A language/learning disability (LLD) is a disorder that may affect the comprehension and use of spoken or written language as well as nonverbal language, such as eye contact and tone of speech in both adults and children. Most research, treatment, and support resources emphasize childhood LLD, but the problems do not disappear once a person has reached adulthood. Many people with LLD can use intelligence to cover their difficulties, but other adults need guidance, resources, and professional treatment by speech-language pathologists and others to assist them with their disability. This paper outlines some areas in which LLD problems are apparent and identifies some specific skill breakdown patterns. The paper also provides some resources and tips for adults with LLD, including suggestions about reviewing job descriptions when applying for employment. (SLD)
Introduction

A language/learning disability (LLD) is a disorder that may affect the comprehension and use of spoken or written language as well as nonverbal language, such as eye contact and tone of speech, in both adults and children. Characteristics of LLD vary, as does the severity of the disorder. Some people may have a mild problem, whereas others may demonstrate significant disabilities across many aspects of language. People with LLD may have social-pragmatic deficits, for instance, having trouble giving the listener a speaking turn or overusing certain forms of humor such as sarcasm. They may have difficulty with memory and maintaining attention. An individual may have trouble in all of these areas or in only some, with varying degrees of severity in different aspects of the condition. LLD can impact many different areas of life, not just education, and it is highly individualistic. It can also affect employment, social activities, personal relations, and self-esteem. With severe LLD, even the ability to live independently can be compromised.

Although most research, treatment, and support resources emphasize childhood LLD, the problems do not disappear once a person reaches adulthood. This disability can continue throughout a person's life, although some may not be aware of it. Many adults learn to compensate for their disability so successfully over time that even family members may not be aware that a disability still exists or ever did exist. In fact, many have noted the talents of LLD individuals. For instance, Norman Geswind, MD, a researcher in dyslexia, stated, "... if you have a simple method of preventing the existence of dyslexia, if we just put that into play tomorrow, society might be worse off because we might get rid of five million dyslexics and we might get rid of ten million highly talented people who are superb artists, metal smiths, engineers and so on." Because people with LLD tend to be intelligent, sometimes they use their intelligence to cover their difficulties, and their problems can go undetected. Other adults, however, have not learned to or cannot compensate and need guidance, resources, and professional treatment by speech-language pathologists and others to assist them with their disability.

Symptoms of Language/Learning Disability in Adults in Different Settings

School: LLD can affect math, reading, spelling, writing, listening, and explaining, making education a challenging and sometimes frustrating process. An ability to manage time for class work, projects, and studying often may be impaired by weak organization skills, resulting in incomplete projects that are incomplete or that fail to represent the person's knowledge and experience.

Employment: At work, LLD may pose problems in reading and writing. Spelling, grammar, and punctuation errors can make the person seem less capable than he really is. The worker may have trouble with planning, scheduling, organizing, and supervising, or maintaining attention and processing information. Difficulty expressing ideas orally and in writing can result in communication breakdowns and frustration.
Social Interactions and Personal Relations: Many individuals with LLD have communication failures in social interactions. Sometimes they are not even aware that any failure has occurred. Forming and maintaining friendships and long-term relationships can be challenging for a person with LLD. Initiating and maintaining conversations can also be problematic; for instance, individuals may interrupt frequently, or they may have difficulty maintaining the topic or transitioning to the next topic. When conversing with others, a person with LLD may misinterpret the speaker’s message. For example, they may have trouble understanding humor or non-literal language.

Attempts to accurately express and understand emotions through words may not represent the emotion being felt. Inappropriate eye contact, proximity, tonal quality, or vocal intensity can complicate social exchanges. These issues work both ways in authority relationships, affecting supervisors and supervisees alike. People with certain types of LLD may use formal speech patterns that sound like lecturing, both in tonal quality and the length of their monologues. The listener may be unsure of how to respond to this type of speech pattern.

Self-Esteem: When a person has communication difficulty at school, in her job, or social situations, self-esteem may erode. She may have low confidence, feeling teased, criticized, or rejected. Misinterpreting the intention of others can be discouraging. Weak self-esteem can result in failure to advocate for wants or needs. The person with LLD may sense that he is not able to do what others can because it is too challenging and can become frustrated.

Independent Living: Living independently requires prioritizing and sequencing activities that involve time, space, quantity, and proximity. Specific examples of challenges that people with LLD often face include paying bills on time, writing checks properly, recalling or dialing telephone numbers correctly, reading directions on medicine bottles, or understanding directions to a friend’s house. Household safety can be compromised by forgetting to turn off the oven, not blowing out candles, or not unplugging curling irons. It may be difficult to take messages accurately or to fill out forms correctly. Of course, most people have occasional difficulty with these examples, but to a lesser degree.

Specific Skill Breakdown Patterns
Reading: A person who reads too slowly or too quickly but does not understand what was read may be exhibiting affects of LLD. The need to re-read information in order to grasp meaning may also indicate such a disability. Oral reading problems can be detected when words are added or deleted or sounds are transposed, deleted, or added, resulting in stumbling on words while reading. A classic pattern seen in dyslexia is a discrepancy between coding (ability to pronounce the words) and comprehension of the text. A difference between coding and comprehension scores that is one or more standard deviation(s) (a unit of measurement often applied to indicate significance) may also indicate a problem.

Writing: Evidence of a disability can be seen in many aspects of writing. The person with LLD may struggle with pragmatic organization of writing stages, for instance, having trouble selecting, planning, or developing a topic. In the planning or prewriting stages, sequencing and prioritizing information in terms of main point(s) versus detail often is difficult. Spelling, punctuation, and grammar errors often are present. For instance, sentence units may lack appropriate punctuation and capitalization, leading to confusion about beginning and ending thoughts. Written documents, in general, tend to show weak grammar rules for case, number, gender, and tense. Meaning can be obscure for a variety of reasons, and the reader often encounters information gaps. Illegible or difficult-to-read handwriting sometimes is a problem for people with learning disabilities, which, fortunately, can at least partially be overcome with computer word processing. Once the language rule systems governing written language have been mastered, many people with LLD actually become effective journalists because their creativity has been released and
they are able to express ideas, feelings, and opinions in original ways.

**Math:** Struggle in mathematics often is seen in LLD. A person may have trouble recalling basic math facts from long-term memory or may confuse operational symbols when solving problems. Difficulty sequencing steps in a calculation or word problem leads to errors, sometimes with reversal in the intended operation, for instance, adding rather than subtracting. Trouble understanding and using mathematical vocabulary when problem solving also can lead to errors. Many have a difficult time translating words into the appropriate numbers or operational symbols needed to solve the problem. Difficulty remembering the step just completed or retaining the premise of the problem can reflect a short-term memory problem. Trouble aligning numbers on the page in order to accurately compute the problem can reveal a spatial organization vulnerability that also results in errors. In spite of this array of problems, many people with LLD have an innate sense of math logic and concepts that they can apply in hands-on projects.

**Organization:** Organization issues may appear in a number of areas for people with LLD. They may have difficulty managing time for appointments, deadlines, daily life activities, or even social events. They may fail to initiate tasks or have difficulty organizing information. Many have trouble taking notes in classes or meetings or able to categorizing information. Often they have trouble maintaining schedules, calendars, or day timers, resulting in missed appointments. Difficulty prioritizing time to meet deadlines or fulfill responsibilities is a frequent problem, especially when interest levels vary for different types of activities. Without careful planning, less-favored but important activities and responsibilities can be neglected. Family members and teachers often complain of excessive clutter and frequently lost items.

**Attention:** A lack of attention skills often is evident in people with LLD. They may be easily distracted, have difficulty maintaining concentration or attention, fidget, frequently move, or have trouble staying seated. Failure to notice important stimuli or drifting during lectures or conversations can have negative repercussions. Impulsivity also may be evident in conversations or decision-making. Most people with attention deficit disorder seek novel input and scan their environment for new information, which quickly becomes old information, resulting in a restless pursuit of ideas or activities that will satisfy their intellectual capacity. These individuals often say they are bored.

**Auditory Processing:** Difficulty processing information tends to be a primary feature of LLD, even though the condition is difficult to detect. Characteristics may be a delayed response time to questions, directions, or comments. During conversations a person may say Huh? or What? frequently or might ask for multiple repetitions of information, signaling that heard information is not registering. Some have particular difficulty processing information in the presence or absence of certain types of background noise. Auditory discrimination issues can be detected in word misperceptions, for instance, hearing van for fan.

**Spelling:** Spelling difficulty is a primary symptom of LLD. Errors may involve failure to represent all the sounds or syllables in words, or, all the sounds are represented, but the word still is misspelled. Either type of error can be due to weak phonologic perception, that is, “hearing” the sounds in oral and written words. Often the person cannot recall which letter(s) to use in spelling a specific word since English (and many other languages) use multiple letters to “spell” the same sound in different words.

**Understanding and Expressing Meaning:** Certain meaning relationships can be hard for a person with LLD to process or express. He may not quickly understand cause-effect relationships and be prone to taking risks because of this lack of or delayed processing. Decision-making may be impaired because other relationships are unclear, such as part/whole. For instance, not understanding the relationship between departments and the overall organization.
Decisions depending on understanding of conditional relationship can also break down. For instance, not meeting conditions a, b, and c before entering data. Or, confusion about temporal sequential relationships can affect independent living. When cooking, for instance, by not adding ingredients in the specified order. Comparison relationships also falter, such as not accurately comparing the importance of projects (prioritizing) and spending more time on less important projects.

Often people with language-learning disabilities say they have trouble expressing their ideas. They may use limited vocabularies because of word recall problems, even though they have extensive vocabularies. They may use short, simple sentences that are fragmented or grammatically incorrect or rambling ones that do not make the intended points. During storytelling, the listener may have trouble following the story because events are presented out of order or the main point is slighted while lesser details are presented. Subsequent attempts to correct the story may lead to further ambiguity.

Memory: Memory problems often accompany LLD. A person may have difficulty recalling the steps in directions, particularly oral directions. She may have trouble recalling names or numbers, remembering deadlines or due dates, and may lose things frequently. The short-term memory period includes the first several seconds after hearing information. Memory deficits in this time period result in inaccurate retention and, sometimes, total loss of what was said. Recent memory deficits affect recall of information heard recently, including instructions heard yesterday, information about a story heard last week, or recalling the events of the day. Long-term retrieval deficits result in trouble recalling information that has been stored as knowledge. Prospective memory deficits can lead to difficulty recalling current information to apply to future projects. The tandem plan/review, time-ordering of steps required to meet deadlines can break down because of vulnerability in prospective memory. The rotary cycle of planning future steps, then checking to see that activities are on course and making modifications to the original plan if necessary, often is a difficult process for the LLD person to maintain.

Resources and Tips for Adults with a Language/Learning Disability

Strengths and Weaknesses: Understanding strengths and weaknesses is an important goal for adults with LLD. Fortunately, the typical person with LLD has considerable strengths in given areas and at least average, and often above average, intelligence. It is important to understand which individual learning style best facilitates performance. Some people learn best through hands-on activities, others visual, and some through auditory presentation of information. Once aware of talents and interests, the person with LLD should seek out course offerings, career options, employment settings, and even recreational activities that match these talents. Strengths should be cultivated, allowing for further growth and success. Although these principles apply to most people, they are particularly important for people with LLD because they may not have diverse talent areas from which to select. Nonetheless, the talents that they do have often are exceptional.

Strategies: Research suggests that getting enough sleep, at least eight hours per night, also is necessary for memory, awareness, organization, and attention skills. Medication prescribed for LLD-related conditions must be taken consistently. Self-advocacy is particularly important because an adult with a disability may know best what is needed to make an education or job setting more manageable and how best to achieve necessary modifications. If accommodations are not offered, it may be necessary to seek them out and request them. Colleges and universities are increasingly aware of the needs of students with various learning disabilities, including language-based LDs. And, there are many organizations and resources for adults with LLD, including the National Association for Adults with Special Learning Needs, Job Accommodation Network, HEATH Resource Center, Equal Employment Opportunity Commission, and American
Association for Vocational and Instructional Materials. These resources can help to explain disability laws and accommodations in the classroom and workplace provide contact information regarding support groups, and instructional information and learning strategies for adults with LLD.

In the vocational or educational setting, use of a tape recorder during lectures or meetings may be helpful. Reviewing the tape immediately following the lecture to add missed information in the notes can strengthen comprehension of the lecture, which, in turn, improves recall. An increasing number of colleges and universities are successfully using speech-to-text computer programs that transcribe a professor's lecture into written notes for all the students.

Sitting near the speaker during a lecture or meeting but not so close that cues from others cannot be seen may also help. For instance, if the audience is directed to look at a handout and the person with LLD does not "hear" the direction, because he sees others opening the handout, he quickly adjusts his focus. Anchoring heard or read information to written documentation as soon as possible can further facilitate understanding and recall. Notes should focus on the essential points to be remembered later. Extra time to complete activities, projects, and exams is also frequently a warranted accommodation. And day timers or calendars to record project deadlines, tests, upcoming events, or appointments are useful prompts.

Additional organization strategies can be found in books in libraries and applied on a trial basis to determine which work best. **Study Skills: A Landmark School Teaching Guide**, Second Edition, by Joan Sedita, **Crash Course for Study Skills**, by Marty Soper, **125 Ways to Be a Better Student**, by Paula S. Currie et al., and **You Don't Outgrow It: Living with Learning Disabilities**, by Marnell L. Hayes, EdD., are just a few such resources.

Resources for students seeking colleges that can best accommodate LLD and satisfy their academic, curricular, and social preferences, programs and accommodations include **College Guide for Students with Learning Disabilities**, 14th Edition, by Annette Sclafani and Michael Lynch, **Colleges with Programs for Students with Learning Disabilities or Attention Deficits Disorders**, 6th Edition, by Charles Mangrum II, EdD, and Stephen Strichart, PhD, and **The K&W Guide to Colleges: For Students with Learning Disabilities or Attention Deficit Disorders**, 6th Edition, by Marybeth Kravets and Imy F. Wax. These volumes provide detailed information on colleges in the United States and Canada that provide more intensive services for students with language/learning disabilities. The number of staff devoted to special services, LD student organizations, policies, fees, counseling, contact information, and application information are all discussed within these resources.

Careful review of job descriptions is essential when applying for employment. It is appropriate to disclose a disability after the job has been offered if the individual can perform the work required for the particular job or position, even if reasonable accommodations are needed to perform the job requirements. If the job has been offered and accepted, the person with LLD should be prepared to describe strategies that could be used to meet job requirements. To be protected under the law, a person with LLD must self-identify the disability. Employers do not have to provide accommodations unless and until an employee declares having a disability and presents supporting documentation. Any further written documentation of job expectations and requirements beyond job description should be carefully reviewed with regard to any needed workplace adjustments.

Even adults should consider speech and language therapy to address problems in reading, writing, spelling, speaking, listening, memory, and organization. A person with LLD should consider seeing a psychologist or psychiatrist if intelligence levels are unclear or unknown or the emotional impact of LLD is adversely affecting daily life.
Summary
One aspect of LLD often affects other aspects causing areas of vulnerability and symptoms of LLD to overlap. For instance, it is more difficult to remember information that was not well understood when it was heard, just as it is more difficult to discriminate words if attention has drifted. Sometimes the overlap can make it difficult to identify which condition is present. Fortunately, the state of diagnosis has improved over the last decade so that deficit conditions are much better understood. In the near future, electronic images of the brain performing various tasks will likely reveal much more about brain function. Hopefully, such knowledge will promote perceptions of LLD as learning differences rather than disabilities.

Renee Comstock has over 7 years of experience in health care facilities, hospitals, and schools where she has conducted assessments, written plans of treatment, and provided remediation for a variety of communication disorders. Carol Kamara is the founding director of the Kamara Center for Language and Communication Disorders. She has worked with speech, language, and hearing impaired children and adults and their families for over 30 years.

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