I. The Adult Education Classroom

Adult learners who want to improve their basic literacy skills in the subject areas of reading, writing, math, science and/or social studies are provided with instruction. This instruction is self-paced, and is tailored to each learner's tested skill level. Instruction can take several forms: self-directed learning using online and or paper-based materials, one-on-one instruction with either a private tutor or an instructor, in virtual/hybrid classrooms or in a managed classroom environment. Instruction can also take the form of a blended classroom where components of online learning are used in conjunction with face-to-face instruction. The concept of a flipped classroom is also the preferred method of instruction by some AE teachers. This concept expects students to begin the instructional process utilizing one of our approved online learning technologies; then follow up with face-to-face instruction.

The program of study for HSE candidates is individualized to each learner's needs. In addition, all learners can be set up with access to approved distance learning platforms for self-study purposes and are given appropriate homework assignments whenever possible..
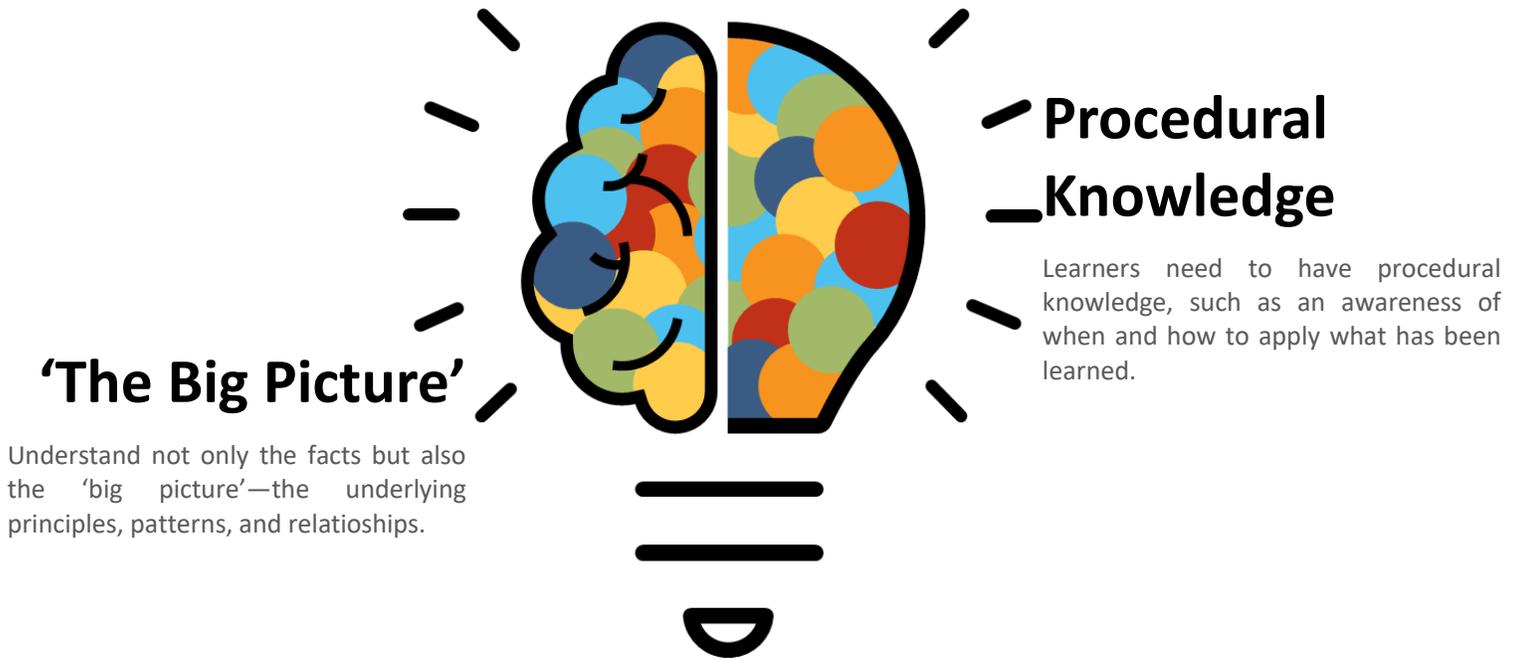
All learners are pre-tested at in-take and post-tested at exit or after 30-60 hours of continuous instruction. The Test of Adult Basic Education (TABE) 11 assessment is used when learners first commence a course of instruction and the TABE 12 assessment is used when a learner completes a program of study or after a minimum of 40 hours of instruction. TABE CLAS-E is used for all non-native speakers of English. All learner scores are recorded for pre and post test purposes. Scores are maintained in the LACES database.

A. Contextualizing Instruction

Early in the 1990's, a report from the Secretary's Commission on Acquiring Necessary Skills (SCANS) stated that acquiring job-related content and basic academic skills is not enough to prepare adults and youth to be effective on the job. Just as important, it said, are interpersonal, decision-making, and planning skills along with the knowledge of when and how to apply these skills within the context of the workplace. This same report indicated that teaching these skills would require instructional approaches that focus on cooperative learning**,** apprenticeship models**,** and teamwork**.**

The 1990's also produced some sound research about the importance of teaching basic skills "in context**".** This cognitive research (about how people learn and develop expertise) showed that knowledge learned only at the level of rote memorization rarely transfers from one context to another. With the way that most people's brains work, it just isn't effective to first teach skills and knowledge separated from their context, and then hope that learners will end up knowing how to transfer what they have learned to life outside the classroom. Instead, learning will transfer more effectively when learners understand the 'big picture' and develop procedural knowledge.

Figure 8.1: Effective Learner Transfer

Procedural Knowledge

Learners need to have procedural knowledge, such as an awareness of when and how to apply what has been learned.

'The Big Picture'

Understand not only the facts but also the 'big picture'—the underlying principles, patterns, and relatioships.

Learners can only acquire this kind of understanding through the application of their knowledge in practice. It is this potential for "application in practice " that makes contextualized instruction so effective; plus, a lot of important incidental learning can take place when learners are encouraged to develop knowledge and skills within a social context.
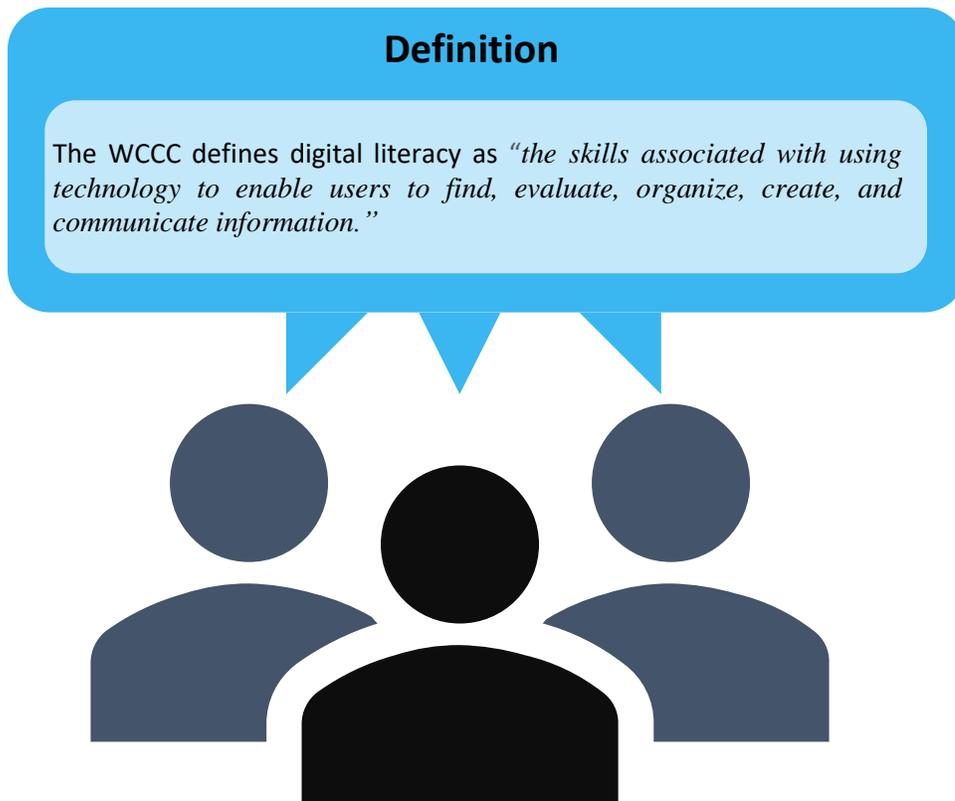
Contextualizing instruction is critical to comprehension as many people learn better and faster, and retain information longer, when they are taught concepts in context.

Instructors are encouraged to contextualize materials around a student's identified career track whenever possible. There is a wealth of materials available on various internet sites and the State has compiled some contextualized units as well. These may be found at: https://communitycolleges.wy.edu/instructional-videos-links-curricula/.

Developing Contextualized Curricula

To help facilitate the development of contextualized instruction, the Career Ladders Project created a "How To Manual" which Adult Education Programs can use. This manual contains guidance, worksheets, and various useful tools to help programs develop contextualized curricula. The manual is available on line at: https://tcall.tamu.edu/docs/ContextualizatingAdultEdInstructionCareerPathways.pdf

B. *Digital Literacy*

<div style="text-align:center">

Definition

The WCCC defines digital literacy as *"the skills associated with using technology to enable users to find, evaluate, organize, create, and communicate information."*

</div>

Digital literacy is critical to the success of adult learners. Adult Education centers need to support the digital literacy development of their learners by integrating digital technologies into the classroom. This is especially important in today's technology-rich society, which expects us to have access to digital technology and the skills to effective use them. Unfortunately, many of the adult learners served by AE programs do not possess these types of skills.

In many parts of Wyoming, the lack of digital literacy skills is intensified due to a lack of access to broadband services. When Wi-Fi is not accessible, participants are forced to use the small screens on their phones and limited and expensive data plans to do complex tasks such as filling out job applications. It is reasonable to conclude that if AE learners cannot achieve digital competence within AE programs, where they may have access to Wi-Fi, easier to use computers, and support from teachers and tutors, they might not have any chance to do so. This missed opportunity will impact their participation in work and daily life.
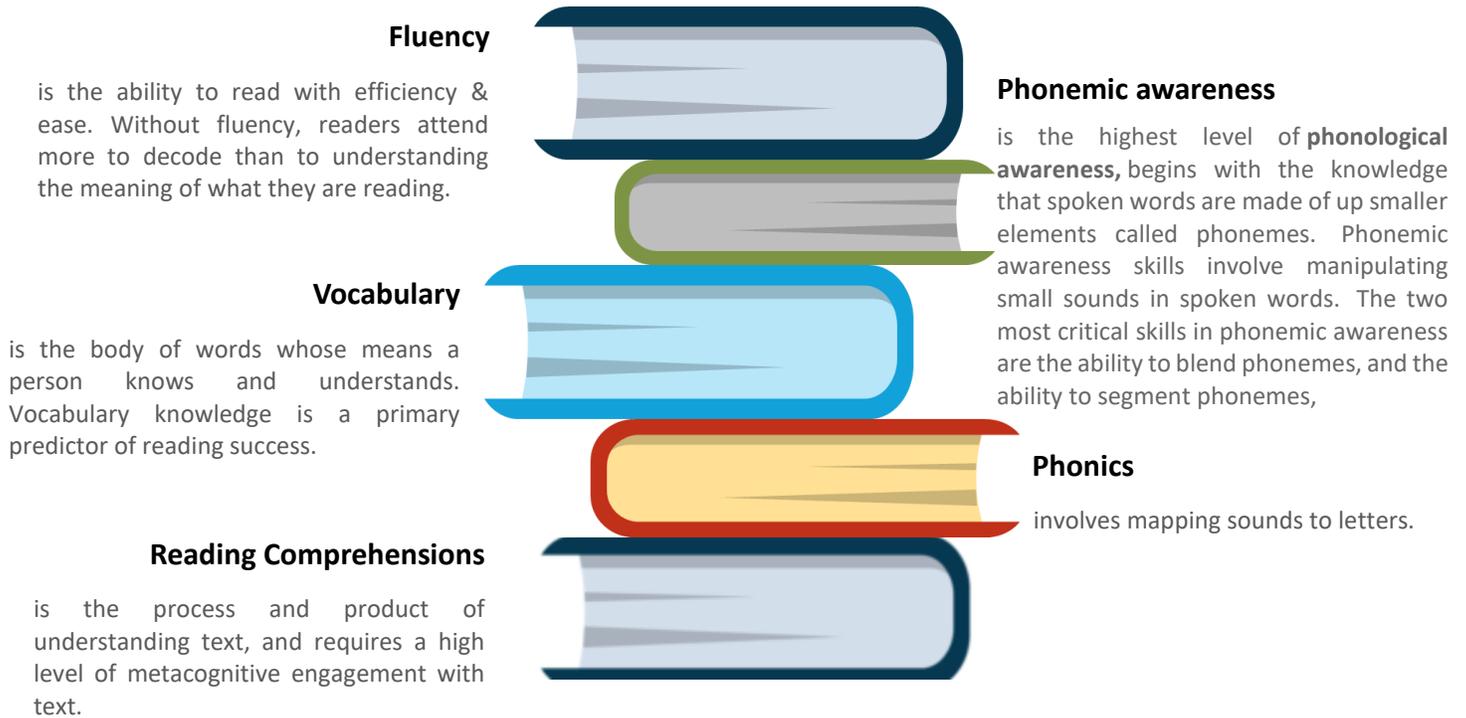
Digital Literacy Guidebook

In July 2021, the State adopted the Digital Literacy Guidebook, initially produced by Massachusetts. This guidebook can be found in Appendix #1 to this chapter.

C. *Essential Components of Reading (ECR)*

WIOA requires that Adult Education programs teach the ECR (See Appendix #2), to all students, both native speakers and non-native speakers of English. Reading is an astonishingly complex cognitive process. While we often think of reading as one singular act, our brains are actually engaging in a number of tasks simultaneously when we read. There are five components in the process of learning to read:

Figure 8.2: Essential Components of Reading

Fluency

is the ability to read with efficiency & ease. Without fluency, readers attend more to decode than to understanding the meaning of what they are reading.

Phonemic awareness

is the highest level of **phonological awareness,** begins with the knowledge that spoken words are made of up smaller elements called phonemes. Phonemic awareness skills involve manipulating small sounds in spoken words. The two most critical skills in phonemic awareness are the ability to blend phonemes, and the ability to segment phonemes,

Vocabulary

is the body of words whose means a person knows and understands. Vocabulary knowledge is a primary predictor of reading success.

Phonics

involves mapping sounds to letters.

Reading Comprehensions

is the process and product of understanding text, and requires a high level of metacognitive engagement with text.

As individuals learn to read, they must develop skills in all of these components in order to become successful readers. Struggling readers often have foundational gaps in one of more of these components.

In order to comply to federal legislation regarding ECR, the State implemented it's Essential Components of Reading Policy. Local program directors should periodically review this policy to ensure that local curricula is in compliance.

D. Use of Standards in the Classroom

The Office of Career, Technical & Adult Education (OCTAE) has established federal level content standards for Adult Basic Education in Mathematics, Reading/Writing, and for ESL. These standards provide a series of objectives, which if attained, will prepare students for work, school, and life in the United States. These standards should be used by instructors as benchmarks to evaluate a student's achievement/non achievement of goals.

1) College and Career Readiness Standards for Adult Education can be found at:
   https://communitycolleges.wy.edu/adult-education/directors/

2) and the ELP standards for use in ESL programs of study are available at:
   https://communitycolleges.wy.edu/adult-education/directors/

Employability and Social Capital Standards in use by the Wyoming Adult Education programs are shown below and need to be addressed by instructors when designing effective lesson plans.

EMPLOYABILITY SKILLS

The employable adult should be able to:

E.1.   Effectively contribute to a team as demonstrated through cooperation, leadership, giving, and accepting critical feedback to work toward a common goal.

E.2.   Utilize workplace tools and technologies to communicate effectively (e.g., memos/e-mails, basic computer programs, phone systems).

E.3.   Model compliance of workplace policies and procedures.

E.4.   Utilize and support workplace organizational structures (e.g., company departments, corporate goals, chain of command).

E.5.   Utilize resources responsibly.

E.6.   Identify and effectively use skills and materials needed for a particular task.

E.7.   Accurately analyze information and respond appropriately.

E.8.   Interact with others in a professional manner.

E.9.   Analyze self-performance to better understand strengths and areas for improvement.

E.10.   Seek out opportunities for advancement and improvement of personal skills.

SOCIAL CAPTIAL SKILLS

The adult should be able to:

SCS.1.   Speak in front of others and speak with intention.

SCS.2.   Take turns to speak; know when to pass.

SCS.3.   Listen with attention, talk from the heart, hold judgement, and offer support to peers.

SCS.4.   Look for the positive; manage negative situations; look at life, people, and daily situations from a positive vantage point.

SCS.5.   Approach challenges or problems from a strengths-based, positive view; build on what is known.

SCS.6.   Work in a team; listen and discuss diverse ideas or opinions; build a collective diagram or model; self-advocate; put abstract ideas into a visual representation and symbol; active listening; peer learning, and coaching, etc.

SCS.7.   Manage time.

SCS.8.   Take a leadership role.

SCS.9.   Ask questions.

SCS.10.   Offer something of interest to others; actively listens; asks for help and offers to help; write about and/or summarize a conversation.

While addressing academic skills at the appropriate level is vital, it is also critical for instructors to select instructional materials and methods that will not simply provide rote drill of learning skills, but also offer the depth of knowledge needed to prepare students for work and/or post-secondary education.

E. *Career Planning in the Adult Education Classroom*

Adults who enter a Wyoming Adult Education program come with a variety of personal goals. Often the general adult education students will state that they are just there to get the high school equivalency diploma. However, it is no longer enough to earn a high school credential in order to make a family-sustaining wage. If asked about their goals, English Language Learners (ELLs) often say they just want to learn to speak English, or that they want to pass the citizenship test. These students will need to say more than just a few basic English words or phrases to become integrated into our communities.

In reality, for many of our students, the ultimate aim (whether they express it or are even aware of it) is probably to acquire or retain a decent job. In order to do that, they may have further steps to take that they have not begun to plan for (i.e., enrolling in further training or entering college). In many cases, they may not realize that the Adult Education program can help them with more than test preparation

Adult Education has shifted the focus of its classes away from passing the state-approved high school equivalency assessment as the primary end goal. Wyoming's Adult Education programs now focus on ensuring that adult learners not only acquire the necessary reading, writing, math, and English language skills, but also the communication, technology, critical thinking, and problem-solving skills needed for success as workers, students, family members, and citizens. Our programs will encourage students to plan for the next step and will assist them in preparing for a career or for further education or training.

It is important to orient students to the various services offered by your program. This may be the one and only opportunity you will have to let them know that even if they DO NOT pass their test, they can continue in the Adult Education program to study and prepare to take it again. If they DO pass the test, they can continue to prepare for their next step (career or college readiness).

Some students may choose to enroll in the distance education program and decide to work outside of the classroom most or all of the time. Again, this may be your best opportunity to help them look beyond their immediate desire to work online to improve academic skills in preparation for a test.

F. *Career Explorations*

Career Explorations involves helping students identify their interests, aptitudes, and educational achievements. Another part of career exploration is having students gather information on different occupations they might want to pursue. This process would include investigating educational requirements, expected salary, and availability of training programs, jobs in the field, etc. for a chosen occupation. In Wyoming, career explorations is part of the Career Service course and includes some or all of the following aspects:

➢ Career assessment
➢ Web-based portfolios
➢ Occupational searches
➢ Identification of training & work requirements
➢ Identification of career plans
➢ Selection of a training options

After completing a career exploration, instructors should introduce students to the career pathways model and provide information about career pathways to in-demand jobs for the State of Wyoming. (http://doe.state.wy.us/lmi/projections/2020/Short_term_Occs_2019-21.html)

G. Career Goals

Once a program has collected the intake information including results of screenings, learning style inventories, self-assessment checklists, academic assessments, and/or career interest and aptitude inventories, it is time to review the personal goals identified by the students. Help them to decide the most important reasons for coming to the program and specifically what they want to accomplish in the class.

Some students may not have even considered what to do after obtaining the high school equivalency diploma, but may now want to set specific goals (e.g., work readiness, preparation for entry into a post-secondary education or training program, etc.).

Discuss students' career interests and aptitudes in relation to the in-demand jobs in the area. Determine if they will be able to work toward some type of certificate (Career Readiness, Digital Literacy, etc.).

It is important that students begin to see steps toward a career pathway. You will need to provide information on local job providers and Workforce Career Centers; and about postsecondary training opportunities in Career Technical Education (CTE) adult programs, apprenticeship programs, community colleges and universities, etc.

Decide with them on a Plan of Study that outlines some steps to meeting various goals. Discuss a timeline based on their willingness to study. The Plan of Study should also identify career pathways and outline course materials, group lessons, and individual assignments. Show students how to keep track of what they are accomplishing. Remember to revisit program goals periodically or after the student has completed an interim assessment. At entry, a student may have indicated that she was actively seeking a job, but now has discovered she wants to enter a post-secondary training program first. The job goal has become long-term; in the meantime the student plans to register for a nursing program very soon.

H. Screening Tools

PowerPath is a screening tool for all Adult Education programs in Wyoming. Instructors have to be trained by certified teachers to conduct these screenings.

PowerPath is a screening system that helps to identify and address specific learning challenges for Visual Stress Syndrome (VSS), Attention Challenges (AC), Vision and Hearing. There are also two optional components that instructors have available to them: A culturally & linguistic different profile and the assessment of phonological skills.

PowerPath screenings should be made available to all students and instructors are to encourage students to complete them. However, if a student does not want to complete the screening, they need only complete the page on the response booklet to decline the screening. Students who decline the screening MUST have this signed document on file AND the instructor must indicate in writing (either through email or by some other means) that the student has declined the screening.

Non-native speakers of English should NOT be given this screening until they have begun to transition out of ESL.

Smarter Strategies

Once a student has completed all of their screenings AND their report has been printed, they should complete a Smarter Strategy sheet.

In order to complete the form, the instructor and the student review the suggested strategies found in the students' individualized report. Strategies that the student indicates a willingness to try should be written on this sheet. The purpose of this form is to provide the student with an easy reference of selected strategies. We all know that students will in all likelihood not read or reread their reports once it is given to them; therefore, by identifying new strategies on this sheet the idea is that they may be more inclined to use new strategies if they see them written on a separate sheet.

Once completed, a copy is to be given to the student and a copy maintained locally in a student file.

Culturally & Linguistically Different Profile

This is an optional screening tool that can be used with non-native speaking students, particularly those who are transitioning into regular Adult Education classes. However, before using the form, instructors must read the CLD User's Guide.

Assessment of Phonological Skills

SCORING THE APS — Fill in the circle in score column if the answer is correct. Leave circle blank if the answer is incorrect. Note actual participant responses in designated box when possible. Mark "SC" if learner self-corrects.

The APS should be administered to: 1) NNSE- L = Non-native speakers of English at SPL IV-V*) , 2) NNSE-H =Non-native English speakers scoring at SPL VI or above*, or 3) Native English speakers with reading scores at 5.0 or below. (*See CLD Form for details on SPLs)

SCREENING 1 REPEATING WORDS -- PM (Phonological Memory)

Word	Pronunciation	Correct?
1. hospital		○
2. requisition		○
3. vernacular		○
4. precipitated		○
5. destructability		○

Total Correct: _____ / 5

Rating for Repeating Words (circle one)
0-2/5 = Poor
3/5 = Fair
4-5/5 = Good

SCREENING 2 REPEATING SENTENCES -- PM (Phonological Memory)

Sentence	Score
1. Dave found some money.	○
2. The traffic was very bad today.	○
3. The class is meeting in that big room.	○
4. Magazines can be interesting.	○
5. What time do you get up in the morning?	○
STOP IF ERRORS IN 2 OR MORE SENTENCES	
6. Copy all these sentences into your notebook.	○
7. Can you come with me to the library?	○
8. When I dropped an egg on the floor, it broke.	○
9. If you don't understand, be sure to ask a lot of questions.	○
10. The biology assignment was more difficult than we expected.	○

Total Correct: _____ / 10

Rating for Repeating Sentences (circle one)
0-2/5 = Poor
3/5 = Fair
4-5/5 = Good
0-4/10 = Poor
5-7/10 = Fair
8-10/10 = Good

SCREENING 3 COUNTING WORDS IN SENTENCES -- PA (Phonological Awareness)

Sentence	# of Words	Score
1. My car is not blue.	5	○
2. November is much colder than September.	6	○
3. Is the bag of books under the table?	8	○
4. Writing is extraordinarily difficult.	4	○
5. Put these papers in the back of your notebook.	9	○

Total Correct: _____ / 5

Rating for Counting Words (circle one)
0-2/5 = Poor
3/5 = Fair
4-5/5 = Good

SCREENING 4 COUNTING SYLLABLES IN WORDS-- PA (Phonological Awareness)

Word	# of syllables	Score
1. later	2	○
2. redundant	3	○
3. black	1	○
4. monomania	5	○
5. dependability	6	○

Total Correct: _____ / 5

Rating for Counting Syllables (circle one)
0-2/5 = Poor
3/5 = Fair
4-5/5 = Good

SCREENING 5 DELETION -- PA (Phonological Awareness)

STOP IF ERRORS IN 2 OR MORE WORDS

Word	Remove	Response	Score		Word	Remove	Response	Score
1. downspout	/down/	spout	○		6. cold	/k/	old	○
2. baby	/bay/	be	○		7. grasp	/P/	grass	○
3. paragraph	/graf/	/para/	○		8. mashed	/sh/	mat	○
4. radio	/ee/	/raydo/	○		9. snail	/N/	sail	○
5. memorial	/mehl/	/morial/	○		10. winter	/T/	winner	○

Total Correct: _____ / 10

Rating for Deletion (circle one)
0-2/5 = Poor
3/5 = Fair
4-5/5 = Good
0-4/10 = Poor
5-7/10 = Fair
8-10/10 = Good

CONTINUE FOR NON-NATIVE SPEAKERS OF ENGLISH- HIGH AND NATIVE SPEAKERS ONLY

SCREENING 6 HEARING RHYME -- PA (Phonological Awareness)

Word Pair		Rhyme	Score		Word Pair		Rhyme	Score
1. back	sack	Y	○		6. champ	chump	N	○
2. true	shoe	Y	○		7. doubting	pouting	Y	○
3. groan	grin	N	○		8. tree	flee	Y	○
4. cow	now	Y	○		9. river	sliver	Y	○
5. clod	clad	N	○		10. stale	steal	N	○

Total Correct: _____ / 10

Rating for Hearing Rhyme (circle one)
0-4/10 = Poor
5-7/10 = Fair
8-10/10 = Good

SCREENING 7 PRODUCING RHYME -- PM (Phonological Memory)

Word	Response	Score		Word	Response	Score
1. lat		○		6. lert		○
2. wight		○		7. foat		○
3. gace		○		8. rable		○
4. dreeper		○		9. prower		○
5. zool		○		10. vug		○

Total Correct: _____ / 10

Rating for Producing Rhyme (circle one)
0-4/10 = Poor
5-7/10 = Fair
8-10/10 = Good

CONTINUE FOR NON-NATIVE SPEAKERS OF ENGLISH- HIGH (NNSE-H) ONLY IF LITERATE IN AN ALPHABETIC LANGUAGE , INCLUDING ENGLISH; ALSO ADMINISTER TO ALL NATIVE SPEAKERS

SCREENING 8 COUNTING SOUNDS IN WORDS — PA (Phonological Awareness)

Word		# of Phonemes	Score
1. ran	r-a-n	3	○
2. track	t-r-a-k	4	○
3. spends	s-p-e-n-d-s	5	○
4. thoughtful	th-aw-t-f-u-l	6	○
5. undecided	u-n-d-e-c-i-d-e-d	9	○

Total Correct: _____ / 5

Rating for Counting Phonemes (circle one)
0-2/5 = Poor
3/5 = Fair
4-5/5 = Good

This is a nice screening tool available to instructors who may be tasked with teaching ELA or true basic literacy students who cannot read in English. The screening is optional. There are very detailed instructions and explanations on how and when to use this screening. These can be found in the APS User's Guide.

I. *Learner Anxiety in the Classroom*

What the Research Says

"There are two type of anxiety associated with learning: learning anxiety and survival anxiety. Learning anxiety comes from being afraid to try something new for fear that it will be too difficult, that we will look stupid in the attempt, or that we will have to part from old habits that have worked for us in the past. Learning something new can cast us as the deviant in the groups we belong to. It can threaten our self-esteem and, in extreme cases, even our identity." (Coutu, 2002)

Anxiety in the classroom can affect how an individual learns. In fact, it causes the body to prepare itself for 'fight or flight.' What happens in the brain of someone experiencing excessive anxiety is not fully understood. One line of research, says consultant psychiatrist Rajeev Krishnadas, is that it involves the prefrontal cortex and the amygdala – a key region of the brain involved in learning and memory, as well as in the physiological and behavioral responses to fear.

"An external stimulus – sight, hearing, touch, smell and taste – activates a number of regions of the brain, crucially including the amygdala," says Krishnadas. Under normal circumstances, he says "the amygdala is under tight control from the prefrontal cortex, which evaluates the threat associated with the stimulus. If the stimulus is non-threatening, the activity within the amygdala is suppressed. If it is threatening, the amygdala fear response is maintained."

In someone with an anxiety problem, it seems, the brain is making incorrect decisions about what to fear and the prefrontal cortex fails to suppress the amygdala, putting the body into fight or flight mode.
In this state, levels of the hormone adrenaline rise and the sympathetic nervous system – which controls automatic activities (like breathing) rather than conscious action – takes over. The heart rate rises, breathing speeds up and blood is diverted to the limbs, blood pressure and body temperature increase, and you may start to sweat.

This is clearly not a state conducive to learning or concentrating in a seminar, says clinical psychologist Dr Angharad Rudkin. "Even if you manage to take in what is being said, the information is likely to bounce around [in your brain], not being processed properly or stored in your long-term memory." (https://www.theguardian.com/education/2015/nov/21/how-anxiety-scrambles-your-brain-and-makes-it-hard-to-learn)

Helping the Learner Overcome Anxiety

There are numerous activities a teacher can do to help a student with anxiety. Karen Nelson (2019) published an article listing 10 methodologies that can be used. Her publication, available at: https://www.weareteachers.com/help-students-with-anxiety/) incorporates multiple videos and techniques that local program directors should share with instructional staff.

Figure 8.3: Overcoming Learning Anxiety

10-Accommodations

For older students, accommodations can make all the difference. Many students struggle with performance anxiety, especially when it comes to tests. When a student is feeling anxious, their brain simply can't function as effectively. When we can set up our tests and assignments so anxious kids are less stressed, they'll likely perform better. Extended time and cue sheets could help kids who suffer from test anxiety.

9-Use Manipulatives

Offer classroom fidgets, such as stress balls, and other manipulates to distract from the anxiety..

8-Share a Story!

With younger individuals, managing anxiety can sometimes be overcome by sharing a story.

7-Eat Well

A healthy diet and plenty of sleep make a difference in how well a student is able to handle sitations that could be overshelming.

1-Deep Breaths

Taking deep breaths helps slow down the brain which improves concentration

2-Take a Break

Taking a break can calm an anxious mind.

3-Talk about Anxiety

Don't set anxiety up as something you want (or should) get rid of. It's part of life, and it's not realistic to think it'll go away completely.

4-Get Moving!

Exercise helps anyone who is feeling anxious!

5-Walk & Talk

Walking removes the person from the situation while giving the individual the opportunity to talk about the cause of anxiety.

6-Keep a Gratitude Journal

The brain is incapable of producing anxious thoughts while it is producing positive thoughts stemming from gratitude. If you can trigger a positive train of thought, you can sometimes derail the anxiety.
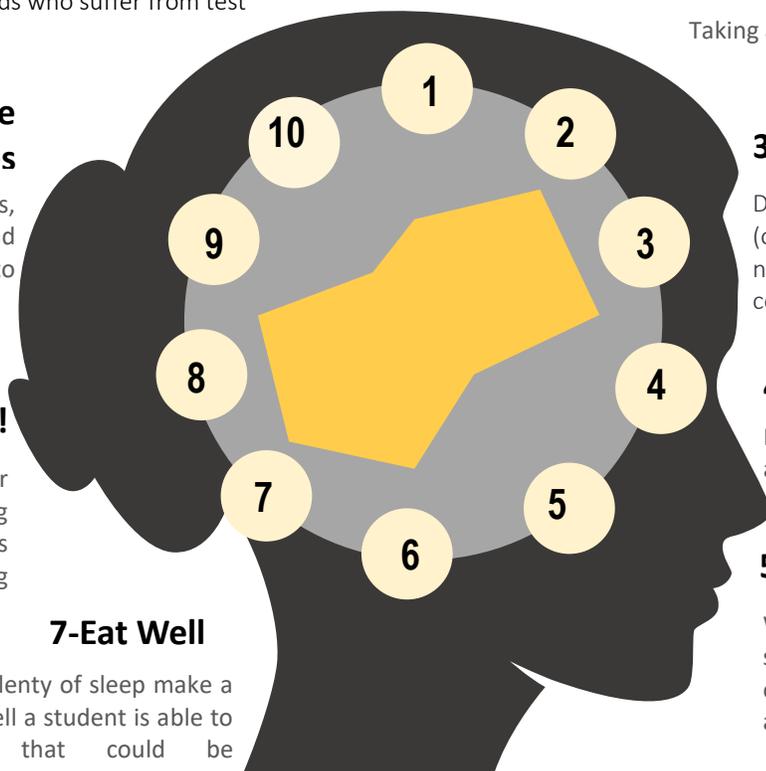
See Appendix #3-5 for Anxiety Checklists/Inventories

J. *Persistence & Retention*

Programs must retain students long enough to see progress, obtain goals, have successes, and achieve outcomes. There are multiple strategies that a program can use in an attempt to increase retention rates.
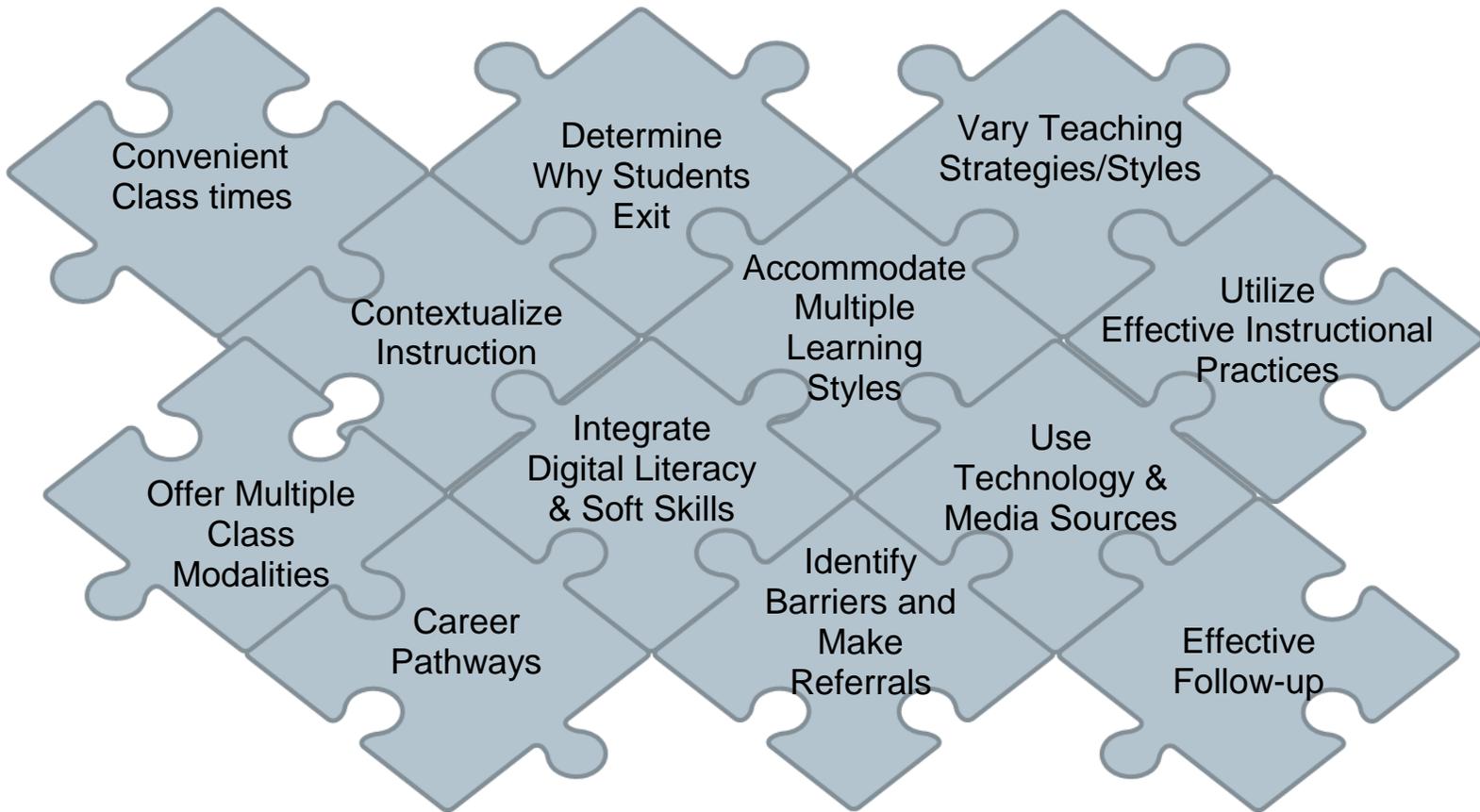
Persistence in the program can at times be a struggle. Students may be overwhelmed by life issues and feel that they need to direct their energies elsewhere. Consequently, they may give up. Helping students persist is something the instructor can do by recognizing that there are four pillars of support.
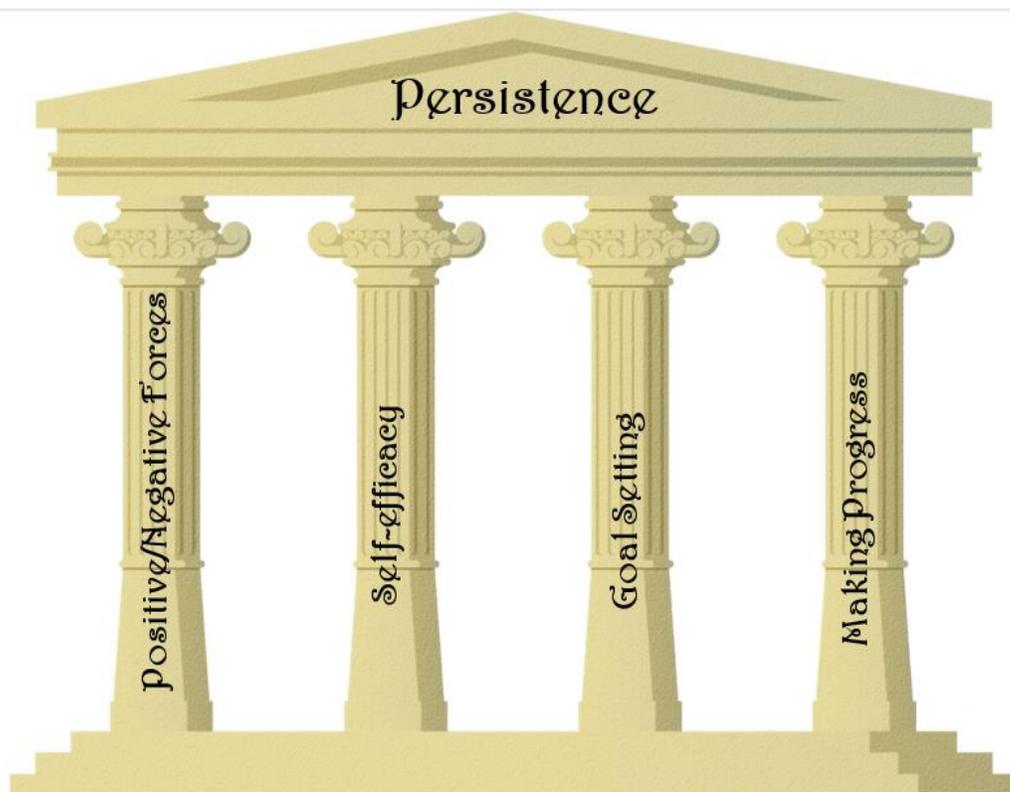
The first support is the awareness and management of the positive and negative forces that help and hinder persistence. (e.g. desire for a higher income/lack of time to study). This is often discovered in the orientation process or at intake when instructors talk about barriers to success.

The second support is self-efficacy—a belief by learners that they can be successful when attempting new activities. Adult Education should provide mastery experiences and vicarious experiences of people like the students who have succeeded which may be guest speakers or a book/video of success stories. Most Career Services course have a video that reflects success stories. Instructors should address physiological and emotional states that can result in low self-esteem and poor self-efficacy, when possible.

The third support is the establishment of a written goal by the student. Setting a goal for educational/career purposes helps establish both short term and long term motivation. It provides the opportunity to focus on the acquisition of knowledge in small manageable chunks and helps to organize time and resources for success.

The final pillar of support is demonstrable or measurable progress towards reaching a goal. Students need to feel as if they are making progress. Instructors should help student celebrate the mastery of both short term and long term goals.

K. *Wyoming At Work Registration*

All students with social security numbers are required to register at wyomingatwork.com. This requirement is clearly identified on the intake form. Step by step instructions, provided by the Wyoming Department of Workforce Services, on how this is to be completed is provided below.

REGISTERING IN WYOMINGATWORK.COM

Before you begin, please note that in order to be fully registered in the Wyoming at Work system and to receive regular job referrals, you must complete all of the following instructions. If at any time you have questions, please contact a Workforce Staff member.

Please note * Indicates required fields
1. Click on *Not Registered*
2. Click on *Individual* under Option 2-Create a User Account
3. Create *User Name* and *Password*
5. Select and answer a *Security Question*
6. Complete all remaining fields
7. Click *NEXT*

Name
1. Enter your *Name*
    a. First Name, Middle Initial (Optional), and Last Name
2. Click *NEXT*

Residential Address
1. Enter your *Address Information*
    a. Include your mailing address or check the box if the same
2. Click *NEXT*

Phone Numbers
1. Enter your *Phone Numbers*
*Note: If you include a Text Message Cell Phone Number then consider messaging rates and/or charges for any correspondence for job notifications.
2. Click *NEXT*

Preferred Notification Method
1. Complete the *Preferred Notification Method* drop-down field
2. Complete the *Site Access* drop-down fields
3. Click *NEXT*

Citizenship/Disability
1. Complete the *Citizenship* drop-down field
2. Select a radio button on the *Disability* section
3. Click *NEXT*

Education Information
1. Complete *Education Information* fields
2. Click *NEXT*

Employment/Farm Worker Information
1. Complete *Employment & Farm Worker Information* fields
2. Click *NEXT*

Job Title/Occupation
1. Complete *Job Title/Occupation* fields
2. Click *NEXT*

Ethnic Origin
1. Complete *Ethnic Origin* fields
2. Click *NEXT*

Military Service
1. Complete *Military Service* fields
2. Click *FINISH*
    a. Continue by selecting the option of *Resume Builder* then follow below for résumé creation
*Note: If you're a Veteran then you qualify for Priority of Service. Please notify the Front that you're a Veteran.

RÉSUMÉ

Employers are able to view your résumé in Wyoming at Work. If they are interested in someone with your skills, they can contact you directly for the job.

1. Click on *Résumé Builder*
2. Click on *Create New Résumé*
3. Enter *Résumé Title* as type of job you are looking for (cook, carpenter, etc.)
    a. You can choose to allow employers to view résumé online (We recommend allowing access to employers to maximize job search) or you can choose hide your résumé from employers.
4. Select *Comprehensive Résumé Creation Method*
*Note: if you have an existing résumé then select the applicable one and follow the prompts
5. Click *NEXT*
6. Click *OK* on the pop-up box to allow employers to view your résumé online

Desired Location
1. Click on *Desired Location* options (Click on *Statewide* or *County/Counties*)
2. Click *NEXT*

Select an Occupation
1. Select an *Occupational Title*
2. Click *NEXT*

Desired Salary
1. Choose your *Desired Salary*
2. Click *NEXT*

Desired Job Type Profile Information
1. Complete *Desired Job Type Profile Information* such as Employment Category and Desired Work Hours
2. Click *NEXT*

Driver's License Information
1. Enter *Driver's License Information* fields
2. Click *NEXT*

Security Clearance
1. Complete *Security Clearance, Language & Proficiency,* and *Typing Speed* fields
2. Click *NEXT*

Resume Layout Templates
1. Complete *Résumé Layout Templates* section with your pre-ference for Chronological, Functional, etc. Select the fields that apply best to your employment & educational background
2. Click *NEXT*

Education and Training
1. Complete *Education and Training* fields
   a. Please note format requirement for completion education/training date, *mm/yyyy*
2. Click to *SAVE*
   a. You can click on the *Add a New Education History* link to add additional Education/Training
3. Click to *NEXT*

Employment History
1. Complete your *Employment History* one job at a time, completing all required fields
   a. Please note the check box to allow employers to see salary history and reasons for leaving
2. Type in *Job Duties* as you want them to appear on your résumé
3. Click *Save* and Click *OK* to save your job skills
4. Click *Add a New Education History* until all previous jobs have been entered
5. When complete, Click *NEXT*

Job Skills
1. Select any applicable *Job Skills* and de-select the ones that don't apply
2. Click on *Modify Skills*
3. Click on all *Job Skill categories* to add your skills. This will provide better job search matches.
4. When finished, Click on *Save Skills and Continue*
5. Click to *NEXT*

Technical Skills and Tools
1. Select any applicable *Technical Skills and Tools* and de-select the one that don't apply
   a. Additional links to add Technical Skills and tools by occupation and keyword are also available at the end of the screen. Click on *Add these Tools and Technology* when completed.
2. Click to *NEXT*

Ability Summary
1. Add any *Abilities or Special Skills* you would like on your résumé; OR
2. Click on *Skip this step* and Click *NEXT*

Objective
1. Type in a *Résumé Objective* if desired; OR
2. Click on *Skip this step* and Click *NEXT*

Honors & Activities
1. Enter any *Honors or Activities* you would like on your résumé; OR
2. Click on *Skip this step* and Click *NEXT*

Additional Information
1. Add any *Additional information* you would like on your résumé; OR
2. Click on *Skip this step* and Click *NEXT*

Contact
1. Review contact information and at the bottom of the page select or de-select the items that you want to appear on your résumé.
2. Click to *NEXT*

Detailed References
1. *Add References* if desired; OR
2. Select the box, *Display "References Available on Request."* on this résumé.
3. Click to *FINISH*

Completed Résumé
1. At the bottom of completed résumé, Click **Save & Return**
Note: You can create up to 20 different résumés.
2. Click on **Return to My Dashboard**
3. Click on **Virtual Recruiter**

VIRTUAL RECRUITER

The Virtual Recruiter will continue to search for jobs for you as often as you like. It will notify you via your message center or email of job openings in the field you have selected.

1. Click on **Create New Job Alert**
2. Enter **Keyword** (type of job looking for; cook, carpenter, etc.)
3. Enter other fields if desired.
4. Click **SEARCH**
Job openings may come up and if so, you can click on the job title to learn more information about the job.
5. At the bottom of page, Click **Save Search**
6. Enter **Title** for Virtual Recruiter (Cook, Carpenter, etc.)
7. Choose how often you would like the search to run.
8. Choose how you would like to be notified.
9. Click **SAVE**
Note: You can create as many different job alerts as you like.

Congratulations! You have now completed your registration in the new Wyoming at Work system.

Wyoming at Work has even more valuable job seeking tools. Be sure and use the system to search for open job listings, labor market information, and training opportunities. It even provides you with your own message center.

ENJOY AND GOOD LUCK ON YOUR JOB SEARCH!

L. HSEC Testing Protocols

All students need to be told early in the process that they will be required to have a valid, government issued photo ID to take their HSEC tests. Students who do not have a photo ID will NOT be allowed to take the test. This ID must be brought with them for every test session.

Most students will also need a credit card, a Paypal account, or a debit card to register for the HSEC test. Students without any of these payment forms, may contact the local test center and ask if they can pay in cash. Typically, the center will allow this and will purchase a voucher which can be used to register for the test.

Age Waiver Applications

All 16 & 17 year old students are required to complete an age waiver application in order to take a high school equivalency assessment. There are three parts to this form.

A) *Demographics*: This page collects demographic information AND specific test related information.
   i.   Test Vendor: This item is to be completed by the 'instructor' after the student begins the registration process for the test. (Test registration on the vendor site should NOT occur until a student has completed a program of study with an AE center). If the student is going to take the HiSET test, the instructor must record the ETS ID number.
B) *School District Withdrawal Verification:* This form must be completed AND uploaded into the student's LACES record before a program of study commences. Because federal regulation prohibits AE programs from enrolling students who are still in school, evidence must be in place that the student has withdrawn from school before they enroll in an AE program of study.
C) *Pretest Verification:* This form requires that the instructor record the passing scores earned on official practice tests. Official practice tests may not be given to a student until they have shown a readiness to test as evidenced by an NRS post-test or by local director approval for extenuating circumstances. Students who have earned comprehensive NRS level 6's on a pre-test will not need a post-test and can take an official practice test after completing a program of study.

Official Practice Tests

HiSET

These tests are replicas of the actual HSE; however practice test times are typically ½ of the actual HSE test times for each of the individual areas. Each year the HiSET test changes in alignment to K-12 common core standards usage in the school systems. Consequently, each year the test becomes harder, which is why new official practice tests are released in the fall of each year.

Official Practice Tests have five areas: Reading, Writing, Social Studies, Math, and Science. These tests **cannot** be given to a student unless the student has:
1) completed a program of study
2) taken a post test (if applicable) and has shown gain. Students who do not show gain on a post test should not be given an OPT in the same subject area. For example, if a student is given a post test in mathematics and both pre and post test scores are at NRS level 2, the student cannot be given an OPT in math. Program success is measured by the number of students who show increases between pre/post testing. It is for this reason that OPT's should not be given to a student who is unable to show EFL gain on the same subject.

OPT's may **not** be used to evaluate initial readiness to enter our programs. TABE or TABE CLAS-E test scores are required for this purpose.

Instructors should give a practice HSE once the instructor believes that the learner has achieved sufficient skills to satisfactorily complete the HSE exam. There are multiple HISET practice tests. Students should NEVER write in test booklets. All answers should be written on the answer sheets provided for these tests. In order to be ready to take the actual HiSET test, students must score 'well prepared' in each subject area.

Answer keys & scoring guides are provided with each test. Writing scores are configured a bit differently than all other tests. Students must earn a 'well prepared' on the multiple choice portion of the test AND must have at least a 2 on the essay to pass the writing portion of the test. The multiple choice section and the essay portion are **not** to be combined in the calculation of a student score.

There are no fees associated with any of the official practice tests for the HiSET exams.

Free Practice Tests (FPT's):
Very savvy students can find these tests as they are readily available
online. Because of this, they should not be the choice of tests given by instructors and can never
be used with an age waiver applicant.

Paid Practice Tests (PPT's):
These are more secured tests as AE programs have to purchase them.
They are available for purchase in electronic versions only.
PPT 1- PPT 5 are outdated tests and cannot be used as an official practice test
PPT 6A: Still valid.
PPT 7: Still valid.

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Official Practice Tests (OPT's):
Like the PPT's, these are very secure tests as they are only available to Adult Education
programs who purchase them for use. They are NOT available in electronic version. Once they
are purchased, hard copies are typically made for instructors to use.

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OPT 1-OPT 3 are outdated tests and can no longer be used
OPT 6A: Still valid
OPT 7: Still valid
OPT 8: Valid
OPT 9: Valid
OPT 10: Valid

Most students in Wyoming take the **HiSET** test and the costs associated with this test vary by type of test.
1. Paper-based testing: $75 for the complete test
   ➢ 5 subjects at $15 per subject for the HiSET exam
   ➢ There are no costs associated with the official practice test for the HiSET as local Adult Education
     centers provide these for free
   ➢ Local test center fees may also be applicable and vary from site to site throughout Wyoming
2. Computer-based testing: $53.75 for the complete test
   ➢ 5 subjects at $10.75 per test
   ➢ There are no costs associated with the official practice test for the HiSET as local Adult Education cents
     provide these for free
   ➢ Local test center fees may apply
3. Virtual Testing: $143.75 for complete test:
   ➢ 5 computer based tests at $10.75 per test
   ➢ 5 online proctoring sessions at $17.50 per test
   ➢ Virtual official practice tests can be delivered through a Wyoming Adult Education center.

GED Ready Practice Test

Students who want to take a GED in Wyoming should take the 'GED Ready' practice
test to determine if they are ready to take a GED exam. These practice tests are
offered online in math, science, social studies, and language arts and cost $6/subject
or $24 for all subjects.

The **GED®** battery costs $104 in paper-based, computer-based, and virtual testing
formats (although pricing for virtual tests may vary):
- 4 subjects GED Ready (an online official practice test) at $6 per subject
- 4 subjects for the GED exam at $20 per subject

Credential Verification

Wyoming's testing centers and Adult Education Centers do not send student transcripts to them. These are available through DiplomaSender.com. Students will be sent one complimentary copy of earned transcripts and of their certificate. If they need additional copies, they will have to create an account on this website using their SSN # as the ID number.

Local program directors and staff members responsible for entering data into LACES need to have an account on DiplomaSender to access student scores. AE staff members who need this access should contact the State.

M. Policies on Environment

Local policy on behavior and dress code should be posted, and programs should obtain signatures of adults confirming that they have been appropriately informed of the policies. ADA signs explaining on-discrimination policies should be posted on a wall or bulletin board in plain sight. Discrimination on the basis of age or other demographic designator, such as requiring learners of a certain age group to participate in services for that age group, is not permitted.

A sample policy for conduct and dress code might include the elements in the draft shown below. Each local program should have its college agency's legal staff review proposed conduct and dress codes to ensure that the codes are legally defensible and are aligned with the policies of the supporting institution.

Local policy on emergency procedures and treatment should be posted, and programs should obtain signatures of adults confirming that they have been informed of the policies. Programs should inform students of fire and tornado procedures and share procedures in case of bomb threats, mass shooter events, life-threatening emergencies, or other disasters in a language that learners can read.

Code of Conduct

For everyone to be able to learn well, _____ asks you to please follow these rules:
                                                                    (Program name)

1) Be aware of the needs of fellow students.
2) Do not disturb others with unnecessary noise, movement, swearing, or other disruptions.
3) Do not physically or verbally abuse, threaten, hit or mistreat any person.
4) Be courteous to and respectful of staff, students, and their property.
5) Do not use, sell, possess, distribute or be under the influence of narcotics, drugs, or alcohol.
6) Do not be in possession of any item that could be considered a weapon.
7) Adhere to building tobacco smoking and chewing policies.
8) Do not bring children or other persons into the study rooms
9) No fundraising, buying, or selling is permitted (such as Avon, Amway, or candy from your child's school
10) Taking plants or animals in to the school requires prior permission from the director.

Dress Code

In _____ learners will always be clean, odor free, and wear shoes.
   (Program Name)

In _____ learners will not:
   (Program Name)

➢ **Dress in such a way that others are distracted from studying.**
➢ **Dress in such a way as to be a danger to themselves or others.**
➢ **Display immoral, obscene, or indecent messages or pictures.**
➢ **Display messages or pictures promoting violence, gang activity or drugs (including alcohol and tobacco)**

Failure to follow the Code of Conduct or Dress Code policy may result in dismissal.
I have read, or had read to me, and understand this page:

Student signature:_____   Date:_____

Staff Member signature:_____   Date:_____

II.   Planning a Classroom

There are multiple classroom structures for different physical settings. If the program is housed on a main campus or provider site, there may be managed classes, open labs, or tutoring by peers or volunteers. If programs are located at a satellite site, they may have small group instruction or "a one room schoolhouse" with all levels, ages and subjects being taught and studied. And with the onset of COVID-19, the virtual classroom and/or hybrid classrooms became more common.

When planning a classroom, instructors usually start from what they know. If they are a certified teacher and have taught, they will approach students from their training and experience. If their background is from another field or content area, they might look back at their own educational experiences to the model of a successful teacher they had when attending school and try to imitate that style of teaching. This is a good starting place but teaching Adult Basic Education requires instructors to teach adults from 16 to 60 and older and because of this a "one teaching style fits all" approach may not be successful. Additionally, people tend to teach the way they (themselves) learn best. Here again, this is not always the best way to help the students.

There are many things to plan and many things to consider in planning for an AE classroom
  ➢ Adult Education Theories & Strategies (See Chapter 9)
  ➢ Use of Technology: Audio-visual, SMART boards, hand-held mobile devices, social media platforms
  ➢ Virtual/online assessments: TABE, TABE CLAS-E, Official Practice Tests, HiSET, GED
  ➢ Computer-Based instruction: Essential Education, AZTEC, Skills Tutor, Edmentum, USA Learns, Rosetta Stone, and others as outlined in the Wyoming Distance Learning policy.
  ➢ Internet: Emailing, online research, etc.
  ➢ Effective Lesson Planning: There are many ways to create lesson plans, but all AE sites are required to utilize research and evidence based instructional practices and Webb's Depth of Knowledge in the delivery of lessons. Your program may have a bank of lesson plans or you may want to create your own and share with others.

TEAL
Teaching Excellence
in Adult Literacy

TEAL Center Fact Sheet No. 8: Effective Lesson Planning   2010

Effective Lesson Planning

Planning ahead to identify a course of action that can effectively help learners reach their goals and objectives is an important first step in effective instruction. Lesson planning communicates to learners what they will learn and how their goals will be assessed, and it helps instructors organize content, materials, time, instructional strategies, and assistance in the classroom.

About Effective Lesson Planning

Planning ahead to identify a course of action that can effectively reach goals and objectives is an important first step in any process, and education is no exception. In education, the planning tool is the lesson plan, which is a detailed description of an instructor's course of instruction for an individual lesson intended to help learners achieve a particular learning objective. Lesson plans communicate to learners what they will learn and how they will be assessed, and they help instructors organize content, materials, time, instructional strategies, and assistance in the classroom. Lesson planning helps English as a second language (ESL), adult basic education (ABE), adult secondary education (ASE), and other instructors create a smooth instructional flow and scaffold instruction for learners.

The Lesson Planning Process

Before the actual delivery of a lesson, instructors engage in a planning process. During this process, they determine the **lesson topic** (if states have implemented content standards, the topic should derive from them). From the topic derive the lesson **objective** or **desired results**—the concepts and ideas that learners are expected to develop and the specific knowledge and skills that learners are expected to

acquire and use at the end of the lesson. Objectives are critical to effective instruction, because they help instructors plan the instructional strategies and activities they will use, including the materials and resources to support learning. It is essential that the objective be clear and describe the intended learning outcome. Objectives can communicate to learners what is expected of them—but only if they are shared with learners in an accessible manner. Instructional objectives must be specific, outcome-based, and measurable, and they must describe learner behavior. Heinich et al. (2001) refer to the **ABCD**'s of writing objectives:

Audience – learners for whom the objective is written (e.g., ESL, ABE, GED);

Behavior – the verb that describes what the audience will be able to do (e.g., describe, explain, locate, synthesize, argue, communicate);

Condition – the circumstances under which the audience will perform the behavior (e.g., when a learner obtains medicine from the pharmacy he or she will be able to read the dosage); and

Degree – acceptable performance of the behavior (i.e., how well the learner performs the behavior).

Learner assessment follows from the objectives. Based on the principles of *backward design* developed by Wiggins and McTighe (1998), instructors identify the lesson objective or desired results and then decide what they will accept as evidence of learners' knowledge and skills. The concept of backward design holds that the instructor must begin with the end in mind (i.e., what the student should be able to know, understand, or do) and then map backward from the desired result to the current time and the students' current ability/skill levels to determine the best way to reach the performance goal.

1

The WIPPEA Model for Lesson Planning

The WIPPEA Model, an acronym that stands for Warm-up, Introduction, Presentation, Practice, Evaluation, Application, is a lesson plan model that represents a continuous teaching cycle in which each learning concept builds on the previous one, serving as an instructional roadmap for instructors. The WIPPEA lesson plan model is adapted from the work of Hunter (Mastery Teaching, 1982). This six-step cyclical lesson planning approach has learners demonstrate mastery of concepts and content at each step before the instructor proceeds to the next step. See TEAL Center suggestions in *italics* below for incorporating each of these elements.

Warm-up – Assesses prior knowledge by reviewing previous materials relevant to the current lesson. *Introduce an activity that reviews previously learned content (e.g., for a vocabulary lesson, the warm-up may be a quick matching exercise with words previously learned and their definitions), and also include an activity that focuses on the topic to be taught.*

Introduction – Provides a broad overview of the content and concepts to be taught and focuses the learners' attention on the new lesson. *Introduce the purpose of the lesson by stating and writing the objectives for learners and discussing the lesson content and benefits by relating the objective to learners' own lives. Assess learners' prior knowledge of the new material by asking questions and writing learners' responses on a chalkboard or flip chart.*

Presentation – Teaches the lesson content and concepts. *Create an activity to introduce the concept or skill (e.g., introduce new vocabulary by asking learners to work in groups to identify words related to taking medications) and then introduce information through a variety of modalities using visuals, realia, description, explanation, and written text. Check for learner understanding of the new material and make changes in lesson procedures if necessary.*

Practice – Models the skills and provides opportunities for guided practice. *Introduce a variety of activities that allow learners to work in groups, in pairs, or inde-*

pendently to practice the skills, concepts, and information presented. Integrate technology into activities as available.

Evaluation – Assesses each learner's attainment of the objective. *Include oral, aural, written, or applied performance assessments. For example, ask students to fill in the blanks on a cloze activity using the four medicine warning labels that were discussed in class. For lower level learners, provide a word bank at the bottom of the worksheet. Omit the word bank for more advanced students.*

Application – Provides activities that help learners apply their learning to new situations or contexts
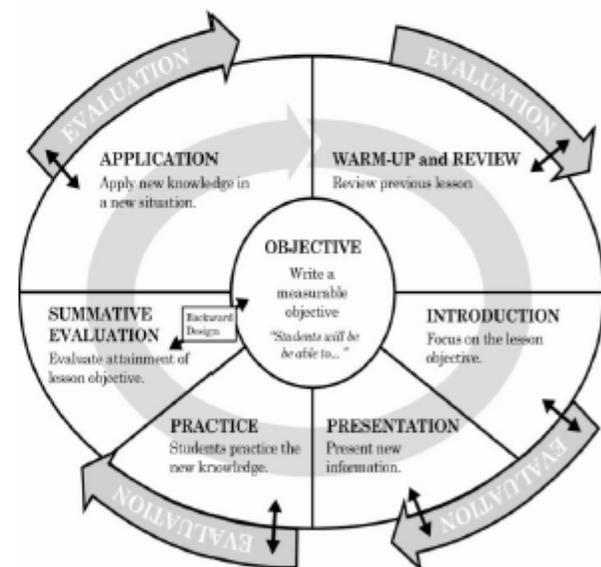

Figure 1. Planning Wheel

Choose activities that learners can relate to or have expressed concern about. For example, have learners read the label of a medication they or a family member may use at home to make certain they understand the meaning of the words on the label. Gather feedback from learners in follow-up classes and help them assess what additional support, if any, they may require.

The following graphic integrates the WIPPEA process with backward design in a lesson planning wheel. In this cyclical approach, teachers assess prior knowledge, provide a broad overview of the content/concepts to be taught, introduce vocabulary, teach content/concepts, check comprehension, combine the content and vocabulary through guided practice, evaluate student performance, and provide an application activity. Instructional strategies vary depending on the lesson content and skill areas, and the needs of the learners.

Planning for differentiated instruction requires various learner profiles to inform the process; see the TEAL Center fact sheet, No. 5. Students demonstrate mastery of concepts/ content in each step before the teacher proceeds to the next step.

The relationship of the objective to the evaluation keeps the lesson focused and drives instruction. By keeping the end in mind (backward design) and creating the evaluation activity at the beginning of the lesson, the teacher has a clear destination for the lesson and a roadmap to get there. Instructors can then select materials and activities that will best prepare students to successfully complete the evaluation activity

in the lesson. The process is repeated for each learning objective. Lesson planning is an ongoing process in which instruction flows from one objective to the next. This cyclical process is repeated for each learning objective.

How Does Lesson Planning Benefit Learners and Instructors?

Instructors and learners benefit from thoughtful lesson planning. It provides a framework for instruction, and it guides implementation of standards-based education. Lesson planning establishes a road map for instructors of what has been taught and what needs to be taught. It allows them to focus on one objective at a time and communicate to learners what they will learn in each lesson. Because lessons incorporate ongoing assessments that determine how well learners understand concepts and skills, instructors are able to make mid-course changes in instructional procedures or provide additional support to learners. Additionally, the practice and application components of the lesson help learners use the new skills and knowledge in educational and other settings, thus promoting generalization and relevance.

References

Barroso, K., & Pon, S. (2005). *Effective lesson planning, A facilitator's guide*. California Adult Literacy Professional Development Project. American Institutes for Research, Sacramento, CA.

Heinich, R., Molenda, M., Russell, J., & Smaldino, S. (2001). *Instructional media and technologies for learning*. Engle Cliffs (7th edition), NJ: Prentice Hall.

Hunter, Madeline. (1982). *Mastery teaching*. El Segundo, CA: TIP Publications.

Wiggins, G., & McTighe, J. (1998). *Understanding by design*. Association for Supervision and Curriculum Development, Alexandria, VA.

Integrated Learning Maps

The purpose of the Integrated Learning Maps is to help guide the learning process for an individual student, rather than a lesson plan for a managed enrolled classroom situation. ILM's provide the tools in which identified standards based goals are set for individual students.

Integrated Student Learning Maps

Name:_____   Date:_____
Site:_____   Career Cluster:_____

Program Service (to be completed by instructor)

What **Academic Skills** will the student know and be able to do? Standard(s):

What **Work Readiness Skills** will the student practice? Social Capital Skills & Social/Emotional Skills

Work Readiness Skills: In this section, instructors must identify the work readiness skill standards that will be targeted for instruction. These standards consist of Employability Skill Standards as well as Social Capital Skill Standards.

Academic Skills: in this section, instructors must identify the individual standards that are to be targeted. (i.e. The College & Career Readiness Standards)

In the next section of the ILM, instructors are expected to complete the learning target, learning steps, methodology, and the resources that are to be used in teaching the standards identified above.

Learning Tasks (to be completed by student & instructor together)

☐ Academic   ☐ Work Readiness
Learning Target:
By _____, I will be able to:

Learning Steps:

Methodology:

Resources:

☐ Academic   ☐ Work Readiness
Learning Target:
By _____, I will be able to:

Learning Steps:

Methodology:

Resources:

First, identify the date and the goal achievement date.

Next, identify what steps will have to be taken to achieve the targeted goal.

Third, identify how this will be accomplished.

Finally, identify the resources that will be used to achieve this.

The next part of the ILM consists of a short explanation of how mastery will be demonstrated.

Demonstration of Mastery

How will student demonstrate mastery or proficiency of topic content?

And lastly, a short description of what the next step(s) will be in helping the student achieve his/her goal(s).

Next Steps??

Adult Education programs which utilize managed enrollment processes typically require instructors to complete Integrated Learning plans, which serve as lesson plans.

Integrated Learning Plan

Unit Title Reading Class: Informational Text/Nonfiction

Sub-Unit of ILP Compare and Contrast

Focus
What Academic Skills/CCR Skills will the students know and be able to do?

RI.1.1, RI.4.1
RI.8.3
RI.5.5
RI.7.8
RI.1.9, RI.3.9, RI.8.9

Student-Stated Academic Targets

I can: compare and contrast information within an academic passage; compare and contrast two articles on the same topic; and create a Venn diagram to compare and contrast information.

Rigor and Coherence
Depth of Knowledge

DOK Level Two: Compare, Interpret, Distinguish, Organize

DOK Level Three: Differentiate, Draw Conclusions

Methodologies Participatory Learning, etc.

Participatory learning, including group discussion and appreciative inquiry; solo reading.

Focus
What Work Readiness Skills and Social Capital Skills will the students practice?

Comparing and contrasting different individuals' experience; comparing and contrasting viewpoints on business practices and the environment; distinguishing fact vs. opinion; participating in group discussion.

Student-Stated Work Readiness and Social Capital Skill Targets

I can: discuss similarities and differences between different individuals and viewpoints; tell the difference between facts and opinions in written material; and participate in group discussion.

Rigor and Coherence
Depth of Knowledge

DOK Level Two: Compare, Interpret, Distinguish, Organize

DOK Level Three: Differentiate, Draw Conclusions

Methodologies Participatory Learning, etc.

Participatory learning, including group discussion and appreciative inquiry; solo reading.

Application to Career

Knowledge and Complexity
Resources and Technology

"A Tale of Two Georges" from *College and Career Readiness Practice Workbook: Reading Informational Text* (McGraw-Hill); and "Fracking: America's Energy Solution," and "Dangerous Fracking Practices Hurt the Environment," from *Writing for the HiSET Exam 2016 Edition* (New Readers Press); whiteboards and markers; Post-It notes; Venn diagram template sourced online.

Evidence
Demonstration of Mastery How will student demonstrate mastery / proficiency?

Students will demonstrate mastery of "compare and contrast" by creating a Venn diagram which shows the differences and similarities between two articles about fracking and its business and environmental impacts.

Students will demonstrate the ability to distinguish between fact and opinion by evaluating facts and opinions about fracking (written by their classmates) and successfully sorting them into facts vs. opinions.

Next Steps

The reading class will revisit compare and contrast and Venn diagrams in the next session, but with a social studies focus. Fact vs. opinion will also be reinforced in a future class session.

6/31/17

B. *Classroom Modality*

In person

In person classes are offered at all AE centers around the State. This traditional type of learning allows for the delivery of instructional material through live interaction between students and the instructor.

Distance

Wyoming's Adult Education centers incorporate multiple distance learning options for students who are unable to attend the traditional classroom environment. Distance learning (DL) options generally utilize online resources and various other instructional content to help students improve skills in academic areas. Throughout Wyoming, the centers have found that DL to be an effective way to increase access to Adult Education instruction for eligible students. In many cases DL is provided in a 'blended' or 'hybrid' environment in which a learner has some time in the classroom but also completes work outside of the classroom using DL platforms. This can increase the quality of the DL experience for students by providing them with an opportunity for in-person support and instruction, while also allowing for the flexibility of schedule and location that is the main advantage of distance learning.

Virtual

With the onset of COVID-19, Adult Education classes began teaching utilizing ZOOM, Canvas, and other virtual classroom platforms. As we move towards the future these technologies will be integrated into all Adult Education classrooms so that in the event that society must once again move to a virtual environment students will be well prepared and familiar with how to effectively participate in classes held in a virtual environment.

Hyflex/Hybrid

Adult Educators in Wyoming recognize that there are occasions when students cannot physically be in class. As such, our centers often utilize a combination face to face, distance, and in some cases virtual classes so that the needs of our students can be effectively addressed.

C. *Wyoming's Course Offerings*

Bridge Programs

Bridge programs are designed to ease the transition to college and support postsecondary success by providing students with the academic skills and social resources needed to succeed in a college environment. Although the content of the course may vary at each center, the objectives are the same.

Career Service Courses

All Wyoming Adult Education Centers have a Career Services course, but the content may differ depending upon how the program is structured. The primary purpose of this course is not only to provide an orientation to the program, but also an introduction to participatory learning, brain based learning theory, career explorations, and various other components. In most instances, the course is delivered face-to-face, but virtual aspects may also be integrated.

Corrections Education

A program of ABE, ASE, or ELL instruction for adult criminal offenders in correctional institutions.

Concurrent Enrollments with CTE / Postsecondary Education

Qualified Adult Education students with a defined career plan may also be permitted to enroll concurrently in a Career and Technical Education (CTE) program of study or into a postsecondary program while completing a course of study in Adult Education. Quite often, local adult education programs in conjunction with their host college are able to provide tuition waivers to help ease the cost of concurrent enrollments.

ESL/ELA

These courses are designed to help eligible individuals who are English language learners achieve competence in reading, writing, speaking, comprehension of the English language, mathematics, and EL Civics so that they are prepared to enter postsecondary and/or the workforce in the United States.

General Adult Education

These courses equip students with the skills needed to strengthen reading, writing, mathematics, and digital literacy abilities so that they are prepared to enter postsecondary education and/or the workforce.

HSEC

In 2014 the State of Wyoming began to provide multiple pathways for individuals needing to earn a high school equivalency certificate. Today, students may choose to study for and take one of two HSEC exams: the 2014 G.E.D.®, or the HiSET. Targeted instruction is provided in reading, writing, social studies, mathematics, and science.

Integrated Education and Training

The IET class provides adult education and literacy activities concurrently and contextually with workforce preparation activities and workforce training for a specific occupational cluster for the purpose of educational and career advancement.

Integrated English Literacy & Civics Education (IELCE)

IELCE's are educational services provided to English language learners who are adults, including professionals with degrees and credentials in their native countries that enables such adults to achieve competency in the English language and acquire the basic and more advanced skills needed to function effectively as parents, workers, and citizens in the United States. Such services shall include instruction in literacy and English language acquisition and instruction on the rights and responsibilities of citizenship and civic participation, and may include workforce training.

The IELCE program under section 243 (a) of WIOA is designed to:
(a) Prepare adults who are English language learners for, and place such adults in, unsubsidized employment in in-demand industries and occupations that lead to economic self-sufficiency, and
(b) Integrate with the local workforce development system and its functions to carry out the activities of the program.

Wyoming awards only one application for an IELCE grant.

Transitions to College

Qualified participants enroll in this course concurrently while enrolled in other Adult Education courses. The course is designed as a general orientation and transition to college program whereby participants begin to explore and understand the college environment, learn to identify and utilize campus & community resources to enhance the academic experience.

Workplace Literacy

Workplace Literacy is an Adult Education program that offers adult education and literacy activities offered by an eligible provider in collaboration with an employer or employee organization at a workplace or an off-site location that is designed to improve the productivity of the workforce. Workplace adult education and literacy services are customizable and can be provided from the current menu of adult education services or they can be developed in collaboration with an employer to address a specific workforce need. 27

Workforce Preparation

Local Adult Education centers provide literacy instruction designed to help individuals acquire a combination of basic academic skills and employability skills such as critical thinking skills, digital literacy skills, and self-management skills. These activities include competencies in utilizing resources, using information, working with others, understanding systems, and obtaining skills necessary for successful transition into and completion of postsecondary education or training, or employment. Workforce preparation skills are integrated in the adult basic education and literacy curriculum, therefore, occurring concurrently with adult basic and literacy skills instruction. Teachers integrate technology into lesson plans and all students have access to and use of computers and technology to enhance their learning and digital literacy skills.

Work Experience / OJT / Internships / (Pre)apprenticeship

In conjunction with the Wyoming Department of Workforce Services, qualified participants can be placed into one of these training programs to develop a deeper understanding of the responsibilities and expectations of a specific career though hands-on-learning. Programming includes resume writing, job interview skill development and the appropriate use of other social capital skills as needed for careers.

III. Tracking Attendance

A. *Types of Hours*

Local programs must effectively track all attendance hours and enter hours into the LACES data base on a weekly basis. The NRS has defined two types of hours that can be recorded for reporting purposes:

➢ **Contact hours:** direct contact hours involve interaction between the participant and program staff in real time AND where learner identity is verifiable. All participants are required to complete 12 contact hours before they can be counted for federal reporting purposes. These initial twelve hours must be associated with the Career Services course. Contact hours for distance learners can be a combination of actual contact and contact through telephone, video, teleconference, or online communication, where participant and program staff can interact through which participant identify is verifiable. (NRS Technical Assistance Guide)

➢ **Proxy hours**: Proxy hours are defined in one of the three ways shown below. Hours utilizing approved software must be associated with one of the approved distance learning models of instruction.

Learner Mastery Model: Assigns a predetermined number of proxy contact hours based on learner mastery of each lesson or unit in the distance curriculum. Proxy contact hours for learner mastery model curricula are awarded based on a passing score on a content test for a particular assignment, lesson, or unit. The passing rate is set at a minimum of 70 percent unless otherwise recommended during the curriculum approval process.

Clock Time

Learner Mastery

Teacher Verification

Clock Time Model: Assigns proxy contact hours based on the time that a participant is connected to or engaged in an online or stand-alone software program that tracks time.
Clock time model curricula electronically track the time the participant spends interacting with instructional material and stops counting idle time after a preset period of inactivity
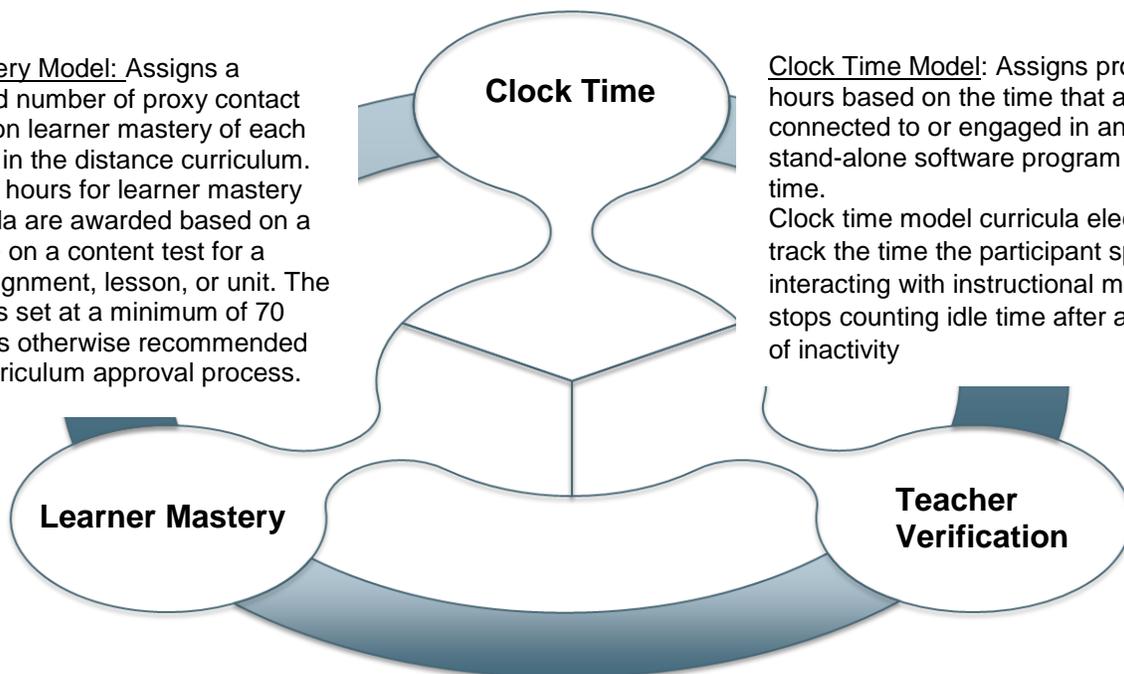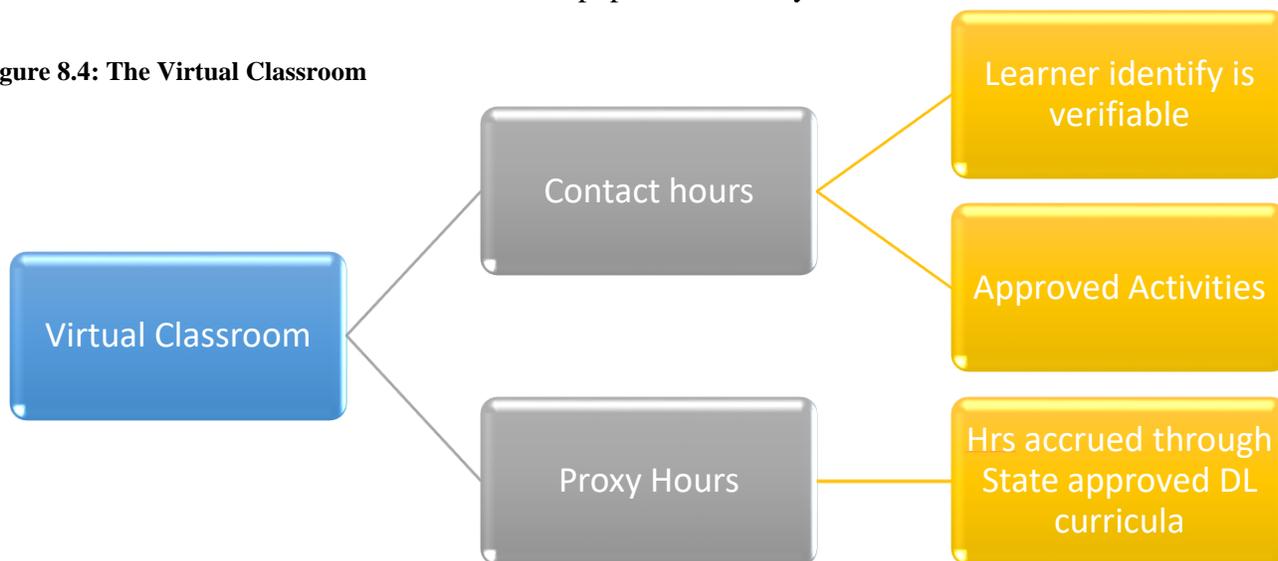
.
Teacher Verification Model: Assigns a predetermined number of proxy contact hours for each activity completed at an acceptable level of quality, as verified by the instructor. Proxy contact hours for teacher verification model curricula are awarded based on the teacher's verification of participant's completion of assignments. Teachers may award full proxy hour credit if the assignment is completed and demonstrates competence in the teacher's professional judgment. Teachers may award half of the full proxy hour credit if the assignment is only partially completed but still demonstrates competence in the teacher's professional judgment. Assignments that do not demonstrate competence must be resubmitted by the participants to be counted for proxy hour credit.

The State distance learning policy outlines approved models and the protocols involved for requesting curricula approval for distance learning in Wyoming. For more information on distance learning, see chapter 5.

Measuring Hours for Virtual Classroom in Wyoming's AE Programs

The hours measured for a virtual classroom can only be of two types: Contact hours or proxy hours and they MUST be delineated so that both tables 4C and 5A populate correctly.

Figure 8.4: The Virtual Classroom

Virtual Classroom

Contact hours
- Learner identify is verifiable
- Approved Activities

Proxy Hours
- Hrs accrued through State approved DL curricula

B. *Leave of Absence*

Whenever a program knows that a student will be absent for a period of 90 days or more BUT will return to study in the same fiscal year a 'Leave of Absence Form' should be completed by the student (and placed in their file). This document serves as 'evidence' for the exclusion from performance.

IV.   The Role of the Core Partners in the AE Classroom

As WIOA implementation took place in Wyoming, DWS, AE and VR began to collaborate more closely by working to:
- Create a seamless, integrated career pathways system
- Identify, develop, and align trainings to local economic needs
- Develop common understanding of core partner responsibilities.
- Identify barriers to employment
- Develop a common intake system
- Expand the services of the One-stop system
- Report on common federal reporting measures (and sanctions) between the core partners

Both WIOA and the Wyoming Unified State Plan outline the requirements for implementing this federal legislation in the State. One of these requirements is that Adult Education providers work with DWS and DVR to co-enroll participants so that the needs of each individual can be effectively met. Doing this also takes the burden of providing services off of a single entity. By working with DWS, qualified participants become eligible for funding under the Wagner Peyser Act, Youth Services, Veteran's Services and more.

It is because of this requirement that many local programs have very effective partner programs with DWS and DVR who often play a role in the delivery of Adult Education Career Services course.

### A. *Seamless Integration into a Career Pathways System*

The State office for Adult Education and the State offices for the Wyoming Dept. of Workforce services actively support training and placement into in-demand jobs along the career pathways system. All core partners, the colleges, and other training providers play a crucial role in this system. As a participant enters an Adult Education program in Wyoming, local providers initially help the participant identify a career track. This is followed by referrals to DWS who can then 1) pay for any necessary training and 2) facilitate job trainings and other work experience programs.

B. *Align Trainings to Local Economic Needs*

Part of each AE provider's Career Service course is to inform enrolled participants of what the local employment outlook is for any given career. Quite often this is facilitated by the DWS partner. The purpose of the dissemination of this type of information is so that participants understand the local job outlook and to encourage training in areas of high demand.

C. *Common Understanding of Core Partner Responsibilities: Cross Trainings*

One of the challenges Adult Education centers in Wyoming have traditionally had is that providers were not made fully aware of the type of services offered by DWS, the requirements needed to qualify for services, and the necessary paperwork. The SEA for Adult Education and the director for the One-Stop System in Wyoming have developed a 'Meet and Greet' program whereby local AE directors and workforce center managers meet once a quarter to talk about successes, challenges, and to educate one another about the types of services offered.
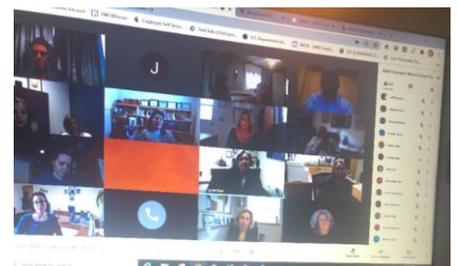
D. *Identifying Barriers*

All core partners are required to report on the 'Barriers to Employment'. Because of this federal mandate, local AE programs must effectively train all staff members on the meanings associated with each type of barrier.

E. *Developing a Common Intake for the WIOA Core Partners*

This has been a great challenge for Wyoming as each of the core partners has their own very effective system for enrolling, tracking, and reporting on participants. However, with the launch of AE's online registration form through LACES, all core partners will have access on their own websites to this registration process.

F. *Expanding the Wyoming One-Stop System*

Presently there are a number of locations where DWS regularly holds office hours at AE locations so that co-enrollments can be facilitated., WY at Work registrations can be completed, and to hold regular meetings with students who may be interested in pursuing work experience programs and/or may need help in finding employment.

Referrals play an important role in encouraging co-enrollments. All WIOA core partners are working towards establishing an effective referrals system. For Adult Education, referrals may be done throughout the entire time a participant is enrolled in Adult Education. These are tracked in LACES with hard copies of the referral being maintained in the local student file.

In 2021, DWS began a large scale expansion and standardization of their grant funded programs for 'Youth'. This expansion saw the release of multiple RFP's throughout the State. It is the intent that these types of grant funded programs will be offered in conjunction with Adult Education and will eventually be available in all parts of the State

G. *Common Reporting & Common Sanctions for the WIOA Core Partners*

All WIOA core partners have a common reporting system that is ultimately submitted to Congress to show enrollments, employment, and the overall economic status of a State. These common measures are outlined in the federal legislation and include the measurable skill gains found on table 4 and the outcome measures found on table 5.

Sanctions

Federal legislation also outlines two specific times in which federal funds can be withheld from a State. These are known as Sanctions and are outlined in OCTAE Program Memorandum 20-2.

State Failure to
Meet Targets
within 90%

Failure to
Report

V.   Adults & Learning Disabilities

Rights & Responsibilities of Learners with Disabilities

➢ Have the **right** to participate in educational programs without discrimination
➢ Have the **right** to reasonable accommodations in courses and examinations
➢ Have the **responsibility** to identify themselves as having a disability and request specific accommodations in a timely fashion.
➢ Have the **responsibility** to provide documentation concerning their disabilities and the need for accommodations

(National Adult Literacy & Learning Disabilities Center)

A. *Learning Disabilities (LD)*

Definitions for "Learning Disabilities" are influenced by the group creating it. This one is from was adopted by the national Joint Committee on Learning Disabilities from the Learning Disabilities Association of America.

"Learning disabilities is a general term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning, or mathematical abilities. These disorders are intrinsic to the individual, presumed to be due to central nervous system dysfunction, and may occur across the life span. Problems in self-regulatory behaviors, social perception, and social interaction may exist with learning disabilities but do not by themselves constitute a learning disability. Although learning disabilities may occur concomitantly with other handicapping conditions (for example, sensory impairment, mental retardation, serious emotional disturbance), or with extrinsic influences (such as cultural differences, insufficient or inappropriate instruction), they are not the result of those conditions or influences."

Behavioral Characteristics of LD Students

Learning is a complex process. A learning disability can occur at any or several of the steps. If what you are seeing or hearing is confusing or distorted, and you cannot trust your brain to understand or store the information you need and then be able to express it, then it's little wonder that you might begin to doubt yourself, or become frustrated! Many of the behavioral characteristics exhibited by learning disabled students that interfere with their ability to learn are the result of the confusion and insecurity they feel because of their difficulties.

Some of these behavior characteristics are shown below.

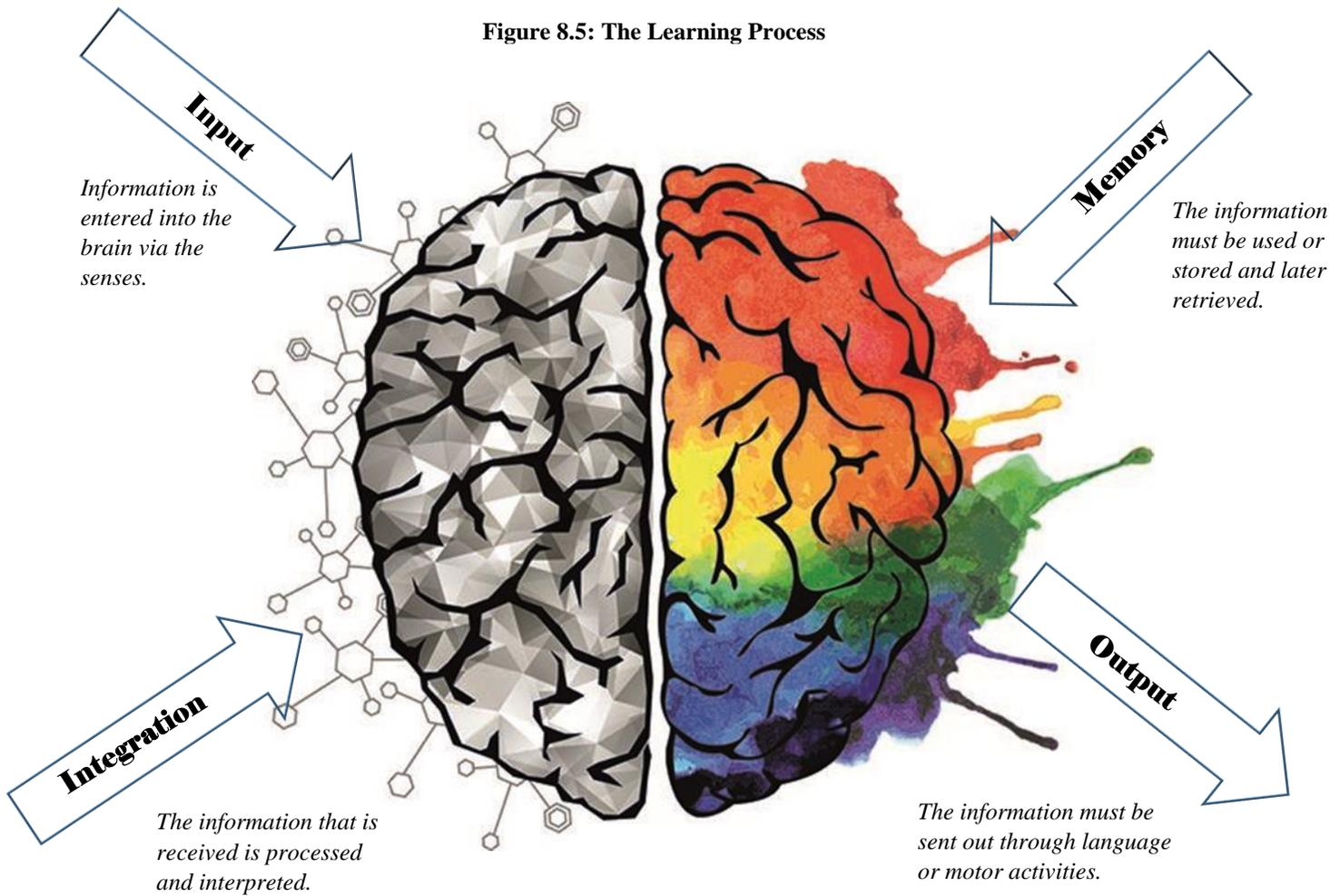| Inflexability	Perseveraton	Impulsivity	Inattention or Short Attention Span	Distractability	Social Misperception	Hyperactivity
overly excited by changes in routine	inability to shift easily form one activity to another	difficulty controlling impulses; responds quickly without evaluating alternative solutions	the inability to focus on one activity fo reasonable lengths of time	attention is disturbed by noise, movement, visual stimuli, or one's thoughts	immature or inappropriate responses in social encounters	unusually high rate of purposeless motor activity

Ways to help students with behavioral disabilities:

1. Help the student develop confidence. Ensure success by focusing on the student's strengths rather than weaknesses. Praise good behavior, and try to overlook the bad.
2. Provide lots of opportunities for success when the student is performing before his peers.
3. Include the student in all activities and projects. Modify when needed.
4. Try to provide immediate reinforcement and feedback for small accomplishments.
5. Be consistent with directions, rules, discipline, and organization.
6. Provide the student with a schedule of the class routine and prepare him ahead of time for changes.
7. Dispense encouragement and praise freely but fairly – help students correct errors and then reward them.
8. Discover the student's strengths and areas of special interests and capitalize on them.
9. Include students in all discussions about them and allow them to give input and be part of the decision-making process.
10. Use a timer to the student structure his/her time.
11. Position the student where there is a minimum of distraction.
12. Help the student organize his/her work area so that it is not distracting.
13. Keep the student actively involved to keep his/her attention.
14. Setting limits for the student. Tell him/her specifically what you want.
15. Use computers help keep the student's attention.
16. Keep directions clear and simple, and make sure to have the student's attention and eye contact.
17. Encourage the student to verbalize any problems or frustration he/she is having.
18. Help him/her develop the survival skills needed in college and/or the workplace.

A student with LD learns differently and must learn coping strategies. These strategies will help a student compensate for their methods of learning. Since they see, feel or perceive the world differently, the student may often feel left out, misunderstood, or rejected. The student may appear to be frustrated, depressed and emotional, or even angry at themselves and their perceived weaknesses.

WHAT IS IT LIKE TO HAVE A LEARNING DISABILITY?
Pamella Bellermann
Learning Disability Specialist
Chairman, Maniet Bellerman Foundation, Inc.

Imagine how confusing it would be if everything you read looked like this:

IMAGINEHOWCONFUSINGITWOULDBEIFEVERYTHINGYOU READLOOKSLIKETHIS?

Or if the words begin and end in places that don't make sense to you:

ORI FTH EWOR DSBE GINA NDEN DI NPLAC ESTH ATD ON'TM AKE S ENSET OY OU?

What if the letters were reversed or out of order?

TAHW FI EHT SRETTEL EREW DESREVER OR OUT FO ODRER?

Now imagine being called on to read aloud the following:

```
w o     e      o         ou        pa
   ds    m      e ap       n  he    g
  r   se    t  l      ar    d  t       e.
```

What if on top of that, people called you lazy, dumb or retarded and you know you're not? These are just a few of the difficulties students with learning disabilities experience every day. These problems make learning difficult, but not impossible! It is important to remember that students with learning disabilities are more like their peers than unlike them. What is different is how they learn. Too often students with learning disabilities are accused of not trying hard enough or not paying attention when, in reality, they are doing the very best they can.

Students with learning disabilities have average or above average intelligence and many are gifted as well. That is difficult to understand. Too often we equate reading and writing ability with intelligence. Students with learning disabilities can have deficits in one or more areas, but might excel in others. No assumptions can be made about a student with learning disabilities. It is important to focus on their strengths and not their disability. Students with learning disabilities have the same basic needs that all people have – acceptance, friendships, feeling worthwhile, and success. The need for success is perhaps greater for students with learning disabilities because they most likely have experienced a great deal of failure in the past.

The first thing in helping the student with LD is to understand what a learning disability is and how it relates to the learning process. Four steps are required for learning to take place:

Figure 8.5: The Learning Process

Input

Information is entered into the brain via the senses.

Memory

The information must be used or stored and later retrieved.

Integration

The information that is received is processed and interpreted.

Output

The information must be sent out through language or motor activities.

A learning disability is a "short-circuit" or dysfunction in one or several of the channels to the brain. A dysfunction in any step can interfere with subsequent steps in the learning process and can result in a discrepancy between the student's potential ability and his or her academic performance. Any learning task involves more than one process and any learning disability can involve more than one area of dysfunction. For example: a student's visual-perceptual disabilities are likely to result in fine/motor and writing difficulties, as well as difficulties with social perceptions.

B. *Disabilities at the Input Stage*

During the INPUT stage, a learning disability exists when information from the environment is "misperceived." These misperceptions do not pertain to visual or auditory acuity. Thus, a student with perfect vision or hearing may still have a "visual or auditory perceptual disability." It is not what you see, but how you perceive it.

Perceptual disabilities often leave the student confused, anxious and/or frustrated. Self-doubts set in when one cannot trust one's perceptions. The student whose perceptions are inaccurate, inconsistent, and misleading lives in an unstable and unpredictable world. A tremendous amount of conscious effort is required to override distorted visual and auditory information. And it takes a great deal of persistence and intelligence to overcome them.

Visual Perceptual Disabilities

A student with a *Visual Perceptual Disability* has difficulty organizing the position and shape of what is seen. The student may:

> ➢ reverse or rotate letters, numbers, words and even sentences when he/she is reading, copying or writing (E is seen as 3; w as m; "dog" as "god"; "+" sign as a times sign)

➢ have difficulty with figure-ground (focusing on a significant figure instead of the rest of the background), causing him/her to be unable to track left to right, line to line, or to skip words, read the same line twice, see two words as one, one word as two, or skip lines. When doing a math sheet, the student might put the answer under the wrong problem or add part of another problem to the one he/she is doing – or add in the number of the problem itself.

➢ misjudge distance, depth, or position in place, bumping into things, falling off his/her chair, or knocking things over when reaching for them. These students are often labeled "clumsy" or uncoordinated when the real problem is one of visual-perception.

Ways to help students with visual perceptual disabilities:

1. Encourage the student to use a bookstand to hold books and papers upright to reduce glare on the page when reading and copying.
2. Give the student extra time to complete visual-perceptual activities. They need time to figure out and understand what they are seeing.
3. Seat the student in the front row near the center of the board.
4. When writing on the board, help the student keep place by writing each line in a different color.
5. Avoid tasks involving copying from the chalkboard or from books.
6. When the class is taking notes from the board or during class, have a classmate who has neat handwriting put a piece of carbon paper under his/her sheet to make a copy for the student with LD or give a copy of your notes to him/her. If homework assignments are written on the blackboard for the class to copy, check to make sure that the student with the LD has copied them accurately. Read aloud what you have written.
7. Reduce home/class work requirements by allowing the student to do only the even or odd problems rather than the whole page.
8. Allow the student to tape record class lectures.
9. Photocopy pages of non-consumable books so the student doesn't have to copy writing or math problems.
10. Use large print books and workbooks or enlarge on a copier.
11. Teach the student to highlight important information in books.
12. Allow the student to use a note card, ruler, or finger under lines of print when reading or copying. Use a note card to block out the rest of the page.
13. On worksheets, put a heavy line around the pertinent items to help the student attend to reversal tendencies.
14. For new words, use color cues like green letters at the beginning and red ones at the end.
15. Present reading materials that are clear, legible and on uncrowded pages. Blurred copies are very hard for the student to read.
16. Provide kinesthetic exercises such as writing on the chalkboard, walking exercises, finger-painting, and body in space.

17. Provide tactile experiences such as sandpaper letter, form letters from playdough or pipe cleaners, or outline letters or words with glue, let dry, and then "feel" the letter.
18. Mark the paper to show the student where to start and stop.
19. Mark the student's desk with "left" and "right" markers.
20. These students will remember more of what they HEAR than what they see. Present new material and give directions orally.
21. Mouthing the words or quietly whispering will make a visual task an auditory one as well.
22. When the student is writing something new, encourage him/her to verbalize what is being written.
23. Use tape recorder, language master and record player activities for the student with poor reading skills.

Auditory Perceptual Disabilities

Auditory perceptual disabilities are those where a student has:
➤ difficulty distinguishing the subtle differences in sounds, confusing words that sound alike. The student might answer your question about how he or she is by giving you his/her age.
➤ trouble picking out sounds from the rest of the background (auditory figure background). Understanding and following directions, particularly those with several steps, is a strenuous task for children with auditory perceptual difficulties. It is often thought that they are not paying attention or listening – actually, they are paying attention to too much!
➤ trouble being able to process information as fast as most people can (auditory lag). They might ask you to repeat questions or directions over and over again. They might stall for more time to think about and respond to what they are being asked, or they might be hearing only part of what is said.

Ways to help students with auditory perceptual disabilities:

1. Give them extra time to think about a problem or answer a question before requiring a verbal response from them.
2. SHOW them how to do something rather than just telling them.
3. If visual skills are strong, use sight word, "look or say," and similar techniques to teach reading. Approaches that rely entirely on phonics are confusing.
4. Do not give directions while the student is in the midst of performing a task. Wait until you have his/her full attention.
5. Have the student repeat directions given orally AND have him/her demonstrate that he/she knows what to do. He/she might not have understood or might have misinterpreted.
6. Provide lots of visual reinforcements (pictures, maps, charts, graphs). They help keep the student's attention.
7. When teaching a new concept, illustrate the concept when giving a verbal explanation.
8. When a student seems confused, have him/her verbalize what he/she misheard or misunderstood.
9. Provide written outlines to follow during oral presentations.
10. Directions need to be visual – written on a board or on paper.
11. When giving homework assignments orally, check to make sure the student has written them correctly. It is helpful to write them on the board for the students to copy as well as hear.

Students with a perceptual disability can also misperceive social cues and body language. They might misinterpret gestures, facial expressions, and tone of voice or they might not notice them at all. These are the students who go too far and don't know when to stop at home and in the classroom because they do not pick up that someone is annoyed or frustrated with them.

Social Perceptual Disabilities

 Students with *social perceptual disabilities* are often shunned by their peers because of their inappropriate behavior. They have trouble making and keeping friends, although they desperately want and need others to like and accept them. Without friends, the student feels isolated and many times withdraws from social situations. Social perceptual disabilities are the most devastating type of learning disability a person can have.

Ways to help students with social perceptual disabilities:

1. Rather than assume the student will just "pick up" appropriate social behaviors, teach them to the student.
2. Demonstrate rather than just talk about appropriate ways to act.
3. Role-play different social situations in which the student might find him/herself and discuss possible consequences.
4. Teach students to recognize facial expressions, body language and moods.
5. Teach students "teacher pleasing behavior."
6. Analyze the source of social problems by observing the student in various situations to see where he/she is having difficulty and why.
7. Find an activity that promotes social confidence, such as drama, reading to younger children, or having the student teach a skill he/she excels in.

C. Disabilities at the Integration Stage

The next step in the learning process is to put together or process the information that has come in through the senses, i.e., INTEGRATION. The information that has been taken in has to be understood before it can be remembered and be useful to the student. There are at least three parts to this step.
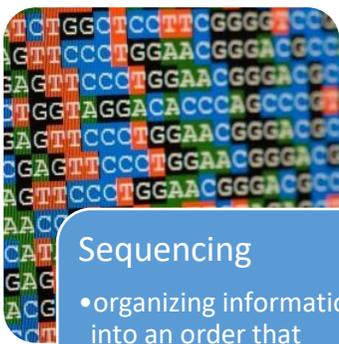
Sequencing
•organizing information into an order that makes sense

Abstracting
•inferring meaning from the words or symbols

Organization
•information must be integrated with new incoming information and it must also be related to previously learned inforamtion

Those students with a *sequencing disability* might have trouble retelling a story in order or might spell words with all the correct letters but in the wrong order. They may be able to memorize the days of the week or numbers in correct order but be unable to tell you what comes after Tuesday or 19, without starting from the beginning. They also have a poor concept of time.

When students are unable to understand jokes and humor based on a play of words, they are exhibiting an *abstraction disability.* In some ways, they are thought so be somewhat narrow minded with their understanding of words, particularly those with more than one meaning, as well as concepts.

Many students with learning disabilities have *organizational disabilities*. These students are able to take information, such as a series of facts, but are unable to answer questions using the facts. They are unable to pull all the newly learned information and previous information together into a whole concept. The signs of an organizational disability are clearly evident when one observes the student. His/her desk, notebook, reports, bedroom, etc., are in disarray. These students leave their homework at home, or work needed at home at school. Time management is a major issue with these students.

Ways to help students with integration disabilities:

1. Help the student organize his work area, providing a "place for everything."
2. Provide the student with an assignment book/folder and calendar to keep track of work.
3. Have peers check with each other to see that all assignments are recorded.
4. At the end of the class, have the student check to make sure he/she has everything needed for homework. Make sure the student understands what to do on homework assignments. Have him/her demonstrate what to do.
5. Teach the student to be responsible for keeping his notebook/folder organized, assignments recorded, and homework turned in by graphing, charting, or rewarding when he/she is successful.
6. A binder with dividers and pockets for each class/subject will help keep the student organized. Keep loose sheets in the pockets. • Provide the student with a paper punch and teach the student to punch holes in loose sheets immediately and put them in the proper place in his/her notebook.
7. Help the student get started doing tasks when giving an independent assignment. Teach him/her time management.
8. When assigning long-term independent tasks such as book reports or term papers, provide a sequential list of tasks for the student to follow. Help the student outline the steps needed to complete the task.
9. Check periodically on the status of long-term assignments to see if the student is following the plan.
10. Keep an extra folder of handouts so a student can easily replace lost ones.
11. Daily schedules at home and school (work) for the student are useful.
12. Use concrete and manipulative materials to demonstrate concepts. Allow the student to use fingers and other aids that are useful.
13. Keep him/her focused on tasks by actively involving the student.
14. Explain words and phrases that have multiple or subtle meanings, such as idioms.
15. Be sure that presentations are organized in sequential order.
16. Give instructions in small segments and reward the student for each completed step. Gradually increase the length and complexity.
17. Use hands-on activities.
18. Speak clearly, distinctly, and try to keep the vocabulary simple.
19. Try to keep eye contact with the student.
20. If students have trouble understanding information, show them how to draw pictures or diagrams to help them visualize it. This also gives the information order.
21. Teach the students strategies to organize information according to relationships.
22. In problem-solving situations, teach the student to talk through steps. It will help him/her think clearly.
23. A confused student often doesn't know what part of a task is confusing. Help the student learn how to determine those parts and be able to be specific when asking for help. It may be just one word that is confusing and not the whole task.
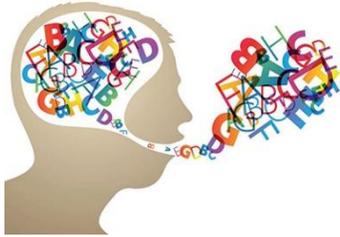
D. *Disabilities at the Memory Stage*

The next step in the learning process is to take the information that has been received and integrated and store it for later use. This is called memory and there are two types.

Short-term (ST) Memory

- defined as anywhere from a few minutes to 24 hours & involves retaining information for a short time while attending and concentrating on it.
- Students with a ST memory disability may need 10-15 repetitions to retain what the average student retains after just a few repetitions.

Long-term (LT) Memory

- can be anywhere from a few minutes to over 24 hours.
- LT memory is generally not difficult for learning disabled students. Usually, if they have learned something they can retain it. Most likely the memory disability is a short one.

Short-term memory disabilities can occur with information received both visually and/or orally (relating to the ear). A student may understand his/her assignments until it is time to do them at home. Then he/she can't remember how to do them. These students also practice and practice for a test at home and get everything right, only to flunk the test the next day. Students with memory problems are often frustrated and tempted to give up.

Ways to help students with memory disabilities:

1. You may need to repeat directions, step by step, and then have the student repeat them and demonstrate he/she knows what to do.
2. Do not give directions while the student is doing something else. Wait until you have the student's full attention.
3. Review materials previously learned as often as possible until responses become automatic. If classes are recorded, the student can listen to them several times.
4. The student will need to "over learn" material to remember it. Provide many opportunities for practice.
5. Don't assume a student will know tomorrow what he/she knows today. Inconsistency is a trait of students with memory problems.
6. Don't assume because a student has trouble learning something today that he/she will be unable to learn it tomorrow.
7. Teach the student memory strategies, like mnemonics or acronyms, to remember information.
8. Teach the student how to use visualization and imaging techniques to recall information.
9. Provide charts showing math facts or a calculator which the student can use when teaching a new math process to avoid interfering with new learning.
10. Teach the student how to make notes and lists to help remember information.
11. Avoid rote memory instruction in any content area.

E. Disabilities at the Output Stage

This final step in the learning process is the proof that we have learned something: output. It involves being able to express in some way what has been learned, information is expressed either through language – by means of words – or through writing, drawing, gesturing – motor output.

Language Disabilities

There are three forms of language output:

1. *Spontaneous*: One initiates whatever is said and has the opportunity to select the subject, organizes one's thoughts, and choose the correct words before saying them.
2. *Demand*: The student is asked to respond to a question or is required to communicate. It is necessary to simultaneously organize, find the right words, and answer appropriately in a brief amount of time.
3. *Social*: Social language skills are needed when carrying on a conversation with peers and others, when asking for help, or getting needs met.

Language is perhaps the most complex and difficult of all learning tasks. Most people with learning disabilities have problems with "demand language." These are the people who can talk, with a great deal of intelligence and expression, about a wide range of topics and then freeze when asked a question. People with "demand language" disability will often mumble, ask you to repeat questions to gain time, or not answer at all. If forced to answer, the response may be so confusing and jumbled that you are not able to understand it.

Ways to help students with language disabilities:

1. Role-play situations which involve social conversation and demand language.
2. Give the person extra time to respond to questions, particularly during tests.
3. Increase the person's self-confidence by calling on him/her when you know he/she knows an answer. Ask non-threatening questions which require only a short answer or opinion.
4. Have the person repeat questions to himself/herself before responding.
5. Seat the student at the front of the room to reduce embarrassment when he/she speaks.
6. Prepare the student by saying his/her name before answering questions.
7. If the student stammers or pauses, assist him/her with clues.
8. Reduce anxiety by providing opportunities for small group discussion and participation.
9. Give the student time to rehearse oral presentations.

Motor Disabilities

Motor disabilities involve coordination of the large muscles (gross motor) and small muscles (fine motor). Students with gross motor difficulties may appear to be clumsy. They fall, bump into things, and have trouble with athletic activities.

Usually more complex (and more frustrating) are fine motor disabilities. These show up when the student begins to write and has to get the muscles in the dominant hand to work together in a cooperative and coordinated way. Students with a written language disability have slow and poor handwriting. The writing task requires a tremendous amount of energy and stamina. These are the students with the awkward pencil grip and white knuckles.

Quite often the student with visual-perceptual problems has motor as well – referred to as a *Visual Motor Disability*. If the brain receives information that has been misperceived visually, then incorrectly processes and records it, it may misinform the muscles that require eye-hand coordination.

Written language tasks are made even more difficult because they require using correct grammar, punctuation, spelling, and vocabulary all at the same time. Learning disabled students who can tell creative, involved, and detailed stories are often unable to get any of their thoughts onto paper. The words are in the wrong order, usually are misspelled, or completely omitted or unintelligible. They can usually only manage to write a few words or sentences. Writing definitely stifles these creative students. Free them of the burden of writing by allowing them to dictate, tape record or use a word processor to get their thoughts down on paper. They'll be forever grateful.

Ways to help students with fine motor and writing difficulties:

1. Avoid assigning long copying or written assignments. Allow the student to dictate longer reports to someone else who can write for him/her or tape record them.
2. Use manipulative activities to increase fine motor control.
3. Chalk/white board practice should precede paper and pencil writing.
4. Experiment with different writing tools to find the one that makes writing easier for the student.
5. Pencil grips are helpful for many students.
6. Proper posture is important for good writing. Make sure the height of the student's chair and table are appropriate for him/her.
7. A piece of tape can be placed on the desk to help position paper for cursive writing.
8. Try cursive writing if the student has trouble printing.
9. If printing is preferred, teach the methods that do not require the student to lift his/her pencil off the paper while forming the letters.
10. Avoid the use of paper with faint lines. White paper with dark blue or black lines is the best. Paper with raised lines might also be helpful.
11. Have the student write on every other line. It's easier for him/her to read and make corrections.
12. Be aware that students sometimes write illegibly purposely because they cannot spell words.
13. Students who use capital letters in the middle of a word often can't remember what direction the lowercase letters go (i.e., r, n, p, b, d). It's usually easier to remember how to make capital letters.
14. Sometimes it's easier for the student to write on paper with narrower lines rather than wide-lined paper.
15. Crossword puzzles will develop language and spelling skills as well as provide an opportunity to practice writing in small places.
16. Provide letter and number charts to help students remember how to form symbols when writing.
17. Allow the student to trace if he/she has trouble drawing.
18. Provide well-spaced and uncluttered worksheets.
19. Have students orally describe their movements when forming letters that give them difficulty.
20. Teach the student to use a word processor or typewriter. The computer is a blessing for revisions and a lot of writing.
21. Disregard misspellings when grading unless it is a spelling task.
22. Provide spelling aids for students to use.
23. Encourage students to keep a file of frequently misspelled words for reference when writing.
24. Underline all misspelled words and give the student a chance to correct them before grading.
25. Encourage students to proofread written work by reading it aloud. They often pick up on their own mistakes.
26. Provide a checklist to use with written assignments, reminding the student to use punctuation, capital letters, and check spelling.
27. Accept correct answers on tests or worksheets in any written form, such as lists or phrases.

28. Provide an opportunity for the student to take oral tests or quizzes, or provide a reader for the student. Allow the student to dictate answers to a writer.
29. For math work, have the student use graph paper to work problems or turn lines paper to the side.
30. Remind the student that math problems are worked right to left, unlike reading, which is left to right.

F. *Effective Instruction for Adults with LD*
EFFECTIVE INSTRUCTIONS FOR ADULTS WITH LEARNING DISABILITIES
(Used with permission of)
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The focus of this monograph is teaching, that is, what you can do to help adults, especially those with learning disabilities (LD), learn important literacy skills. A number, not all, of the principles of effective instruction used with persons with learning disabilities are presented here. These principles can be applied across a wide range of literacy skills including reading, writing, spelling, math, studying for tests, and completing job applications, as well as to more global cognitive skills such as problem-solving.

Principle 1: Teach Important Skills

What is an important skill? Who decides that a skill is important? Sometimes adults may come to class wanting to learn specific things for specific reasons. For example, a person may request that instruction focus on understanding written material related to a specific job. In such cases, students themselves should have a strong voice regarding what skills should be taught. On other occasions, students may come to class with less specific requests, such as "I want to be a better reader or writer." In this situation, the instructor has more responsibility for deciding the focus of intervention, i.e., which skills to teach. This decision may be difficult because many skills can be taught within any academic area.

Deciding which skills are critical to teach is important because of time factors. While a student in public school may have up to 10 hours a week of reading instruction, this is often not the case in adult literacy programs, where as little as one hour per week may be all that is available. Also, adults with learning disabilities often learn at a slower rate, making time an even more precious commodity. Because of the time factor, only those skills that have the most functional impact across many areas of the adult's life should be taught.

Principle 2: Teach Less Better

This principle is related to Principle 1 in that it also involves effective use of time and decisions regarding what to teach. Because there is so much to teach and so little time in which to do it, the instructor may be tempted to try to teach as many skills as possible. Frequently, what happens in this situation is that no skill is learned well. Instead, it is better to teach fewer (and, of course, important) skills but to teach them so that each one is mastered completely. Individuals with LD often need direct, explicit, and intensive instruction along with numerous practice attempts over time in order to truly master a skill or retain information to an automatic level (Deshler & Schumaker,

1988; Englert, 1983; Gersten, Woodward, & Darch, 1986; Tarver, 1996). Thus, time is better spent providing sound instruction on a few vital skills than providing cursory, limited instruction on a broad range of skills.

Principle 3: Teach Explicitly

There are various philosophies regarding how best to teach literacy skills. For example, some educators suggest that students be allowed to "discover" or "create" their own knowledge while teachers use indirect methods, functioning solely as a guide or facilitator (Poplin, Wiest, & Thorsson, 1996). Although this may work with motivated learners who have previously mastered basic literacy skills, or with those who learn incidentally or observationally, this approach does not work well with students with LD. Research has demonstrated that individuals with LD acquire literacy skills more efficiently (better and faster) when the teacher takes an active, direct, and explicit approach to teaching basic literacy skills (Bulgren & Lenz, 1996; Pressley & Rankin, 1994; Stahl & Miller, 1989). As noted earlier, when instruction is being designed, it is desirable for adult learners to have a "voice" in what they learn as well as to give their perspective on how they best learn. However, selecting important skills and teaching them explicitly generally is the most effective and efficient approach. Again, given the constraints in instructional time, explicit instruction is the method of choice (for specifics about how to teach explicitly, see Principles 5 through 13).

Principle 4: Teach Contextually

Providing a context for learning and for practicing literacy skills makes the skills more meaningful and useful and allows learners to see how the skills can be applied to "real life." When teaching basic skills such as decoding, vocabulary, writing simple sentences, spelling conventions, and so on, it is important to teach the skills in some context rather than in isolations. For example, learning specific phonics skills or rules is important for beginning or emergent readers, but students should be allowed to practice these skills in actual connected text (e.g., stories, literature) versus practicing them only in isolation (e.g., word lists). Or if writing conventions (e.g., punctuation, grammar) are being taught, students should practice them in the context of their own writing, such as personal notes to friends or business letters, as opposed to completing, for example, worksheets in which they add correct punctuation to already provided sentences (Adams, 1990; Ellis, 1996).

Principle 5: Explain What is to Be Learned & Why It Is Important

It is useful to start a lesson or an instructional session with a statement of what is to be learned that day, the relevance of the skill, and where and when it can be used. A statement of the learning goal provides learners a clear understanding of what is expected and prompts them to think about prior knowledge and experiences related to the content being taught that day. It is particularly important for adults with learning difficulties to have a clear idea of the purpose of instruction from the very beginning (Lenz, Alley, & Schumaker, 1987; Roehler & Duffy, 1984).

The explanation of what is to be learned should be brief and to the point, the shorter the better. For example, the instructor might say something like, "Today you are going to begin learning about how to proofread your writing, that is, things you can do to make your writing more clear and error-free." Once learners know what they are going to learn, the instructor should discuss why it is important and under what conditions they can use the skill/information. It is important to involve adults in this discussion. To do so, questions can be posed, such as, "Can you tell me why it is important to be able to go over written work for the purpose of reducing errors?"

Also, the instructor should ask questions related to the circumstances under which the knowledge or skill can be used (e.g." When could you use proofreading?"). Statements and questions about what is to be learned and its relevance will "set the stage" for actual instruction. As a final note, if it is difficult to generate meaningful relevance statements and/or examples of where a given skill can be used, the instructor may wish to reconsider the importance of teaching that skill. If no one can generate a compelling rationale for learning a skill, it may be prudent to identify a more relevant skill.

Principle 6: Check the Old Before Teaching the New

Individuals with LD often have problems retaining information. Therefore, it is a good idea to provide a check of prerequisite skills prior to beginning instruction on a new skill. Verifying retention of previously learned skills related to the new skill being taught is important. For example, when beginning a session on how to identify main ideas in a textbook, the instructor may wish to check that the students remember pertinent vocabulary such as "topic sentence" or "main idea." To verify whether students remember or can still perform a prerequisite skill, the instructor simply asks them to demonstrate (e.g., ask them to respond to the questions, "What is a 'topic sentence' and how do you identify it?"). Teachers often begin a review by reteaching or lecturing about previously covered material without checking whether students have retained the information. This is an inefficient use of time. Re-teaching should occur only if students cannot perform the prerequisite or related skill; otherwise, re-teaching is unnecessary. Instructors should remember to ask questions that require students to demonstrate competence in the skill. Questions that can be answered with a "yes" or "no" (e.g., "We have been covering the first three steps of the reading comprehension strategy; does everybody remember what they are?") will indicate little about whether information is understood or mastered. The only way to verify if something is known and remembered is to request that learners perform the skill and then check whether they do it correctly (e.g., "Tell me what the first three steps of the reading strategy are," or "Use the first three steps of the reading strategy on this passage.").

Principle #7: Model What is to Be Learned

Modeling the skill to be learned is crucial for adults with LD (Englert, 1984; Rivera & Smith, 1988; Smith & Lovitt, 1975). Too often, teachers describe the new skill only once or twice and then require independent practice. This may be sufficient for some learners (e.g., bright students who know a lot about the topic to begin with) but is not sufficient for most. Modeling is made up of two teacher behaviors: physically performing the skill, and verbally describing both what is being done and the covert thinking and decision-making that occur when the skill is being performed. For example, when teaching an error-monitoring strategy, the instructor would actually perform the procedure on a sample of written work (on the board or a transparency) while explaining what he/she is doing and why (versus just talking/lecturing). When modeling the first couple of times (a skill/procedure should always be modeled at least twice), the instructor should perform and talk about the skill/procedure slowly and in an exaggerated fashion.

After modeling the skill one or two times, the instructor should involve adults in modeling the activity/skill. This is done for two reasons: first it gets them involved in the learning process by requiring them to make some sort of response rather than just sitting there; and second, it provides the instructor with valuable information about how well they have understood the information being presented/ demonstrated. For example, after modeling several steps of an error-monitoring strategy, the instructor can involve students in the model via questioning techniques. The instructor may say, "You have watched and listened to me while I have demonstrated the first several steps or the error-monitoring strategy. Now I want you to help me go through it. What should I do first? Why should I do this first? When I perform the second step, what should I do?" And so on. Having them "help" perform the strategy will solidify their understanding of the strategy as well as inform the teacher about the level of their understanding. Once it appears that they have begun to acquire and understand the modeled skill, it is time for practice.

Principle #8: Use Promoted Practices

After describing and/or demonstrating new content, teachers often have students practice on their own. This can be a serious instructional mistake. Even if students have demonstrated an emerging understanding through their involvement in the model, it is unlikely that they are ready to practice on their own. If they have partial understanding or their understanding is not "firm," requiring them to practice independently may result in errors. Although the expression, "We learn through our errors," may apply to many people, for students with LD, only one thing is learned when practicing errors: how to do something incorrectly. This is a characteristic of many individuals with LD that once they have practiced something incorrectly, it is extremely difficult for them to relearn it correctly (Deshler & Schumaker, 1988; Deshler, Schumaker & Lenz, 1984; Englert, 1984; Rosenshine & Stevens, 1986). Although some errors will occur, it is crucial to minimize them. One way of minimizing errors while allowing practice is through prompting.

Prompted practice is sometimes referred to as guided practice. The teacher prompts or guides students while they perform the emerging skill. This usually is done via verbal teacher questioning. Going back to the error-monitoring strategy mentioned above, the teacher may say the following, "You really seem to be understanding the strategy steps. Now it's time to begin to practice using them. I am going to guide you while you perform the steps. What will you do first? "Right." Go ahead and perform that step. "Excellent." Now, what do you do next? "That's correct." Go ahead and do it. This type of verbal prompting is similar to involving students in the model. The only difference is that the teacher has substituted the word "you" for "I." This is because, in the model step, the teacher is performing the strategy; in the prompt step, the student is performing it. This type of guided, structured practice provides support for students as they practice new skills. Proceeding step by step, versus telling them to perform the whole strategy and checking later to see how they did, allows the instructor to see if and error is made, thus allowing for immediate and corrective feedback, if necessary.
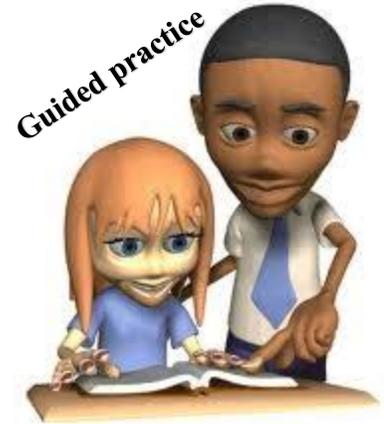
Principle #9: Use Controlled Materials

Another principle that can be used during initial prompted practice to reduce errors is providing "controlled" materials. What is being controlled is the difficulty level of the material or the situation in which the new skill is practiced. To illustrate: when teaching their children to drive, most parents proceed to the nearest empty parking lot rather than the freeway. In this way, they control the difficulty of the situation in which their children are practicing a new skill (driving). Specifically, they are increasing the odds that the initial practice will be successful and that mistakes will not be costly.

This type of controlled prompted practice also is often necessary in academic situations (Deshler, Ellis, & Lenz, 1996; Deshler & Schumaker, 1988). When teaching a reading comprehension strategy and providing initial practice in using the strategy, the teacher probably would not have students use it with difficult reading materials. A better option would be to allow them first to practice their new strategy using easy reading materials so that the difficulty of the material does not interfere with practicing the new skill. Once adults have demonstrated a high rate of success under prompted and controlled situations, the instructor gradually reduces the number of prompts and provides practice with increasingly more difficult materials; when success occurs with minimal prompting (and only then), independent practice can begin.

Principle #10: Provide Practice, Practice, Practice (and More Practice)

The word practice is written above four times to stress that independent practice is critical and that practicing once (or even twice) is insufficient for building proficiency or retention, especially for adults with LD (Englert, 1983; Rosenshine & Stevens, 1986). A too frequent practice is "teach and leave"; that is 7-20 all too often something is taught, practiced a couple of times, and then dropped. The assumption is that, if the student "gets it right" once or twice, he/she will always get it right. Not true! Practice must be both distributed and cumulative. Distributed practice, versus massed practice, which is what is done when "cramming" for an exam in school, occurs when practice is distributed over time. Independent practice should occur over time. Initially, newly acquired skills should be practiced (several times a week). If high rates of success are occurring, practice can be less frequent.

Newly acquired skills can be practiced by themselves (e.g., practicing correct grammar by writing sentences), or they can be practiced via cumulative practice. Cumulative practice occurs when a previously taught skill is practiced with other related skills. For example, correct grammar usage can be practiced with other previously earned sentence-writing or paragraph-writing skills or in the context of an overall error-correction strategy. Providing cumulative practice allows distributed practice as related skills are incorporated.

There are several guidelines for the instructor to keep in mind when developing and implementing independent practice. First, independent practice (e.g., out-of-class assignments) should never be assigned until adults with LD have demonstrated proficiency in the target skill. Second, when designing or selecting the format for practice (e.g., worksheet), the teacher should make sure that it actually requires the student to perform the skill in question. Often independent work tasks do not "match" the skill taught. Third, the teacher should make sure that the directions are clear. It may be a good idea to go over the assignment while still in class to ensure that students understand. Last, the teacher should make sure that a "reasonable" amount of work is required and that it matches the amount of time adults have in their lives for independent work activities.

Practice also helps to generate use of acquired skills (see Principle 13 for a further discussion of generalization). Multiple practice sessions with high rates of correct response lead to fluency (accurate and fast). Fluency means that the skill has become so automatic that an individual uses it with little conscious thought and applies it with ease. Because the skill is easy to use, its continued use is more likely. Skills that are not performed at a fluent level tend to go unused.

Principle #11: Require Frequent Responses

Too often, teaching resembles a monologue: teachers talk and learners listen. This method of instruction promotes passivity in adults with LD, who often are referred to as passive learners. Thus, an integral part of teaching adults with LD is keeping them actively involved in the lesson. One effective way to do this is to require as many responses as possible. Requiring frequent responses not only keeps learners focused on the content they are learning, it also provides the instructor with information about how well they understand what they are learning because he/she is getting continuous information about rates of correct and incorrect responses.

How many responses are enough? It depends. If relatively simple skills such as vowel sounds, initial sounds, etc., are being taught, whereby responses are short and the presentation rate is fast, then it is possible to require 10 to 15 responses per minute (or more). If the skill being presented or practiced is more complex (e.g., learning rule usage, a multi-step strategy), then several responses per minute may be more appropriate. In either case, the principle remains the same: the teacher should require as many responses as possible. One way the teacher can remember this principle is to use the three-statement rule: Never make more than three statements without requiring a student response.

Principle #12: Provide Corrective Feedback

No matter how well the information is presented, mistakes will be made.
When this happens, the instruction needs to provide corrective feedback
immediately. Teachers occasionally feel uncomfortable telling students they
are "wrong." However, efficient and effective instruction requires that they
do so and as soon as possible (Kline, 1989). In the error-correction/feedback
process, the first thing the teacher needs to do is to closely monitor responses.
If the teacher is not aware of an error, he/she cannot correct it.

There are several guidelines or procedures the instructor can follow (and some he/she should avoid) when correcting
errors. First, if the incorrect responses are related to factual knowledge (e.g., saying a vowel sound, pronouncing a word,
math fact), the instructor simply, and in a matter-of-fact manner, states or performs the correct answer/response and then
requires the correct response. If the teacher is working with a small group, the correction can be done as a group. This
may alleviate some embarrassment for whoever made the error because he/she is not being "singled out." Regardless of
how correction is done (group or individual), the individual making the error should always end the error-correction
process by making the correct response. Additionally, it is important for the teacher to go back later in the lesson and
require the correct response/answer from the person who made the incorrect response (again, this can be done with the
whole group). This helps to "firm up" the knowledge as well as to inform the instructor if a problem still exists.

If the error is procedural (rather than factual) in nature, the correction procedure is somewhat different. Procedural
knowledge relates to how well tasks that consist of a series of steps or rule relationships are performed. For example,
spelling rules fall under this category. If the instructor is teaching a spelling rule such as, "When a word ends in a vowel-
consonant-e pattern, drop the "e" before adding an ending that begins with a vowel," and the student misapplies the rule, it
is best for the instructor to use prompting as the error-correction method. Doing so reminds the learner of the rule and
allows the teacher to ascertain where in the procedure the difficulty is occurring. Let's say the word seeing was spelled
"seing" because the spelling rule was applied when it shouldn't have been. Then the teacher could say something like,
"Let's look at this word (see). Tell me what the first part of the spelling rule is. "Right." You check to see if the word ends
with a vowel-consonant-e. Does the word "see" end with a vowel consonant-e? "That's right, it doesn't. So in this case,
would you drop the "e" when you add the ending? That's right, you wouldn't. Go ahead and spell it correctly." In a
procedural correction, just as in the factual correction, the skill always is performed correctly at the end.

A couple of relatively common teacher reactions to incorrect student responses should be avoided, including "going
fishing" and "you're getting warmer." "Going fishing" occurs in group instruction. In this situation, an individual makes
an error, and the teacher goes fishing for the right answer from others in the group (e.g., "No that's not it. Fred do you
know the answer? No? How about you Ellen?" and so on.) Going fishing is a waste of instructional time and does not
require the student making the error to make the correct response. It also is embarrassing for students. But most
importantly, it does not provide students an opportunity to practice the skill correctly. "Getting warmer" goes something
like, "No, but you're really close. Try again." "No, but that was closer; try again," and so on. Again, this approach wastes
time, promotes guessing and often results in practicing errors. Because making mistakes can cause discomfort for all
involved, there are several things the instructor can do to make instructional sessions "safe places" for making errors.
First, when teaching in groups, the instructor should make corrections with the group instead of with the individual (the
other can use the practice, too). Second, the instructor should make corrections in a neutral, non-threatening manner.
Third, he/she should communicate that errors are part of learning. For example, when the instructor makes a mistake,
he/she should admit it freely without being defensive.

Principle #13: Promote Generalization

A frequently noted aspect of a learning disability is difficulty in generalizing learned skills and strategies to other settings
and to other similar tasks (Ellis, Lenz, & Sabornie, 1987a, 1987b). Unfortunately, if teachers are not aware of this
characteristic, they may do what is known as "teach and hope"; that is, they teach a skill or strategy and then hope it will
be used correctly in other contexts (i.e., with other persons, settings, and tasks). In this case, hoping usually is not enough.
What is needed are specific activities for promoting generalization.

Generalization should be part of the instructional process from the beginning. It begins by having discussions early on
about why the skill is important and where it can be used (see Principle 5). When a student has acquired a skill (i.e., can

accurately perform the skill independently in the teacher's presence), additional procedures are used to ensure that the skill will be used appropriately in other contexts. First, the teacher should provide more discussion about the necessity of applying the newly acquired skill/knowledge beyond the context in which it was taught. This discussion centers on rationales for using the skill across settings, identifying settings and tasks that will likely require the skill, how learners will remind themselves to use the knowledge, and what kinds of cues exist that signal its use.

Discussions about generalization serve the important purpose of orienting students to the necessity of generalizing what they learn, but these discussions should be viewed as only a first step. Other specific activities are needed to promote generalization, including use of newly acquired skills outside of the tutoring situation (e.g., at home, on the job) and then a later discussion about how these skills were implemented and whether they were useful. Also, when appropriate, the teacher should suggest practicing new skills with a variety of materials. For example, if the skill in question is a reading comprehension strategy, the instructor should provide opportunities to apply the strategy when reading newspapers, magazines, fiction, etc. Too often, adults with LD do not readily see that a skill or strategy can be applied to other related materials or contexts (Ellis & Lenz, 1996).

So far, this discussion has centered on avoiding under generalization of newly acquired skills. Occasionally, depending on the type of skill taught, adults with LD also will over generalize. This phenomenon sometimes referred to as, "I just learned how to use a hammer and everything looks like a nail to me," occurs when an adult learns something but applies it indiscriminately. In this situation, it is your job to reduce overuse by teaching how to discern when it is appropriate (or inappropriate) to apply a skill or strategy. This is typically done through the use of non-examples (Kameenui & Simmons, 1990).

Non-examples are similar to example but vary slightly. To illustrate, if a teacher had just taught the phonic rule, "When a word ends with a vowel-consonant-e, you say the long sound of the vowel," and he/she provided only examples (words that ended with a v-c-e pattern) with which to practice, it is possible that in the future students might over apply the rule (for example, when reading a consonant vowel-consonant word with no "e" ending). In order to teach them to discriminate when the v-c-e rule applies or does not apply, the teacher should provide practice that includes both v-c-e words and words that don't end with "e" (e.g., made and mad' tape and tap). This requires close inspection of practice items to see whether the rule applies. The teacher should remember that non-examples are different from exceptions. Exceptions are items that are included under the rule but do not follow the rule. When teaching rules, it is a good idea for the instructor to introduce exceptions after students have mastered the rule. If a rule has many exceptions, it is probably not a good rule to teach because it has limited application.

Principle #14: Be Prepared

Although this principle is being presented last, it actually is the first step in the teaching process. The other principles are presented first to provide a context for this important principle. Too often, teachers do not put in enough "up front" time prior to instruction. It is obvious from the above process that teaching adults with LD is not a simple matter and that a lot of thought and planning need to occur if instruction is to be effective and efficient. Preparation and organization are not fun or exciting, but they are necessary.

Preparation of a lesson requires a lot of thought. Teachers need to prepare rationales for teaching, decide which prerequisite skills need to be checked, determine how they will model and which materials to use, produce relevant examples and non-examples, develop or choose appropriate practice materials, and so on. Without this type of preparation and organization, this instructional process becomes inefficient and, in fact, may be confusing.

Being prepared also includes making the use of the limited amount of instructional time. Teachers who spend the first 5 to 10 minutes of an instructional session getting their materials (and their thoughts) together waste valuable learning time. Teaching effectiveness research shows time and again that the more time spent teaching effectively, the higher the levels of student achievement (Kameenui & Simmons, 1990; Rosenshine & Stevens, 1986).

Strategies to Extend Student Thinking

REMEMBER "wait time I & II"
Provide at least 3 seconds of thinking time after a question and after a response.

UTILIZE "think-pair-share"
Allow indidvidual thinking time, discussion with a partner, and then open up for the class discussion

ASK "follow-ups"
Why?/ Do you agree? / Can you elaborate? Tell me more. etc.

WITHHOLD JUDGMENT
Respond to student answers in a non-evaluative fashion

SUMMARIZE
Ask for summary to promote active listening

SURVEY the class
How many people agree with the author's point of view?

ALLOW FOR STUDENT CALLING
"Richard, could you please call on someone to respond?"

DEVILS ADVOCATE
Play devils adovcate by requiring students to defend their reasoning against different points of view.

UNPACKED THINKING
Ask students tounpaid their thinking by describing how they got an answer.

RANDOMLY SELECT
Randomly select students. Avoid the patter of only calling on those with raised hands

ENCOURAGE QUESTIONS
Let tudents develop their own questions

CUE STUDENT RESPONSES
"There is not a single correct answer for this question. I want you to consider alternatives."

G. *Characteristics That May be Present in Adults with LD*

Characteristics of Reading Difficulties Associated with LD

- ➢ Does not read for pleasure
- ➢ Does not use reading to gather information
- ➢ Has problems identifying individual sounds in spoken words
- ➢ Often needs many repetitions to learn to recognize a new or unused word
- ➢ Relies heavily on context to read new or unused words
- ➢ Oral reading contains many errors, repetitions, and pauses
- ➢ Efforts in reading are so focused on word recognition that they detract from reading comprehension
- ➢ Has problems with comprehension that go beyond word recognition; may have limited language skills that affect comprehension
- ➢ Has limited use of reading strategies, is an inactive reader, not previewing text, monitoring comprehension, or summarizing what is read
- ➢ Practices reading rarely, which may compound reading difficulties; lacks complex language and word knowledge

Characteristics of Writing Difficulties Associated with LD

- ➢ Has difficulty communicating through writing
- ➢ Written output is severely limited
- ➢ Writing is disorganized
- ➢ Lacks a clear purpose for writing
- ➢ Does not use the appropriate text structures
- ➢ Shows persistent problems in spelling
- ➢ Has difficulties with mechanics of written expression
- ➢ Handwriting is sloppy and difficult to read
- ➢ Demonstrates difficulties in revising

Characteristics of Math Difficulties Associated with LD

- ➢ Does not remember and/or retrieve math facts
- ➢ Does not use visual imagery effectively
- ➢ Has visual-spatial deficits
- ➢ Becomes confused with math operations, especially multi-step processes
- ➢ Has difficulties in language processing that affect the ability to do math problem solving

Characteristics of Speaking Difficulties Associated with LD

- ➢ Mispronounces words
- ➢ Uses the wrong word, usually with similar sounds
- ➢ Confuses the morphology, or structure of words
- ➢ Has a limited vocabulary
- ➢ Makes grammatical errors
- ➢ Speaks with limited repertoire of phrase and sentence structure
- ➢ Has difficulty organizing what to say
- ➢ Has trouble maintaining a topic
- ➢ Has difficulty with word retrieval
- ➢ Has trouble with the pragmatic or social use of language

## Characteristics of Thinking Difficulties Associated with LD

➢ Has problems with abstract reasoning
➢ Shows marked rigidity in thinking
➢ Thinking is random, as opposed to orderly, either in logic or chronology
➢ Has difficulty synthesizing ideas
➢ Makes impulsive decisions and judgments
➢ Has difficulty generating strategies to acquire/use information and solve problems

Characteristics of Listening Difficulties Associated with LD

➢ Has problems perceiving slight distinctions in words
➢ Has a limited vocabulary
➢ Finds abstract words or concepts difficult to understand
➢ Has difficulty with non-literal or figurative language, such as metaphors, idioms, and sarcasm
➢ Confuses the message in complex sentences
➢ Has difficulty with verbal memory

Characteristics of Other Difficulties Associated with LD

➢ Has problems with attention, which may be accompanied by hyperactivity, distractibility, or passivity
➢ Displays poor organizational skills
➢ Has eye-hand coordination problems
➢ Demonstrates poor fine motor control, usually accompanied by poor handwriting
➢ Lacks social perception
➢ Has problems establishing social relationship; problems may be related to spoken language disorders
➢ Lacks "executive functions," including self-motivations, self-reliance, self-advocacy, and goal-setting
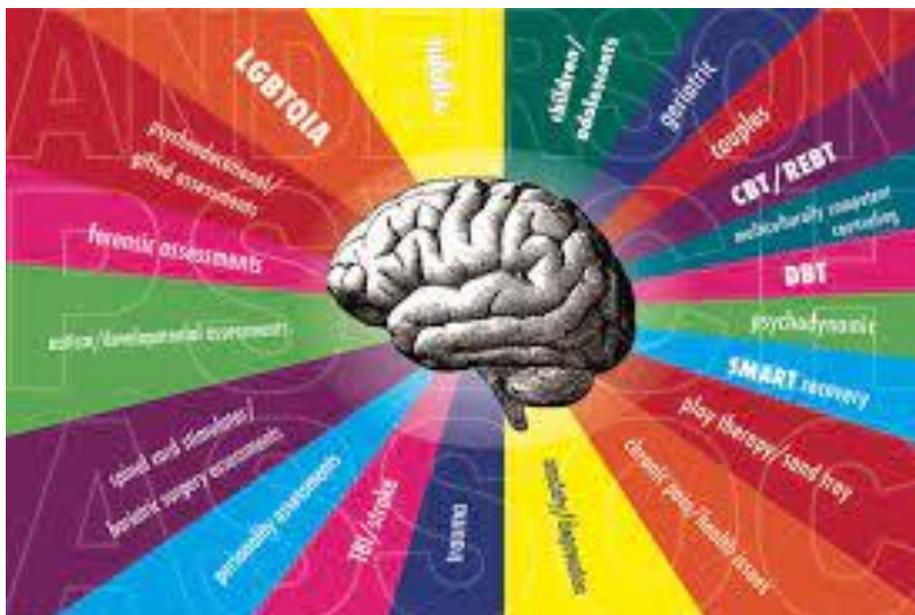
Digital Literacy:

A Guide for Adult Education Programs

Adapted from Massachusetts Adult & Community Learning Services

Wyoming Community College Commission

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Digital Literacy in Adult Education Curriculum and Instruction

An essential component of the services of a high quality Adult Education (AE) program is the integration of digital literacy into curriculum and instruction. Providing opportunities for students to explore, experiment, and develop expertise using real world applications while building academic skills prepares students for success in our digitally-connected world.

This resource is intended for educators charged with enriching teaching and learning with digital literacy. While the benefits of digital literacy proficiency are too numerous to capture in this document, some immediate uses of digital literacy include:

- Extend ongoing and self-directed learning through a wealth of distance learning, online and other interactive multimedia that may accommodate a range of learning styles
- Prepare for success in postsecondary education, training, and to compete for careers with a family-sustaining wage
- Support caregivers and children in the use of digital literacy in the home and with family
- Identify community resources, engage more fully in civic activities and participate in our democracy
- Become part of an online learning community

Rationale for This Document

The WYCCC defines digital literacy as: *the skills associated with using technology to enable users to find, evaluate, organize, create, and communicate information.* This definition derives from federal legislation, the Workforce and Innovation and Opportunity Act (WIOA) which recognizes a core purpose of adult education to prepare individuals with the skills and knowledge needed to succeed in postsecondary education and the workforce. Programs are required to not only develop students' academic skills with creative use of digital literacy tools, but to build the students' skill and confidence in becoming digitally literate.

Through the use of vignettes, illustrations are provided to show how some AE programs have successfully integrated digital literacy tools and competencies into instruction. A vignette illustrating how one director overcame teachers' resistance to using digital literacy tools in the classroom is also included.

For a wide range of reasons and given their varied circumstances, programs are in different stages of integrating digital literacy into curricula and instruction. Many adult learning programs are successfully integrating digital literacy skills into all levels of instruction. Typically, these programs are well-resourced with updated technology, trained staff, and classes that help prepare students for using technology in their AE and ESL classes.

Currently, many programs are using a wide variety of devices to accomplish tasks related to content-based instruction. These programs, for example, integrate technology into reading and writing assignments, use video resources to enhance content, and use mobile devices to improve writing skills by communication via e-mail or through texting. To prepare students for their next steps in college and career readiness, technology is frequently used in project-based approaches in which students use tools to locate information, conduct research, create and share presentations with one another, and provide feedback to improve subsequent presentations.

Teachers and directors reporting the most success in integrating digital literacy into their classrooms and programs display a sense of curiosity around technology, asking questions like: What can I do with this application? How can I begin to improve the effectiveness of learning with technology? How do I select and incorporate multimedia applications into lesson planning? How can I learn from my colleagues and the students themselves about what excites them and what works? What are ways to assess students' comfort level and skill level with new technology? Above all, teachers select tools and devices that do not distract from but augment the overall purpose of the curriculum and instruction.

At the same time, programs that remain under-resourced face a number of challenges. For example, veteran teachers may be challenged as to how to acquire digital literacy skills needed for teaching 21st Century skills. Other staff may be hesitant to master new skill sets and alter their instructional approaches. Students also represent a range—from those who embrace technology with enthusiasm to those who may resist using technology tools as part of their learning.

Alternatively, many programs have taken proactive approaches to increasing the digital literacy skills of staff and students. Some have used professional development time to focus on digital literacy, on researching and testing digital literacy tools, and finding ways to augment learning by their use.

Teachers and Directors may find this document useful as a springboard to develop their own ideas for integrating technology tools into curriculum, instruction, and lesson planning. Staff developers may use this as one resource to develop ideas for the professional development needs of the program.

A Standards-Based Approach to Curriculum and Instruction Calls for Digital Literacy

The WY AE system is built on standards in which curriculum, instruction, and assessment are aligned. These standards identify what students need to know and be able to do to succeed in the workplace, in postsecondary education, and in training. The *College and Career Readiness Standards for Adult Education* (CCRS) are research-based and informed by employers' and postsecondary representatives' assessment of what adults must know and be able to do to succeed in these areas. The standards describe skills that are critical for all students, including low-level AE students and English language learners.

Indeed, the cross section of panelists, including representatives from adult education, community colleges, career and technical training, and the military that contributed to the development of the CCRS identified what employers and educators will actually demand of future employees and students. Numerous CCRS specifically reference the use of technology in instruction. For example, Writing Anchor 6 states: *Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others*. Reading Anchor 7 states: I*ntegrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in word*s. In addition, Speaking and Listening Anchor 5 states: *Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations*.

ESL programs develop and/or utilize curricula emphasizing the academic skills of reading, writing, speaking, and listening aligned with the benchmarks in the *English Language Proficiency Standards .* It's essential also that an ESL curriculum integrates digital literacy. The ESL-related vignette included in this document reflects the use of digital literacy and its alignment with the ELPS.

How Was the Document Developed?

The document was developed by a digital literacy work group comprised of Massachusetts Adult Education teachers, adept at aligning instruction with the CCRS and integrating digital literacy into instruction. Teachers contributed examples of classroom practices that align with the CCRS to illustrate digital literacy competencies employed in various AE instructional levels. These stories were developed into illustrative "vignettes" to give readers a view of digital literacy in practice. Also included are some selections from the teachers' own digital literacy professional development practice. We hope that the vignettes offered here will spark ideas for programs to begin or expand the use of digital literacy tools into their own teaching and learning.

Resources

Researching online resources can take up a disproportionate amount of a teacher's prep time. The resources offered in this document have been identified as useful by classroom teachers who have used them successfully in their classes.

Vignettes Illustrating Digital Literacy Competencies

The following vignettes, drawn from real-life experiences in the classroom, illustrate how some teachers are integrating digital literacy into instruction. To the right of each vignette are the Anchor and Level Specific Standards that guided the development of the teacher's lesson. At the conclusion of each vignette are the digital literacy competencies integrated into the lesson.

We hope these stories will provide ideas and resources as you to continue to uncover and experiment the digital literacy tools and resources best suited for your students.

Promoting Confidence in Digital Literacy: Creating a Word Cloud

Teachers can promote students' digital confidence by carefully integrating digital learning activities into their overall teaching goals. Low-key activities can reduce students' anxiety with technology and promote willingness to experiment with new digital literacy skills for more academic purposes. The following vignette illustrates the use of an engaging activity to promote learner confidence while enhancing basic digital literacy skills.

One teacher in an adult career pathways program (with students at EFL Low Intermediate ESOL through Advanced ESOL Levels and at High Intermediate Basic Education Level) had been teaching basic word processing skills over several weeks. Skills included creating new documents, using font features, and inserting photos. The class worked on evaluating and citing resources around health issues. The class reviewed the differences between nonprofit (.gov or .edu) and commercial (.com) sites and explored the difference in their underlying purposes.

At the end of the cycle, students were assigned to complete a research project on a health issue of their choice. The project was intended to display new content knowledge as well as mastery of beginning digital literacy skills. The teacher guided the students to sites trusted by teachers: the Centers for Disease Control and Prevention, the National Institutes of Health, and specific disease associations, such as the Alzheimer's Association. Students compared the information on these sites to that on a commercial site, such as a drug company. While incorporating CCRS level-specific standards and instructional shifts, the teacher also wanted to add an interactive tool for students to use that would allow them to insert some of their own creativity into a culminating research project.

To increase students' comfort and facility with their new online skills and to encourage practice through experimentation and play, the teacher asked students to create a word cloud in the final project submission. A word cloud is an image, generated by a website like Wordle, where words increase in size according to their importance in a piece of text. The teacher directed the students to the Tagxedo site (www.tagxedo.com), one of many sites available to create word clouds. She chose this site because of her own comfort level with it—an important factor in selecting any application or activity for the classroom. She asked each student to create a word cloud and to save it for the final project. Students practiced using the mouse by pointing, clicking, dragging, dropping, and saving, while developing increased comfort using the keyboard and mouse while creating a final product.

Connection to CCRSAE- Anchor and Level-Specific Standards

- *Reading 4*: Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.
  - Level C-Determining the meaning of general academic and domain-specific words and phrases in a text relevant to a topic or subject area. (RI.5.4)

- *Writing 7*: Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.
  - Level B-Conduct short research projects that build knowledge about a topic. (W.3.7)

- *Speaking & Listening 5*: Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.
  - Level C-Include multimedia components and visual displays in presentations when appropriate to enhance the development of main ideas or themes. (SL 5.5)

Creating a word cloud showed students that they could experiment with a new digital tool. Students agreed that the practice in creating word clouds increased their confidence in using the mouse, keyboard, and online learning tools.

Some students took their enthusiasm for word clouds home. They introduced the activity to their children who enjoyed creating cards and t-shirt graphics, thus promoting family digital literacy—an unexpected and welcomed outcome from the project.

Competencies	Related Skills
Displays understanding of digital literacy concepts and vocabulary	• Uses a mouse pad • Demonstrates beginning level keyboard skills
Uses basic toolbar and scrolling features	• Opens and closes applications on the computer
Searches for and locates information and resources online	• Chooses browser • Displays understanding of browser toolbar button • Displays understanding of URLs and links

Resources
Centers for Disease Control and Prevention - www.cdc.gov
National Institutes of Health - www.nih.gov

Understanding Copyright and Fair Use in a Low-Level ABE Class

When can someone freely make use of material they find online? When are these materials restricted by copyright laws? These distinctions can be confusing for students as they encounter the increasingly rigorous demands of the CCRS in their research and writing.

An AE teacher (with students at EFL Low and High Intermediate Basic Education Levels) developed a unit to help students understand the concept of copyright and fair use after discovering that that some students borrow freely from the Internet, often without regard to copyright.

Understanding Copyright and Fair Use

To introduce the lesson, the teacher explained that the creator of a piece of writing, art, photography, music, etc., has certain rights and protections (copyright). However, despite those rights, there are times when the work—or part of the work—may freely be used by someone else (fair use). [For more information about copyright and fair use, please see the resources listed at the end of this vignette.]

To help students when fair use allows a copyrighted work to be freely used, the teacher gave students summaries and pictures from several copyright court cases. Students learned how the court applied the fair use standards and rules in each case. While the teacher adapted the text to reflect the instructional reading level of his students, the content of the summaries included complex text and academic language—an important instructional shift underlying the CCRS.

Obama "HOPE" Poster

The teacher gave students the iconic Obama "HOPE" poster case to study. In this court case, the Associated Press (AP) wanted compensation from the artist.

Students were divided into groups and assigned roles: advocate for the representative of the Associated Press and representative of the court. Each of the principal groups presented arguments for and against a violation of copyright.

Then the group of students representing the court ruled on the case. Afterward students debriefed and each wrote a summary—using basic word processing skills to draft, revise, and edit their pieces—addressing the following questions: Did students agree or disagree with the court's ruling? What was learned about copyright and fair use? How would the new information apply to an upcoming project requiring research?

Challenges

Although the teacher provided examples—through his explanation and the court cases he presented—that profiting or not profiting from the use of copyrighted material has no bearing on whether or not the use is a fair use, students continued to believe that any nonprofit use of images found online is allowed. They thought that if they were not making money off the image, it was permissible to use it. Students also continued to believe that any image found on Google Images may be used in any context despite the clear disclaimer on the images that someone may hold a copyright.

The teacher realized that students needed to learn more about copyrighted and fair use material beyond the introductory lesson. As a follow up, he introduced the requirement that attribution of outside materials be included in every student-developed product, and that the issue of copyright/fair use is addressed in any narrative with the project. This allows for multiple rounds of feedback on copyright and fair use and gives students practice in writing citations. In addition, he plans to create a poster that summarizes the information so that students can use it as a quick reference.

> **Connection to CCRSAE-** Anchor and Level-Specific Standards
>
> - *Reading 1*: Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.
>   - Level C: Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text. (RI/RL.4.1)
>   - Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.(RI/RL.5.1)
>
> - *Reading 7:* Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.
>   - Level D: Integrate information presented in different media or formats (e.g., in charts, graphs, photographs, videos, or maps) as well as in words to develop a coherent understanding of a topic or issue. (RI.6.7)

Outcomes

Because of the teacher's willingness to press on with these distinctions, students increased their understanding of copyright protections under the law—especially that the creator of a work (art, text, photograph, and video) has certain rights and that using the work without permission may violate those rights. Along the way, students increased their digital literacy–related vocabulary terms, such as infringement, public domain, digital copy and Creative Commons, which are free copyright-licenses. Students actively applied their understanding of these terms when they participated in the role-plays and wrote their summaries.

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Competencies	Related Skills
Displays understanding of digital literacy concepts and vocabulary	• Uses a mouse pad • Demonstrates beginning level keyboard skills
Creates products and content using digital tools and software (Writing Focus)	• Displays understanding of plagiarism and need for citations. • Displays understanding of Copyright and Fair Use

Resources

"Five-Minute Film Festival: Copyright and Fair Use for Educators" http://www.edutopia.org/blog/film-festival-copyright-fair-use - Short video showing middle school students displaying understanding of copyright and fair use.

"The Educator's Guide to Copyright and Fair Use" - www.educationworld.com/a_curr/curr280.shtml - This five-part series covers a range of legal issues for teachers.

Understanding the Consequences of Digital Footprints

A student's online presence in social media can affect him or her in unintended ways. A full understanding of how a digital footprint is created—and what consequences that footprint can have on a student's personal, professional, and educational life—is an important topic for teachers to cover in their classes.

Facebook Exposure

The teacher approached the topic of digital footprints after a particular incident occurred in her AE class. The students (EFL High Intermediate Basic Education Level) had been deeply engaged in a book, *I Don't Wish Nobody to Have a Life Like Mine: Tales of Kids in Adult Lockup,* by David Chura. Several students asked the teacher if Mr. Chura had a Facebook account; they were interested in communicating with him about the experiences he recounted in the text. The teacher located his account, and the students sent him friend requests. When the author received the requests, he accepted most of them. However, he initially did not accept one of the requests, by a student with a very revealing Facebook photo. When Mr. Chura learned that this person was one of the AE students reading his book, he brought the account photo and the issue of professionalism to the teacher's attention.

Learning about Digital Safety

This incident became a teachable moment. The teacher shared the author's feedback with her students, who then asked if there was any way to separate personal and professional presentation in an application like Facebook. The class then researched the differences between private versus public sharing on Facebook; they deepened their inquiry to examine what material is always public and what material can be made private. This included a review of default settings and the ease or difficulty with which these settings can be altered. Most of the students had little or no exposure to the idea of presenting oneself professionally, no matter what the context.

After learning about digital footprints—the personal history of one's Internet use— students had a deeper understanding of online professionalism and social etiquette—important elements in career exploration and employment searches. Students considered their public presence on social media and what prospective employers (or anyone else) might find there. As in the case with the revealing Facebook photo, they recognized that without the proper settings, material intended only for friends could actually be available to a larger, unintended audience. The teacher also explained that Facebook is only one of many applications where an understanding of one's digital footprint and personal presentation is important. Any linked account (for instance, any account that asks you to log in with Google, including Snapchat, Instagram, and Twitter) retains a history of use. With this new knowledge, the class reviewed older (pre-digital literacy) concepts like: "You never get a second chance to make a first impression."

Effective and professional personal presentation is an important employability skill. As our outcome measures are tied to WIOA, helping students recognize and act on this idea is increasingly important. For example, students often need to apply for jobs online, and their online cover letters are the first impression they make to prospective employers. Observing email etiquette in the workplace and recognizing the difference between texting a friend and a supervisor are important workplace skills.

Connection to CCRSAE-
Anchor and Level-Specific Standards

- *Writing 6*: Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.
  - Level D: Use technology, including the Internet, to produce and publish writing and link to and cite sources as well as to interact and collaborate with others, including linking to and citing sources. (W.7.6)

- *Writing 7*: Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.
  - Level C: Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic. (W.5.7)

- *Speaking and Listening 1*: Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own.
  - Level D: Acknowledge new information expressed by others, and, when warranted, qualify or justify their own view in light of the evidence presented. (SL.8.1)

Competencies	Related Skills
Uses social media effectively and safely	• Recognizes consequences of public accounts such as Facebook
Considers safety, privacy, appropriateness and digital footprint before using digital tools	• Chooses appropriate privacy and other settings

Resources
 "Digital Footprints: What Kind of Mark Are You Leaving?" - www.smore.com/xta5u-internet-safety

Creating Portfolios Using Google Tools in an ASE Class

A well-equipped adult learning program with strong technical support and an appreciation for digital literacy can help instructors integrate digital literacy skills into their teaching. One large ASE/ESL program illustrates the value of ongoing training and support for staff, which benefits students at all levels. Access to technology at this center is excellent: teachers can reserve a computer lab for teaching or reserve laptops and iPads for use in class; a tech coordinator facilitates regular staff trainings.

To ensure that students are prepared with basic computer skills, the program requires that all students (EFL High Intermediate Basic Education Level) enroll in a basic skills class when they first enter the program. In that class, they receive instruction on setting up a work/school Gmail account. Students become accustomed to checking that email regularly for school-related announcements, cancellations, and assignments. Because of these expectations, by the time students arrive in any teacher's class, they have internalized a routine for using email in their school setting. This helps each teacher move further along with more complex tasks via Google.

Each teacher in the ASE program receives training in using Google—not just for the basics, but also in integrating complex learning tasks. Staff trainings are a regular feature. As a result of the trainings, teachers develop competence—and confidence—in guiding students to create a portfolio of class materials on Google Drive, including essays, resumes, cover letters, and any other written work that is assigned. As a result, students begin practicing the skills they will need to complete postsecondary work and to explore career paths.

Using Google Tools in a Health Unit

To help students practice drafting, revising, and saving their written work digitally, one teacher introduced Google Drive to her students at the beginning of a health unit. She asked students to complete a writing assignment that described a visit to the doctor, and she provided prompts for the students to follow. She wanted to:

- start a conversation about the health care system in the U.S.;

- instruct students in drafting, revising, and editing a piece of writing, and

- demonstrate Google Drive's utility in helping with sharing documents, receiving feedback, and making revisions—all tasks students will need to do in a higher-education setting.

Further, the teacher recognized that HSE students need to complete a timed writing portion of the HSE test solely on the computer.

> **Connection to CCRSAE-**
> Anchor and Level-Specific Standards
>
> - *Writing 4*: Produce clear and coherent writing in which the development, organization and style are appropriate, and style are appropriate to task, purpose and audience. (W.5.4)
>
> - *Writing 5*: Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.
>   - Level C: With guidance and support from peers and others, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach (W.5.5)
>
> - *Writing 6*: Use technology, including the internet, to produce and publish writing and to interact and collaborate with others.
>   - Level C: With some guidance and support, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; … (W.4.6)

Step by Step

The teacher's direct instruction began with the basics: how to begin a document in Google Drive— (in this case, the doctor's visit), how to invite the teacher to view and edit the work, how to view teacher comments, and how to respond to teacher comments within Drive. Once students uploaded their documents, the teacher told them to expect teacher responses within 24-48 hours and reminded them that they could go into the Drive to review comments and suggestions at any time.

Challenges

The teacher's biggest challenge was convincing students that their documents are safe on Google Drive. She explained that there was no need to print out hard copies or store the documents on a flash (pen/thumb) drive. Getting students to

trust the technology and try out new tools is a big step toward easing the path to higher education and employment training. Students gradually came to trust using Google Drive when they saw, over time their files were still where they placed them.

The teacher also discovered some initial resistance to writing first drafts on the computer. Many students preferred writing out their drafts on paper, then transferring them to "final drafts" in Google Drive. However, the more students gained experience with Google Drive, the more they saw the advantage of composing directly into a document.

Patience
The teacher did not force the students to compose on the computer right away, and her patience allowed students to develop their confidence level and move away from pencil and paper drafts on their own time.

As a result of using Google Drive, students learned skills to create a body of work that is accessible anywhere they are able to get online—using a phone, iPad, laptop, or desktop. This work can travel with them beyond the program. Students do not have to worry about losing their work, as they do with a flash drive, or other external storage device. Students gain confidence in using Web 2.0 tools, which are critical 21st Century tools.

Beyond Bells and Whistles
This teacher describes herself as digitally confident; she can't wait to try out new digital tools when she hears about them. She takes time to experiment with the new tools, see how they work, and identify uses (if any) for the classroom. However, she recognizes that she cannot force a fit with tech tools when there isn't one, as fun as a new app might be for her! This instructor's thoughtful approach illustrates how good teachers select digital literacy tools in service to instructional goals, not just to implement the newest bells and whistles in the ever-expanding technology arena.

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Competencies	Related Skills
Builds upon basic digital literacy and vocabulary	• For example: Cloud storage
Displays deeper understanding of computer functions and use	• Manages multiple windows • Manages files
Manages stored information effectively	• Recognizes need for backing up information and files • Evaluates systems vs./or in addition to external hard drives
Creates products and content using digital tools and software	• Uses word processing to draft, revise, and edit a piece of text in response to academic assignments

Integrating technology into instruction does not mean that teachers have to let go of time-tested pre-digital teaching approaches. One teacher, for example, continued to guide his students in the scientific method while enhancing the process by integrating appropriate digital literacy competencies. As a result, the students learned research methods while upgrading their technology skills, which included video capture and editing, working with sound, and project pre-planning and execution (scripts, storyboards, roles, deadlines, tracking, labeling and organizing media).

The Project

Students (EFL Low and High Intermediate Basic Education Levels) followed traditional steps in the scientific method— an academic skill set that reflects an approach to inquiry. They defined a problem, generated a hypothesis, collected and analyzed data, drew conclusions, and published their results. The experiment, which reflected the integration of several CCRS anchor standards, also displayed the teacher's attention to the instructional shifts in the standards.

The project was designed to test four different brands of batteries to determine which ones lasted the longest. Using clocks as a vehicle for testing the batteries allowed for a built-in method of determining when the batteries wore out. The students also decided to include cost as part of the analysis to determine which battery offered the best value.

Smartphones and Tablets Help with Documentation

Students were required to keep a journal during the planning and execution of the experiment. They also documented their work by using Smartphone and iPads to take photos and video. As they set up the experiment, students narrated what they were doing as they stripped wires and made electrical connections. Students made predictions about which battery might last the longest and explained the thinking behind their predictions. Students drew from this collected documentation material to create a "making of" presentation about the experiment.

Displaying Results through Videos

To display the results of the experiment, the teacher guided small groups of students in creating a series of 30-second video commercials. The purpose of the videos was to "sell" the winning battery as determined by the experimental results. This approach replaced the traditional trifold poster board presentation of research results. None of the students had much experience with video beyond the ability to capture short clips on a Smartphone. However, the teacher found that the basics of video creation are easy to master and there are great online resources to help students prepare.

The first task was to prepare simple scripts and storyboards. By exploring websites where they could find royalty-free music, students learned about the difference between copyright and fair use materials. They also learned the basics of video creation by using Windows Movie Maker or iMovie for Mac, both of which are easy and fun to use.

Challenges and Solutions

Video formats can be a frustrating mishmash of non-standardization. Many users are familiar with JPEGs, GIFs or PNGs (common image formats) to move images easily between programs. Video is not like that. Creating video on a variety of devices (Smartphone, digital cameras, and tablets) often requires image conversion before editing. This isn't impossible, but it adds a layer of

Connection to CCRSAE- Anchor and Level-Specific Standards

- *Writing 1*: Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.
  - Level D: Write arguments to support claims with clear reasons and relevant evidence…. (W.7.1)

- *Writing 6*: Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.
  - Level B: With guidance and support, use technology to produce and publish writing (using keyboarding skills) as well as to interact and collaborate with others. (W.3.6)

- *Writing 7*: Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.
  - Level B: Conduct short research projects that build knowledge about a topic. (W.3.7)

- *Speaking and Listening 4*: Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.
  - Level D: Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation. (SL.8.4)

complexity and possible frustration. One solution is to use one device—like an iPad—for all video capture and editing. Staying safely in one environment will make things much easier.

The project unfolded over several weeks and included a full bank of supplemental reading and writing activities. The students appreciated the group work and change up in their regular classroom routines. They responded more positively to some of the activities than others: no one wanted to appear in the video itself, so the class explored ways to create the videos without involving personal appearances.

Wrapping it up
When the videos were completed, the teacher organized a movie day where the students presented the commercials. Through the creation of the videos, students had also developed a more sophisticated analysis of commercials as a persuasive media product. The teacher is now exploring the use of video in other curriculum units and classes as a vehicle for formative and summative student assessment.

Competencies	Related Skills
Displays understanding of basic elements of mobile devices and uses Smartphone as a learning/productivity tool	• Locates icons correctly • Uses phone for web access • Uses basics of camera function
Manages stored information effectively	• Recognizes need for backing up information and files • Uses flash drives/external hard drives to save and share work • Uploads and downloads files from secure sites
Creates products and content using digital tools and software	• Uses word processing to draft, revise, and edit a piece of text in response to academic assignments • Creates simple video to display research results

Digital Flashcards: A Modern Take on an Old Classic

Many low-tech teaching tools can be digitized for purposes of efficiency without losing the original value of the tools themselves. One teacher in an onsite workplace education class wanted to update her use of flash cards; she discovered that having her students use their cell phones to photograph flash cards would facilitate their use.

Limited Technology Onsite

Classes in this program are held at a major medical center in Massachusetts where the students (EFL Low and High Intermediate ESOL Levels) work. As with a large number of onsite workplace education classes, there is limited access to computers. However, at this site, there is access to the Internet. The teacher had been making good use of her own iPad to show short videos in class and to explain vocabulary words they encountered through class discussion or in instructional texts.

Updating Flash Cards

The teacher describes herself as a "flash card enthusiast," noting the value of flash cards as tools to maximize learning outside of class time and, as manipulative that address the needs of tactile learners. She has created many flash-card sets with pictures and words relevant to her students, such as health care terms and sight words. After creating sets of flash cards, she models instruction for various uses of the cards at home—for example, playing a Concentration game, categorizing, or matching. Students take a set of about ten cards home with them per week. Each set is organized with a particular learning objective.

> **MA ELPS**
>
> **R5.2a** Use information gained from visuals *(e.g., images, maps, cartoons)* to support comprehension.
>
> **R1A.2a** Read and comprehend high-interest environmental print and simple information, such as…very simple one-step written and illustrated directions *(e.g., Turn the page; Copy the word.)*
>
> **L/S3A.4a** U sing context and a developing knowledge of English morphology, understand and use common academic *(e.g., conclusion, strategy)* and content-specific *(e.g., inventory, endangered species)* words and phrases.

A Need to Modernize

Students had trouble keeping their flash-card sets together and organized, even though they recognized the value of the cards as a learning tool. To address this problem, the teacher has tried a variety of strategies: keeping the flash cards in envelopes, using key rings to hold laminated cards pre-punched with holes, and organizing them in binders. She has found, however, that students seem to lose or mix up the cards, no matter how the cards are organized. When this happens, the sets of cards lose their learning aims, and students become less interested in using them. The teacher then began to explore the use of online apps to create flash cards that might help students keep them organized. Most of the apps she found were cumbersome and time-consuming and did not allow for the flexibility and customized approach she wanted. Then she happened upon a solution, one that maximized use of students' Smartphone as an extended learning tool.

Small Steps

First, the teacher typed up her sets of flash cards for increased clarity, and added visuals as needed. She then showed students, step by step, how to take pictures of the flash cards by phone. All students practiced scrolling and swiping techniques to get to the next card.

Next, the teacher arranged a set of cards in sequence that included a header card identifying the set. This sequencing was an important step toward using the cards effectively; because cards could not be "flipped" like actual hard-copy flash cards, students had to be sure they were in order. For example, one header (the first photo) read: IRREGULAR PAST TENSE VERBS. The next card showed the verb "take," and the next card (essentially the "back" of the flash card) showed the verb "took." Each student snapped and saved photos of the flash cards. The teacher also guided them in creating folders to organize their card sets.

Once cards were photographed, students could use them to practice on their own time. They could easily delete the cards when they were finished with each set, or reorganize them. Having the cards on their phone decreased the chance the cards would get lost, and they were always easily accessible. Students could practice with the cards on break, on the subway or bus, or during downtime.

Simple Modernization

Photographing and saving flash cards on the phone resolved the issue of organization. It also seemed to increase students' use of the cards. This approach did not require Wi-Fi or registration with a learning program. The students had to figure out how to organize picture files on their phones and, when new pictures were taken, how to drop them into a folder. Since students were adept at scrolling through pictures, they were able to access and use the flash cards when needed. While the teacher still made use of hard copies of flash cards in class, the photo technique greatly improved their out-of-class use.

Adapting the Technique

Not every teacher is a flash card enthusiast. However, after sharing her success with her colleagues, the teacher discovered they were adapting the phone/camera approach for other purposes: One teacher asked her students to take pictures of a classroom-generated language experience story posted on a whiteboard so that they could take it home and copy it. Another had students snap a photo of a writing prompt, essentially using the phone to keep track of homework assignments. Students also can photograph new vocabulary that often emerges in a class and is explained on the board.

Connection to CCRSAE-Anchor and Level-Specific Standards

- *Reading Foundational 3:* Know and apply grade-level phonics and word analysis skills in decoding words.
  - Level C: Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context. (RF.4.3 and 5.3 merge)

- *Language 4*: Determine or clarify the meaning of unknown and multiple-meaning words and phrases by using context clues, analyzing meaningful word parts, and consulting general and specialized reference materials, as appropriate.
  - Level A: …using an array of strategies… (L.1.4)

- *Reading 4:* Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.
  - Level A: Ask and answer questions to help determine or clarify the meaning of words and phrases in a text. (RI.1.4)

Competency	Related Skills
Uses multiple digital literacy instructional tools to achieve content areal learning goals.	• Uses/ adapts to various devices and technologies (tablets, mobile devices etc.) • Uses apps, software and web sources for teaching

Resources

For more information about language experience stories, see http://www.cal.org/caela/esl_resources/digests/LEA.html

Risks and Rewards: Learning from Mistakes with Digital Literacy

Even with the best of intentions, experiments in trying new technology tools can sometimes fall flat. But as teachers tell students all the time, taking risks—with new language, technology, or in other areas—can sometimes accelerate learning, as long as we reflect on what went wrong. The vignette that follows illustrates how a teacher rushed too quickly to adopt a new tech tool but learned from her experience about how to be better prepared in future efforts.

Workplace Education Class

Onsite workplace education classes typically meet for a limited number of hours a week. One workplace education program where students met once a week for three hours decided to implement an online learning system to extend teaching and learning time outside of class. The students (EFL High Beginning ESOL Level) needed to improve their English language and digital literacy skills to maintain or advance in their health care jobs. Their limited class time impeded significant learning progress.

The teacher chose Edmodo because of its great success in a college prep class in their workplace education program. Edmodo (www.edmodo.com) is an educational learning tool. It offers templates for teachers to create customized websites for their classes and can serve as a useful way for students to increase their learning time. Students can access assignments and resources that the teacher uploads. They can also share written assignments with one another and receive feedback. The teacher assumed that since Edmodo worked in one class, it could be imported into another with good results. She envisioned using Edmodo to help students reinforce vocabulary and lessons introduced in class.

Working with a more digitally experienced colleague, the teacher set up the Edmodo site. Together, they introduced Edmodo to the class in the computer lab by projecting the site onto a screen. Their intention was to allow students to follow along as the teachers explained all the features and to assist students one-on-one.

Students became confused early on. As the teachers attempted to clarify their questions, it became clear that neither the students' digital skills nor their digital comfort level were up to the task of learning Edmodo. The teachers continued to plod through the instructions, but both the students and the teachers became increasingly frustrated. So they offered the students a break and took time themselves to debrief.

A Back-up Plan

When the students returned from break, the teachers explained that they were going to try something different. They wanted to focus on some digital skills building, but without overloading the students. They logged on to the Northstar Digital Literacy Project (www.digitalliteracyassessment.org), a site that helps users assess their digital literacy skills and improve them in the process. Students began by practicing using the mouse, a task they could easily handle. This step reduced their anxiety and frustration and provided them with a feeling of success.

Lessons Learned

The two teachers concluded that despite what they thought was careful planning, they were not adequately prepared to introduce Edmodo to the class, nor did they have a well-thought out plan for how they intended to use it as part of their curriculum. By comparison, in the college prep class the teacher had a clear goal for how Edmodo could facilitate a collaborative writing process; she also had a detailed plan for each orientation session. That clarity was lacking when she attempted to integrate Edmodo into the lower level class. Students became frustrated and questioned the use of the online tool.

The teachers realized that they should have asked a series of questions that would have led to a more defined teaching sequence in introducing Edmodo. In their excitement to implement something new, they neglected to align the use of Edmodo to the overall class agenda.

The students' frustration did not arise from their limited language ability. With a proper plan, broken down into very small steps, students could have adjusted to the learning tool over time. However, the teacher realized that Edmodo was not an

essential for the class at that time. She decided she would revisit the integration of something like Edmodo in the future, but only when it seemed that there was a more compelling reason to do so.

To her credit, the teacher was not dissuaded from trying to use technology in the classroom. Rather, she was reminded that each teaching activity—and attendant tools—needs to be congruent with learning goals. For some activities, tech tools enhance learning. For others, less "modern" approaches might serve as the best method. As a result of the experience, the teacher has become more curious about ways to integrate technology in simple ways, especially by using a tool most students have with them at all times—their phones.

_____

Competencies	Related Skills
Uses multiple digital literacy instructional tools to achieve content areal learning goals.	• Uses/ adapts to various devices and technologies (tablets, mobile devices etc.) • Uses apps, software and web sources for teaching
Keeps up with new developments in technology and evaluates their effectiveness in the classroom	• Uses an online learning management system

A Program Administrator Helps Staff Improve Digital Literacy Skills for Data Collection

Introducing new technology tools into a program can evoke anxiety on the part of many staff members. When program administrators anticipate issues and plan ahead before insisting on a new digital system or tool, they can help staff feel confident about adapting to the changes, and increase the chances that staff will see the value in using new tools.

One program director in a large adult education program recently replaced hard-copy attendance books with an online system, with the goal of increasing the efficiency of data collection. The old paper and pen method of recording attendance was cumbersome and time consuming when entering data into LACES. The director wanted a no-cost system that would allow "real-time" electronic attendance tracking by instructional staff, easy manipulation of fields to allow for changing class makeup; the ability to track for LACES data entry, and confidentiality of data.

After attending a professional development workshop, the director settled on LiveBinders, a digital organizational system that stores documents, images, videos, and web pages. As with traditional three-ring binders, information can be organized by tabs and could be adapted to the specific needs of a program.

How Does LiveBinders Work?
Each teacher was assigned a binder of his or her own—set up by the data entry specialist—that included a tab for each class and a sub tab for each month of the year. Each class binder, updated monthly, reflects the current list of students in each class and the days each class will be in session that month.

Instructors were trained to go into LiveBinders and use it to mark a student as present, tardy, absent, or no longer attending. Space at the bottom of the page allows for teacher notes as a way to communicate other details about the student.

LiveBinders allows for restricted access to information. The creator of the binder can invite specific staff people (such as academic advisors) to have access to a particular binder and its contents. Options for access include read-only or permission to change data. This feature addresses a program's need for confidentiality and selective data sharing.

At the beginning of each class, instructors now pull up their LiveBinders screen on the computer in the classroom. Once class begins, it takes seconds to take attendance. Once the information is saved, it is visible by everyone with permission to access that binder. (Editing is as simple as clicking "edit," making changes, and saving the changes.)

Challenges and Solutions

Initially, teachers resisted the switch to LiveBinders. However, they adapted very quickly. The program provided a significant amount of support to ensure a smooth transition, and the director also reassured teachers that they could continue using their hard-copy attendance books if they wanted to, but that official data entry needed to be recorded in LiveBinders.

The drawbacks of using LiveBinders are minimal. For example, some instructors found it frustrating to have to go back into LiveBinders to mark students as tardy when they show up late, after they have been marked as absent. These teachers now find it more efficient to take attendance just before the end of class.

Teachers new to technology can accidentally erase the attendance grid. This happened frequently in the beginning stages of adjusting to LiveBinders, but accidents have decreased with additional practice. In addition, the data entry specialist makes copies of each week's attendance as backup for new teachers.

Additional Benefits

LiveBinders has proven useful for real-time communication among instructional, data-entry, advising, and administrative staff regarding attendance and other issues. Notes go back and forth all the time, such as reminders and alerts, opportunities, and changes in a student's status. Unlike email, teachers open LiveBinders at the beginning of every class, so notes can be timely.

LiveBinders also provides year-at-a-glance attendance, replacing bulky attendance-sheet folders and boxes of papers with attendance jotted down on scrap paper. It reduces time putting together year-end stats: these stats "live" in LiveBinders and can be archived from year to year. LiveBinders has also streamlined the data collection and entry process for data entry staff.

Nice Surprises

LiveBinders has been accepted so well by staff that it is now used for purposes beyond attendance taking. These uses include recording electronic advising notes and recording test scores. Instructors now use LiveBinders to maintain and document their weekly meeting minutes. One teacher volunteers to take notes, directly into the binder, each week. This information can then be seen and addressed by the administration and advising staff as well.

Lessons Learned

Staff training and support was a critical element in making LiveBinders work. Administrative staff spent a great deal of time anticipating potential issues and in creating step-by-step job aids. Further, they continued to support staff after the initial pilot and launch stages and intend to make a similar time investment in future programmatic changes that involve technology.

Responding to Teacher Resistance in Using Digital Tools: One Program Director's Story

Program directors and professional development trainers are sometimes met by teachers' resistance to the adoption and integration of digital literacy into the classroom.

One director in a large ASE/ESL program decided to step back—several times—and examine this resistance in order to target support for teachers as they, along with their students, become more digitally proficient.

Reasons for Resistance

Teachers often question why they should change when they've been teaching for many years and are having successful outcomes. This sentiment reflects a lack of comfort with technology or how to use technology to support teaching and learning. While many adult educators are digitally adventurous, some may be wary of using online tools.

Prior to WIOA, expectations around technology were less rigorous and did not reflect the deeper skills of finding, evaluating, organizing, and communicating information. It's possible, with the recent and rapid changes in technology,

that teachers may not be aware that for students to succeed in college and careers they must be digitally literate. The director soon realized the need to engage teachers in a deeper understanding of how they could move toward embracing digital tools for learning purposes.

Understandably, staff also resisted digital integration because of the confusing array of digital resources and tools available. The director found that providing lengthy lists of possible tools had the opposite effect from what she intended; teachers felt overwhelmed. Staff did not have the time to vet the tools, figure out how they work, or determine how they could be integrated into instruction.

Addressing Resistance: What Did Not Work
Early on, the director tried many approaches to integrate digital literacy into instruction. Most were not successful. First, she left it open and asked teachers to integrate technology into their teaching on their own terms. Teachers took their students to the computer lab and with the help of a device called a document reader used its capability to enhance video or speech to access keyboarding tutorials. However, the teachers did not move much beyond these activities.

Next, the director attempted a more specific approach, asking every teacher to create and use a wiki in his or her classroom. (A wiki is a website that allows collaborative editing of its content and structure by its users. To illustrate possibilities, she, along with the technology coordinator, developed a model program wiki and an advising wiki.) The technology coordinator also set up individual and group lessons on the basics of wiki creation and offered support as staff worked to create an interactive site. They discovered that this task was much too complicated and, in light of other teacher responsibilities, too time-consuming.

Next Steps
Convening a digital literacy working group proved to be a useful next step. Four staff members—teachers who understood the value of digital literacy and who had willingly explored technology tools—came together. They enthusiastically shared tools they had used and explored ways to adapt them for ASE or ESL.

Because the group realized that not all teachers are not enthusiastic about digital literacy; they began to explore small steps for increasing the digital comfort level and expertise of the rest of the staff. The group started by assessing staff digital needs and interests through a survey created with Survey Monkey. To encourage honest responses, staff could answer anonymously. Based upon on survey results and conversations with staff, the director decided to move forward with a plan to develop the digital literacy skills of students and staff at the same time.

New Teacher Workshops
The new plan involved a more cohesive approach to staff development and the creation of new program policies, using Google as a jumping off point. The director and technology coordinator developed several workshops to introduce staff to the benefits of Google Drive and to help staff open Gmail accounts. This approach provided a shared starting point. During these workshops, they reassured teachers that non-digital, tried-and-true teaching approaches are still essential. However, they included discussions of, and information about, the growing imperative for students to become digitally proficient to succeed in postsecondary education, employment, civic participation, and family life.

New Policies
Two new policies helped move digital literacy integration forward. All the students are now required to have Gmail accounts, and all regular class business (announcements, absences, etc.) is conducted using those accounts. This policy provided a structure for students to become familiar and comfortable with using email.

Further, teachers are required to save all written classroom assignments—originals and revised versions—to Google Drive. This process has resulted in a significant savings per year formerly spent on flash drives for students.
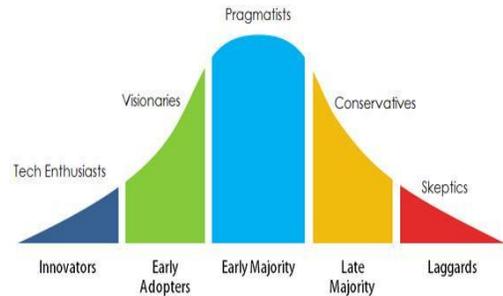
New Resource List

To help teachers select appropriate digital literacy tools, the program reduced and edited their resource list. The work group selected their top ten list of tools and annotated them. To encourage buy-in, the director and technology coordinator asked specific staff members to research and report on these tools. Over the course of the year, ten new tools will be presented to staff by their peers and added to their teaching toolbox.

Finally, a designated a portion of each staff meeting has been set aside for addressing digital literacy. Staff revisits the WIOA definition of digital literacy and illustrates how aspects of the definition can be brought to life in the classroom.

This graphic illustrates a spectrum of responses to adopting technology.

Lessons Learned

Understanding teacher resistance has helped the program director develop a reasonable plan for helping teachers expand their digital literacy skills. By removing the mystery around digital literacy, the program has successfully moved forward and now incorporates more digital literacy into teaching. While not all teachers embraced digital integration, they are hopeful that ongoing teacher support, the use of a more targeted list of digital tools, and the continuation of a digital literacy working group will help encourage curiosity and mitigate resistance.

Resources

"Ten Reasons Your Educators are Resisting Your Change Initiative"
http://blogs.edweek.org/edweek/LeaderTalk/2011/05/10_reasons_your_educators_are.html

Digital Resources

This selected list of resources is organized by theme. Teachers and program directors are encouraged to expand, personalize, and update the list to increase its relevance to individual program needs.

Assessment of Digital Literacy Skills

North Star Basic Computer Skills Assessment - www.digitalliteracyassessment.org/
The Northstar Digital Literacy Project defines and assesses basic skills needed to perform tasks on computers and online. After successfully completing various assessments, people can obtain a Northstar Digital Literacy Certificate, which can serve as a credential for employment. There is no cost to complete the assessment modules.

Access to Technology

EveryoneOn - everyoneon.org/adulted
EveryoneOn is a national nonprofit organization whose work focuses on increasing access to free and low-cost Internet service and free digital literacy courses. Through EveryoneOn, adult educators can purchase low-cost Internet access that enables them to use Wi-Fi hotspots for their classrooms.

Professional Development for Teachers and Administrators

LINCS - lincs.ed.gov/
LINCS offers archived webinars, community of practices and online courses for adult education practitioners.

Digital Promise - digitalpromise.org/
Digital Promise works to improve digital learning opportunities for low-skilled, under-served adults in the United States. Click "Adult Learning" under their drop down menu for 'Our Work.'

Blended Learning for the Adult Education Classroom
http://app.essentialed.com/resources/blended-learning-teachers-guide-web.pdf
This free, downloadable step-by-step guide is intended to help teachers and administrators in adult education programs explore approaches to integrating blended learning into their classroom methodology.

Tech Tips for Teachers - http://edtech.worlded.org/blog/
This World Education blog offers a menu of practical lessons, including topics such as: mobile writing, using Google Docs, and using discussion boards in the classroom.

Common Online Learning Management Systems (LMS)

Blackboard - www.blackboard.com
Blackboard is a learning management system (LMS) that allows for online communication among students and between students and instructor. Blackboard is a common choice for college classes.

Edmodo - https://www.edmodo.com/
Edmodo is a web-based platform similar to Facebook where teachers can post assignments and students can upload documents to share. Unlike Facebook, Edmodo is a closed environment where the teacher approves and enrolls students.

Moodle - moodle.org/
Moodle is a learning platform or course management system (CMS)—a free open source software package designed to help educators create effective online learning communities. It is often used for college courses or blended learning.

Easy Web Templates

WIX - www.wix.com/
Wix is a drag and drop website builder. Teachers can choose a template and insert content to build an interactive website with and for students. It is not necessary to know computer code to use Wix.

WEEBLY - www.weebly.com
Weebly is another drag and drop website builder that offers a wide variety of pre-designed templates. It also offers hosting services.

Organizations

Tech Goes Home (TGH) - www.techgoeshome.org
TGH Community provides teacher training to help adult educators integrate digital literacy skills into their programs. When participants complete TGH training, they can purchase a new computer for $50 and receive assistance in obtaining low-cost Internet access.

Classroom/Program Resources

Integrating Digital Literacy into English Language Instruction: Companion Learning Resource
http://lincs.ed.gov/sites/default/files/LINCS_CLR-2_508.pdf
This resource has examples of strategies, tools, and lesson ideas that support the development of digital literacy skills within the context of English language instruction.

Khan Academy - www.khanacademy.org
Khan Academy offers practice exercises, instructional videos, and a personalized learning dashboard that allows learners to study at their own pace. Site includes math, science, U.S. history, world history, and grammar.

Open Educational Resources (OER): Resource Roundup
www.edutopia.org/open-educational-resources-guide
An educator's guide to open educational resources for information about online repositories, curriculum-sharing websites, sources for lesson plans and activities, and open alternatives to textbooks.

Real World MATH - www.realworldmath.org/
Real World Math is a collection of free math activities for Google Earth designed for students and educators.

Tune in to Learning - http://www.tv411.org/
This site offers short videos to teach aspects of reading, writing, vocabulary, science, math, and finance.

Tune in to Learning - www.tv411.org/reading/ or www.tv411.org/writing
This thoughtful, expansive site offers videos to introduce a variety of reading/writing skills—from understanding information on medicine labels and leases to critically analyzing campaign posters. This site is aligned with CCRSAE in many ways, including videos on restating a poem, "reading" art, and reading for work.

Glossary

21st Century Skills – refers to a broad set of knowledge, skills, work habits, and character traits that are believed by educators and employers to be critically important to success in college and career settings.

Address bar - An **address bar** (also location **bar** or URL **bar**) is a feature in a web browser that shows the current URL and accepts a typed URL that navigates the user to a chosen website.

Application - a computer program that is written and designed for a specific need or purpose.

Bandwidth-Bandwidth describes the maximum data transfer rate of a network or Internet connection. It measures how much data can be sent over a specific connection in a given amount of time.

Digital Footprint - digital footprint is a trail of data created while using the Internet. In includes the websites visited, emails sent, and information submitted to online services.

Format - The term "format" has several meanings, related to 1) disk formatting, 2) page formatting, and 3) file formats.

Google Drive - Google Drive is a service offered by Google that allows one to store and share files online. The goal of Google Drive is to provide a central place to store files online so that one can access them from anywhere. The web-based Google Docs application is used to create or edit documents online.

Hardware - Computer hardware refers to the physical parts of a computer and related devices. Internal hardware devices include motherboards, hard drives, and RAM. External hardware devices include monitors, keyboards, mice, printers, and scanners.

Internet Service Provider (ISP) - An ISP provides access to the Internet. Whether at home or work, each time you connect to the Internet, the connection is routed through an ISP.

IP Address - An IP address, or simply an "IP," is a unique address that identifies a device on the Internet or a local network.

Link - When you are browsing the Web and you see a highlighted and underlined word or phrase on a page, there is a good chance you are looking at a link. By clicking on a link, you can "jump" to a new Web page or a completely different Web site.

Menu Bar - A menu bar is a user interface element that contains selectable commands and options for a specific program.

Navigation Bar - A navigation bar is a <u>user interface</u> element within a <u>webpage</u> that contains links to other sections of the <u>website</u>.

Netiquette - Netiquette, or net etiquette, refers to etiquette on the Internet. Good netiquette involves respecting others' privacy and not doing anything online that will annoy or frustrate other people.

Operating System - An operating system, or "OS," is <u>software</u> that communicates with the <u>hardware</u> and allows other <u>programs</u> to run.

Platform - In the computer world, a "platform" typically refers to a computer's operating system.

Resolution – Refers to the sharpness and clarity of an image. The term is most often used to describe monitors and printers.

Server - A server is a <u>computer</u> that provides <u>data</u> to other computers. It may serve data to systems on a local area network (<u>LAN</u>) or a wide area network (<u>WAN</u>) over the Internet.

Storyboard – is a graphic organizer in the form of illustrations or images displayed in sequence for the purpose or visualizing a movie, animation, motion graphic or interactive media sequence.

Software - Computer software is a general term that describes computer programs. Related terms such as software programs, applications, scripts, and instruction sets all fall under the category of computer software.

URL - Stands for "Uniform Resource Locator." A URL is the address of a specific <u>webpage</u> or <u>file</u> on the Internet.

Web Browser-A web browser, or simply "browser," is an <u>application</u> used to access and view <u>websites</u>. Common web browsers include Microsoft Internet Explorer, Google Chrome, Mozilla Firefox, and Apple Safari.

Web Page - A web page (or webpage) is a web document that is suitable for the World Wide Web and the web browser. A web browser displays a web page on a monitor or mobile device.

Appendix A to Digital Literacy Guidebook – Sample Competencies and Related Skills

Competency	Specific skills associated with competency
Displays understanding of basic digital literacy concepts and vocabulary	• Hardware, software, devices • Browser, applications, virus, links • Cloud storage
Displays Understanding of basic computer use	• Uses a mouse pad • Demonstrates beginning-level keyboarding skills • Uses basic toolbar and scrolling functions • Opens and closes applications on computer
Displays understanding of using a variety of technology tools to gain meaning from information	• Chooses and uses a variety of electronic searching tools e.g. databases, browsers, online references • Uses appropriate technology for listening, viewing, reading, and organizing activities
Displays basic understanding of social media	• Recognizes consequences of public accounts (Facebook etc.) • Chooses appropriate privacy settings for social media account
Searches for and locates information and resources online	• Chooses a browser • Displays understanding of browser tool bar buttons • Displays understanding of URLs and links • Displays basic navigation skills (selecting tabs, following links)
Displays deeper understanding of computer functions and use	• Manages multiple windows • Manages files
Manages stored information effectively	• Recognizes need for backing up information and files • Evaluates benefits of using cloud-type storage systems vs./or in addition to external hard drives
Considers safety, privacy, appropriateness and digital footprint before using digital tools	• Follows copyright guidelines • Creates strong passwords when creating online accounts
Creates products and content using digital tools and software	• Uses world processing to draft, revise, and edit a piece of text in response to academic assignments • Displays understanding of plagiarism and need for citations • Uses word processing and templates to create a resume and cover letters

U.S. DEPARTMENT OF EDUCATION
OFFICE OF CAREER, TECHNICAL, AND ADULT EDUCATION

WORKFORCE INNOVATION AND OPPORTUNITY ACT

ESSENTIAL COMPONENTS OF READING

The Workforce Innovation and Opportunity Act (WOIA) focuses on the important role that strong basic skills play in adults' ability to attain a secondary school diploma, transition to postsecondary education and training, and secure employment. To this end, the law specifies that "the essential components of reading instruction" be incorporated into instruction; see the statutory definition in the text box below.

What are the essential components of reading?[1]

- **Alphabetics** (which includes phonemic awareness, phonics, and decoding) is the process readers use to identify words. Readers must rely on alphabetic knowledge and decoding skills to read unfamiliar words.
- **Fluency** is the ability to read with efficiency and ease (speed and accuracy). Without fluency, readers attend more to decoding than to understanding the meaning of what they are reading. When word and sentence reading are automatic and fluent, readers can concentrate more fully on understanding and connecting sentences and paragraphs, which enables them to create meaning from the text.
- **Vocabulary** is the body of words whose meanings a person knows and understands. Vocabulary knowledge—specifically, the depth, breadth, and flexibility of a person's knowledge about words—is a primary predictor of reading success.
- **Reading comprehension** is the process and product of understanding text, and requires a high level of metacognitive engagement with text.

> **Essential Components of Reading Instruction**
>
> The term "essential components of reading instruction" means explicit and systematic instruction in—
> (A) phonemic awareness;
> (B) phonics;
> (C) vocabulary development;
> (D) reading fluency, including oral reading skills; and
> (E) reading comprehension strategies.
>
> Pub. L. 113-128, July 2014, Title II, Sec. 203(8).

It is important to understand that none of the essential components of reading alone is sufficient. The learner must also be assessed and provided with appropriate instruction based on the results of their individual diagnostic and formative assessment. Reading components are the foundation of the ultimate goal of helping students learn from challenging, complex texts in postsecondary education and training and for lifelong learning.

State leadership. WIOA contains four required activities for states. One requirement is "the establishment or operation of high quality professional development programs to improve the instruction provided pursuant to local activities required under Section 231 (b), **including instruction incorporating the essential components of reading instruction** as such

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[1] Explanations drawn from National Research Council. (2012). Improving Adult Literacy: Developing reading and writing. A.M. Lesgold and M. Welch-Ross, Eds. Division of Behavioral and Social Sciences and Education. Washington, DC: The National Academies Press. Available at http://www.nap.edu/openbook.php?record_id=13468&page=3

components relate to adults…and dissemination of information about models and promising practices related to such programs."[2]

What states must consider in funding local adult education programs. WIOA lists thirteen considerations states must use when selecting providers including four that deal specifically with how such providers serve the instructional needs of individuals with low literacy. Eligible providers should demonstrate:

- the degree to which they are "responsive to …serving individuals in the community…who have low levels of literacy skills;"
- "past effectiveness of the eligible provider in improving the literacy of eligible individuals…especially with respect to eligible individuals who have low levels of literacy;"
- "whether the eligible provider's program…uses instructional practices that include the essential components of reading instruction;" and,
- "whether the eligible provider's activities…are based on the best practices derived from the most rigorous research available and appropriate…"[3]

National leadership. An allowable activity within the national leadership fund pertains to the improvement of reading instruction. The Department of Education may conduct activities that include "developing, improving, and identifying the most successful methods and techniques for addressing the education needs of adults, including instructional practices using the **essential components of reading instruction** based on the work of the *[Eunice Kennedy Shriver]* National Institute of Child Health and Human Development"[4] [emphasis added].

Reading Resources. OCTAE supports states in meeting these new WOIA requirements through the following resources:

- The **Strengthening States' Capacity to Scale Evidence-based Reading Instruction** (STAR) technical assistance project provides **professional development** in partnership with states.
- **Professional development** in teaching adults to read including self-access online courses, study circles, and
- in-person trainings is available through the LINCS Regional Professional Development Centers and Learning Portal.
- **Teaching materials, research, and discussion** on the essential components are available through the LINCS
- Resource Collection and online Community.

Additional Resources:

WIOA Resources are posted at:
www.ed.gov/AEFLA

For questions, please email:
AskAEFLA@ed.gov

Published March 24, 2015

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[2] Pub. L. 113-128, July 2014, Title II, Sec. 223(a)(1)(B).
[3] Pub. L. 113-128, July 2014, Title II, Sec. 231(e).
[4] Pub. L. 113-128, July 2014, Title II, Sec. 242(c)(2)(A).

Do You Have Math Anxiety? A Self Test

Rate your answers from 1 to 5. (1 = Disagree; 5 = Agree). Add them up and check your score.

	Disagree				Agree
1. I cringe when I have to go to math class.	1	2	3	4	5
2. I am uneasy about going to the board in a math class.	1	2	3	4	5
3. I am afraid to ask questions in math class.	1	2	3	4	5
4. I am always worried about being called on in math class.	1	2	3	4	5
5. I understand math now, but I worry that it's going to get really difficult soon.	1	2	3	4	5
6. I tend to zone out in math class.	1	2	3	4	5
7. I fear math tests more than any other kind.	1	2	3	4	5
8. I don't know how to study for math tests.	1	2	3	4	5
9. It's clear to me in math class, but when I go home it's like I was never there.	1	2	3	4	5
10. I'm afraid I won't be able to keep up with the rest of the class.	1	2	3	4	5

CHECK YOUR SCORE:

40-50   It is a sure thing. You have math anxiety.

30-39   No doubt! The thought of doing math still makes you uneasy.

20-29   Perhaps…..

10-19   Wow! Possibly a math major in the making!

Ten Ways to Reduce Math Anxiety

1. Overcome negative self-talk.

2. Ask questions.

3. Consider math a foreign language -- it must be practiced.

4. Don't rely on memorization to study mathematics.

5. READ your math text.

6. Study math according to <u>YOUR LEARNING STYLE</u>.

7. Get help the same day you don't understand.

8. Be relaxed and comfortable while studying math.

9. "TALK" mathematics.

10. Develop responsibility for your own successes and failures.

Math Anxiety Code of Responsibilities

1. I have the responsibility to attend all classes and do all homework as assigned.

2. I have the responsibility to recognize the rights of others to learn at their own pace.

3. I have the responsibility to seek extra help when necessary.

4. I have the responsibility to see the teacher during office hours or to schedule an appointment for assistance.

5. I have the responsibility to come to class prepared; homework finished and/or questions to ask.

6. I have the responsibility to speak up when I don't understand.

7. I have the responsibility to give math at least the same effort I give to other subjects.

8. I have the responsibility to begin my math study at my current skill level.

9. I am responsible for my attitudes about my abilities.

10. I have the responsibility to learn about instructors prior to registering for class.

11. I have the responsibility for learning and practicing relaxation skills.

12. I have the responsibility to act as a competent adult.

13. I have the responsibility to approach math with an open mind rather than fighting it.

14. I have the responsibility to be realistic about my goals and expectations.

Math Test Anxiety Reduction Checklist

I've reviewed and worked out lots of problems so I know my material out of context.

I know the format and content of my upcoming math exam.

I know how many questions will be on my exam and its duration.

I've given myself several practice exams.

On practice exams, I've noted areas of difficulty so I can strengthen them.

I've analyzed my past pattern of typical errors so I can alert to them on my exam.

I've gotten 7 to 8 hours of sleep in the days prior to the exam.

I've kept up a regular program of moderate exercise.

I've practiced relaxation exercise along with positive visualization in the days and the half-hour before the exam.

I've eaten a small meal of low-fat protein 1 to 2 hours before the exam and avoided too much caffeine.

I'll arrive at the exam on time and avoid talking with others.

Throughout the exam, I'll remain calm, relaxed, and positive, checking my breathing often.

I will say positive self-statements to myself and push away all disturbing or distracting thoughts.

I will write out all my formulas and key ideas on the top corner of my exam sheet before beginning the test.

I'll quickly read through the exam, note point values, and schedule my time accordingly.

I'll proceed comfortably throughout the exam, working first on the problems that come most easily to me.

I'll carefully read the directions to all problems and circle significant words to avoid misinterpretation.

After finishing the exam, I'll check my answers, proofread for omissions, and check for my typical errors.

I'll leave and reward myself for a job well done!

Math Study Skills Inventory

Rate your achievement of the following statements by placing a **3** for **almost always**, **2** for **sometimes**, and **1** for **almost never**. If you have **never even thought** about doing what the statement says, put a **0**.

Selecting a math class

_____ 1. I schedule my math class at a time when I am mentally sharp.

_____ 2. When I register for a math class, I choose the best instructor for me.

_____ 3. If I have a choice, I select a math class that meets 3 or 4 days a week instead of 1 or 2.

_____ 4. I schedule the next math class as soon as possible after I have completed the current course.

_____ 5. I am sure that I have signed up for the correct level math course.

Time and place for studying math

_____ 6. I study math every day.

_____ 7. I try to get my math homework immediately after math class.

_____ 8. I have a specific time to study math.

_____ 9. I have a specific place with few distractions to study math.

_____ 10. I get my math homework in the lab where I can get help.

_____ 11. I am careful to keep up to date with math homework.

_____ 12. I study math at least 8 to 10 hours a week.

Study strategies for math class

_____ 13. I read my textbook before I come to class.

_____ 14. If I have trouble understanding the text, I find an alternate text.

_____ 15. I take notes in math class.

_____ 16. I am careful to copy all the steps of math problems in my notes.

_____ 17. I ask questions when I am confused.

_____ 18. I go to the instructor or lab when I am confused.

_____ 19. I try to determine exactly when I got confused and exactly what confused me.

_____ 20. I review my notes and text before beginning homework.

_____ 21. I work problems until I understand them, not just until I get the right answer for homework.

_____ 22. I use flashcards for formulas and vocabulary.

_____ 23. I develop memory techniques to remember math concepts.

Math tests

_____ 24. I preview the test before I begin.

_____ 25. Before I begin the test, I make notes on things such as formulas that I might need.

_____ 26. I begin with the easy questions first.

_____ 27. I take the full amount of time allotted for the test.

_____ 28. I carefully check or rework as many problems that I have time to before I turn in my test.

_____ 29. When tests are returned, I keep a log of the types of mistakes I make on tests: concept errors, application

errors, or careless errors.

_____ 30. I keep up to date so that I don't have to cram the night before a test.

Anxiety

_____ 31. I believe that I can succeed in math class.
_____ 32. I have study partners in my math class.
_____ 33. I take practice tests.
_____ 34. I know several good relaxation techniques.

_____ **TOTAL SCORE**

Scoring:

Total the scores from all 34 statements.

If your score is 90 - 103, give yourself an **A**. You are using the study skills you need in order to be successful in math.

If your score is 80 - 89, give yourself a **B**. You are using good math study skills. Choose a few strategies to work on each day, and you are well on your way to an **A**.

If your score is 70 - 79, give yourself a **C**. Your study skills are average. If you want an **A**, choose one or two strategies in each category to work on until you are using most of the strategies described above.

If you score is below 70, you are probably having a difficult time in math class. Math may not be your trouble! More than likely, your main problem is the study strategies you are using (or not using). _Make_ yourself do the things on the list above.

How Math Is Different from Other Subjects

1. Math requires different study processes. In other courses, you learn and understand the material, but you seldom have to actually APPLY IT. You have to do the problems.

2. Math is a linear learning process. What is used one day is used the next, and so forth. (In history you can learn chapter 2 and not 3 and do OK on 4. In math, you must understand the material in chapter 1 before you go on to chapter 2.)

3. Math is much like a foreign language. It must be practiced EVERY DAY, and often the VOCABULARY is unfamiliar.

4. Math in the college atmosphere is different from math in high school. Instead of going to class every day, in college you go only 2 or 3 times a week. What took a year to learn in high school is now covered in only 15 or 16 weeks.

Exercise: Given the 4 differences above, make a list of specific study strategies you will use in studying math.

1.

2.

3.

4.

5.

6.

Suggestions for Studying Math

Reasons Why People Have Math Anxiety	1. People don't try to understand; they just memorize. 2. They are underprepared – MATH IS CUMULATIVE.
How to Study Math	1. Keep up – review notes after class. 2. Take good notes – put everything from the board on paper. 3. Read the text – if you don't understand, get help. 4. Get a study friend. 5. Have a set time to get math homework. Treat it as a scheduled class.
How to Study for Math Exams	1. Start at Day One – do homework. 2. Memorize formulas – use flashcards. 3. Rework problems that you missed on the homework.

Math is Problem Solving	1. Read the full question.
	2. Analyze and Compute.
	3. Given/Find/Need:
	    – what's given?
	    – what do I need to find?
	    – what do I need to do?
	4. Draw pictures – can simplify problem.
	5. Use a calculator – do calculations twice.
	6. Check your results – do the problem again another way.

Tips for Success in Math Class

1. Learn how to relax before tests are taken.

2. Use a good math note-taking system.

3. Spend as much time on math homework as needed.

4. Complete your most difficult homework assignments first. Usually, this means math homework.

5. Read ahead in the math textbook and prepare questions for the instructor.

6. For each chapter, prepare your own list of math vocabulary words.

7. Find a study buddy and set up group study times.

8. Develop practice tests and time yourself while taking them.

9. Read ahead in your textbook and make an informal outline.

10. For practice, do all the example problems in the text.

11. While doing homework, write down questions for the instructor/tutor.

12. Be aware of time allotted while taking a math test.

13. Make sure you attend every math class.

14. Schedule a study period after your math class.

15. Verbalize (silently) problems the instructor writes on the board. Solve the problem or silently verbalize each solution step.

16. Meet instructors before actually signing up for the class. Compare your learning style to their instructional style.

17. Make note cards to remind yourself how to solve various types of math problems.

18. Get help early in the semester before you get too lost in course.

19. Take full advantage of all the helpful resources in the math lab.

20. For understanding, recite back the materials you have read in the math textbook.

21. Take notes on how to solve difficult problems.

22. Copy all information that is written on the board.

23. Do math homework every day.

24. If you miss a class, ask your instructors for permission to attend the same course that is taught at a different time or day.
    Remember: You are held responsible for material covered in classes that you have missed.

Test Anxiety Inventory

Read each statement carefully. If the statement reflects your experience in taking a test, place a check (√) before that statement. Check as many statements as apply to you. Check a statement if you can see yourself in such a situation or thinking those thoughts. Be totally honest with yourself.

_____ 1. I wish there were some way to succeed without taking tests.

_____ 2. Getting a good score on one test does not seem to increase my confidence on other tests.

_____ 3. People (family, friends, etc.) are counting on me to do well.

_____ 4. During a test I sometimes find myself having trains of thought that have nothing to do with the test.

_____ 5. I do not enjoy eating before or after an important test.

_____ 6. I have always dreaded courses in which the teacher has the habit of giving "pop" quizzes.

_____ 7. It seems to me that test sessions should not be made the formal, tense situations they are.

_____ 8. People who do well on tests generally end up in better positions in life.

_____ 9. Before or during an important exam, I find myself thinking of how much brighter some of the other test takers are than I am.

_____ 10. Even though I don't always think about it, I am concerned about how others will view me if I do poorly.

_____ 11. Worrying about how well I will do interferes with my preparation and performance on tests.

_____ 12. Having to face an important test disturbs my sleep.

_____ 13. I cannot stand to have people walking around watching me while I take a test.

_____ 14. If exams could be done away with, I think I would actually learn more from my courses.

_____ 15. Knowing that my future depends in part on doing well on tests upsets me.

_____ 16. I know I could outscore most people if I could just "get myself together."

_____ 17. People will question my ability if I do poorly.

_____ 18. I never seem to be fully prepared to take tests.

_____ 19. I cannot relax physically before a test.

_____ 20. I mentally freeze up on important tests.

_____ 21. Room noises (those coming from lights, heating/cooling systems, other test takers, etc.) bother me.

_____ 22. I have a hollow, uneasy feeling before taking a test.

_____ 23. Tests make me wonder if I will ever reach my goals.

_____ 24. Tests do not really show how much a person knows.

_____ 25. If I score low, I am not going to tell anyone exactly what my score was.

_____ 26. I often feel the need to cram before a test.

_____ 27. My stomach becomes upset before important tests.

_____ 28. I seem to defeat myself (think negative thoughts) sometimes while working on an important test.

_____ 29. I start feeling very anxious or uneasy just before getting test results.

_____ 30. I wish I could get into a vocation that does not require tests for entrance.

_____ 31. If I do not do well on this test, I guess it will mean I am not as smart as I thought I was.

_____ 32. If my score is low, my parents will be very disappointed.

_____ 33. My anxiety about tests makes me want to avoid preparing fully, and this just makes me more nervous.

_____ 34. I often find my fingers tapping or my legs jiggling while I am taking a test.

_____ 35. After taking a test, I often feel I could have done better than I actually did.

_____ 36. When taking a test, my emotional feelings interfere with my concentration.

_____ 37. The harder I work on some test items, the more confused I get.

_____ 38. Aside from what others may think of me, I am concerned about my own opinion of myself if I do poorly.

_____ 39. My muscles tense up in certain areas of my body when I take a test.

_____ 40. I do not feel confident and mentally relaxed before a test.

_____ 41. My friends will be disappointed in me if my score is low.

_____ 42. One of my problems is in not knowing exactly when I am prepared for a test.

_____ 43. I often feel physically panicky when I have to take a really important test.

_____ 44. I wish test evaluators could recognize that some individuals are more nervous than others in taking tests, and that this fact could be taken into account when test results are evaluated.

_____ 45. I would rather write a paper than take a test for a grade.

_____ 46. I am going to find out how others did before I announce my score.

_____ 47. Some people I know will be amused if I score low, and this bothers me.

_____ 48. I think I would do much better on tests if I could take them alone and/or not feel pressured by a time limit.

_____ 49. My test performance is directly connected to my future success and security.

_____ 50. During tests I sometimes get so nervous I forget facts I really know.

Test Anxiety Analysis Chart

S O U R C E S	Concerns about how others will view you if you do poorly	
	Concerns arising from threats to your own self image	
	Concerns about your future security	
	Concerns about not being prepared	
E X P R E S S I O N S	Bodily reactions	
	Thought disruptions	
	General test anxiety	

Scoring:

Sources

Concerns about how others view you: 3, 10, 17, 25, 32, 41, 46, 47

Concerns about self-image: 2, 9, 16, 24, 31, 38, 40

Concerns about future security: 1, 8, 15, 23, 30, 49

Concerns about not being prepared: 6, 11, 18, 26, 33, 42

Examine the items within each source. Identify the one that you believe is the strongest aspect of this response.

(This is confronting the problem.)

Expressions

Bodily expressions: 5, 12, 19, 27, 34, 39, 43

Thought disruptions: 4, 13, 20, 21, 28, 35, 36, 37, 48, 50

General test anxiety: 7, 14, 22, 29, 44, 45

To overcome problems identified as bodily expressions, examine the nature of anxiety.

To overcome thought disruptions, concentrate on psychological preparedness.

To overcome general test anxiety, examine the problems identified above, and work on general confidence in a testing situation.