

Learning & Psychological Disabilities Classroom Strategies

A Faculty Guide

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Contents

Introduction	1
Learning Disabilities	5
Overview	5
Common Accommodations for Learning Disabilities	6
Student Learning Strategies	6
Web Links	8
Psychological Disabilities	9
Anxiety Disorders	9
Common Accommodations for Anxiety Disorders	10
Student Learning Strategies	11
Web Links	11
Depression	13
Common Accommodations for Depression	15
Student Learning Strategies	15
Memory Tips	15
Concentration Tips	16
Web Links	17
Attention Deficit Disorder	19
Common Accommodations for ADD or ADHD	20
Student Learning Strategies	20
Attention to Lectures	20
Concentration	21
Organization	21
Web Links	21
Traumatic Brain Injury	23
Common Accommodations for TBI	24
Student Learning Strategies	24
Web Links	25
Teaching Strategies	27
Introduction	27
Learning Styles	27
Universal Instructional Design	27
Course Syllabus	31
Preparing the Syllabus	31
Checklist of Items to Include on Your Syllabus:	31
Lectures	33
Preparing and Delivering Your Lectures	33
Activities to Make Lectures Interactive	34
Assessing Student Knowledge	37

LAB Classes	39
<i>College and Community Resources</i>	41
College	41
Local	41
State	42
National	43
<i>Bibliography</i>	45
<i>Appendix A</i>	49
<i>Appendix B</i>	51
<i>Appendix C</i>	55
<i>Appendix D</i>	57

During the past ten years, colleges across the country have experienced an increase in the number of students with learning disabilities and/or psychological disabilities. Many of these students have the opportunity to attend college due to a number of factors:

- Equal rights to education as delineated in the Americans with Disability Act (ADA).
- A better understanding of specific learning disabilities and appropriate accommodations.
- Advances in medications and therapies, which allow people with psychological disabilities to function at higher levels.

People with learning disabilities or psychological disabilities are often uncomfortable disclosing their disability for fear that they may be stigmatized. Unfortunately, this lack of disclosure may lead to students doing poorly or dropping out of school all together. If the student discloses the disability, we have the opportunity (and the legal obligation) to help “level the playing field” by providing accommodations. The College is responsible for ensuring that the provisions of the ADA are followed and reasonable accommodations are provided. (See Appendix A).

These accommodations do not require an instructor to “water down” the course content, but instead, apply accommodations to minimize the effects of the disability without a change to the curriculum per se. With appropriate accommodations, a student can demonstrate what he or she knows about the subject.

To better understand what a student with a disability faces, we have compiled a brief review of some of the more common learning and psychological disabilities and possible accommodations that may be essential to their success and learning. For information on other psychological disabilities see Appendix B.

When a student discloses that he or she has a disability, the faculty may want to personally introduce the student to the Coordinator of Disability Services on campus. The following outlines some of the responsibilities of the Student, Coordinator, and the faculty.

Responsibilities of the Student

- Notify the Disability Coordinator early that he/she has a disability that may affect learning and success in college.
- Provide documentation of the disability to the Disability Office.
- Make timely arrangements for accommodations by meeting with the Disability Coordinator prior to each semester.
- Follow through with accommodations consistently.

Responsibilities of the Disability Services Coordinator

- Determine if a student is eligible to receive reasonable accommodations/modifications and or other support services.
- Obtain documentation from the appropriate professional verifying the disability. This is the required proof of eligibility.
- Respect individual confidentiality and maintain professional standards.
- Provide the least invasive, appropriate accommodations in classroom and for test taking.
- Assist students in obtaining access to specific support services, such as tutoring and counseling.
- Notify the instructor about the necessary accommodations and/or modifications in writing as soon as possible and discuss the implementation of accommodations as needed.
- Provide support to the faculty member/s for the directive.

- Provide education to faculty and staff regarding campus commitment to implementing law and policy which assures non-discrimination of people with disabilities.

Responsibilities of Faculty

- Follow the prescribed accommodations/modifications in a fair, non-judgmental and timely manner.
- Maintain the student's right to privacy concerning the disability and any accommodations.
- Provide timely access to course materials (at the same time all other students receive the materials).
- Communicate with the Coordinator of Disability Services any questions or problems with implementing the accommodations.

Overview

According to The National Center for Learning Disabilities (2004), a learning disability (LD) is a neurological disorder that affects the brain's ability to receive, process, store, and respond to information. The term learning disability is used to describe the seeming unexplained difficulty a person of at least average intelligence has in acquiring basic academic skills. These skills are essential for success at school and work, and for coping with life in general.

LD is not a single disorder. It is a term that refers to a group of disorders. Learning disabilities can affect a person's abilities in one or more of the following areas:

- Oral expression
- Listening comprehension
- Written expression
- Basic reading skill
- Reading comprehension
- Mathematics calculations
- Mathematics reasoning

Other elements of learning disabilities are:

- A distinct gap between the level of achievement that is expected and what is actually being achieved.
- Difficulties with socio-emotional skills and behavior.

A learning disability is not a disease, so there is no cure, but there are ways to overcome the challenges it poses through identification and accommodation.

Examples of a specific learning disability include:

- Dyslexia -- difficulty with reading, writing, and spelling.
- Dyscalculia -- difficulty with math functions and using numbers.
- Dysgraphia -- difficulty with psychomotor skills needed for writing.

- Auditory Processing Disorder -- difficulty interpreting auditory information.
- Expressive Language Disorder -- difficulty expressing self in language.

Common Accommodations for Learning Disabilities

Accommodations are made on an individual basis depending on the student's diagnosis and the treatment they are receiving. Typical accommodations, based on the nature of the learning areas affected are:

- Extended time for testing and assignments.
- Testing in a separate area.
- Note taker.
- Scribe.
- Reader.
- Audio textbooks.
- Audio tape lectures.

Student Learning Strategies

The following suggestions may be helpful for students with Learning Disabilities:

- Seek support from the college's Disability Services Office for support and to set-up and provide accommodations as early as possible.
- Use a planner to stay organized. Record assignments and test dates in the planner.
- Try some of the following study tips that support specific functional areas (Virginia Adult Learning Resource Center, 2001):
 - Reading
 - Underline or highlight important ideas for later review.
 - Read the chapter summary or end of chapter questions before starting the chapter.

- Use notes or symbols within the text to identify key information and note areas needing clarification.
- After reading two or three paragraphs, stop to check for understanding; re-read if necessary, paraphrase the information.
- Use scan-and-read software, or read aloud and record on audiotape.

- Writing
 - Use word processing software to help with organizing, editing and spell checking.
 - Make use of an electronic dictionary and thesaurus.
 - Use a tape recorder to study spelling: read and spell the word onto the tape, write the word, and replay the tape to check spelling.

- Math
 - Use a calculator when applicable.
 - Make use of cue sheets-steps to follow, formulas etc.
 - Read word problems aloud and think out loud when solving.
 - Schedule time to study with a peer or tutor.

- Listening
 - Look at the speaker, take notes, ask questions
 - Use a tape recorder to record lectures and instructions.

- Speaking
 - Use cue sheets or notes to prepare; time management is important.
 - Practice speaking ahead of time; use a mirror, videotape, or ask a family member or close friend to listen.

Web Links

Excellent online resources for learning disabilities at all age levels:

www.ldonline.org .

For more information on learning resources for adults, check out the Virginia Adult Learning Resource Center LD Guide:

www.aelweb.vcu.edu/publications/LDGuide/index.htm

For more web links and references about learning disabilities:

www.aelweb.vcu.edu/publications/LDGuide/Sec17/References.htm

Division of adult studies at the University of Kansas

<http://das.kucrl.org/>

Time management/Study habits from the student handbook at Arizona State University.

www.asu.edu/drs/timeManagement.html

www.asu.edu/drs/studyhabits.html

Resources index from the Learning Disabilities Association of America website.

www.ldanatl.org/Resource.html

Enjoy the ride with this hands-on interactive format and catch a glimpse into the various disabilities. Follow the link below and use the ID noted.

www.aa.psu.edu/flash/

college ID is: levelfield

skip the user ID

Click on "In Their Shoes" (flash presentation)

Anxiety Disorders

Anxiety disorders may develop from a complex set of risk factors, including genetics, brain chemistry, personality, and life events. According to the Anxiety Disorders Association of America (2003), anxiety disorders are categorized as:

- **Generalized Anxiety Disorder (GAD)** GAD is characterized by excessive, unrealistic worry that lasts six months or more. In adults, the anxiety may focus on issues such as health, money, relationships, or career. In addition to chronic worry, GAD symptoms include trembling, muscular aches, insomnia, abdominal upsets, dizziness, and irritability.
- **Obsessive-Compulsive Disorder (OCD)** In OCD, individuals are plagued by persistent, recurring thoughts (obsessions) that reflect exaggerated anxiety or fears. Typical obsessions include worry about being contaminated or fears of behaving improperly or acting violently. The obsessions may lead an individual to perform a ritual or routine (compulsions) such as repetitive counting or hand washing.
- **Panic Disorder** People with panic disorder suffer severe attacks of panic-which may make them feel like they are having a heart attack or are “going crazy” for no apparent reason. Symptoms include heart palpitations, chest pain or discomfort, sweating, trembling, tingling sensations, feeling of choking, fear of dying, fear of losing control, and feelings of unreality. Panic disorder often occurs with agoraphobia, in which people are afraid of having a panic attack in a place from which escape would be difficult, so they avoid these places.
- **Post-Traumatic Stress Disorder (PTSD)** PTSD can follow an exposure to a traumatic event such as a sexual or physical assault, witnessing a death, the unexpected death of a loved one, or natural disaster. There are three main symptoms associated with PTSD: 1. "reliving" the traumatic event (such as flashbacks and nightmares); 2. avoidance behaviors (such as avoiding places related to the trauma) and emotional numbing (detachment from others); and 3. physiological arousal such as difficulty sleeping, irritability or poor concentration.

- **Social Anxiety Disorder (Social Phobia).** Social Anxiety Disorder is characterized by extreme anxiety about being judged by others or behaving in a way that might cause embarrassment or ridicule. This intense anxiety may lead to avoidance behavior. Physical symptoms associated with this disorder include heart palpitations, faintness, blushing and profuse sweating.
- **Specific phobias.** People with specific phobias suffer from an intense fear reaction to a specific object or situation (such as spiders, dogs, or heights); the level of fear is usually inappropriate to the situation, and is recognized by the sufferer as being irrational. This inordinate fear can lead to the avoidance of common, everyday situations.

Common Accommodations for Anxiety Disorders

Accommodations are made on an individual basis depending on the student's diagnosis and the treatment they are receiving. However, the following are typical accommodations:

- Extended time for testing and assignments.
- Testing in a separate area.
- Reserved seating in the classroom.
- Allowing the "anxious" student to leave the classroom.

Student Learning Strategies

- Seek the support of the college's Disability Services office for support and to set-up and provide accommodations as early as possible.
- Seek some type of therapy; this could include individual therapy or cognitive-behavioral treatment or a combination of both. (Center for Mental Health in Schools, 1999).
- Learn deep breathing techniques to control the anxiety and other relaxation methods to keep the anxiety in check.
- Learn the skills that will help you cope with your anxiety. This includes identifying the "trigger" that starts the anxiety. (Tucker-Ladd).

Web Links

To learn about different forms of anxiety and for other general information connect with *Anxiety Disorders of America*:

www.adaa.org/AnxietyDisorderInfor/OverviewAnxDis.cfm

Search for mental health professionals in your community at:

www.mentalhealth.net.

Self-help mental health program at:

www.recovery-inc.com.

Information and help for Social Anxiety, Panic and Generalized Anxiety at:

www.anxietynetwork.com.

Purchase books and tapes on reducing stress at:

www.stressrelease.com.

According to the National Institute of Mental Health (1996), depression is a disorder that involves the body, mood, and thought. It affects the way a person eats and sleeps, the way one feels about oneself, and the way one thinks about things. People who have depression cannot will themselves better or “pull themselves together.” Without treatment, symptoms can last for weeks, months, or years. Appropriate treatment, however, can help most people who suffer from depression. At least 80% of those getting treatment will get better.

Current research indicates a dramatic increase in the number of college students with mental health problems, such as stress/anxiety, depression, grief and academic and developmental problems. (Benton, 2003). With one in five people experiencing depression at some time during their lifetime, it ranks as one of the most common disorders. Some types of depression run in families, however, it can also occur in people who have no family history of depression.

There are several different forms of depression with each having variations ranging from mild to severe.

- **Major depression** interferes with the ability to work, study, sleep, eat and enjoy once pleasurable activities.
- **Dysthymia** is a form of depression that is less severe than major depression; however, it involves long-term, chronic symptoms that do not disable but keep one from functioning well or from feeling good.
- **Bipolar disorder**, also known as manic depression, is not as prevalent as the other forms of depression. Bipolar disorder is characterized by cycling mood changes: severe highs (mania) and lows (depression). Sometimes the mood switches are dramatic and rapid, but most often are gradual.
- **Seasonal Affective Disorder (SAD)** is associated with depressive episodes that occur during the winter months (especially in the northern climates), with symptoms subsiding during the spring and summer months. These depressive episodes are related to seasonal variations of light. The most difficult months for people with SAD are January and February.

Symptoms of Depression include:

- A persistent sad, anxious, or “empty” mood.
- Sleeping too little or sleeping too much.
- Reduced appetite and weight loss, or increased appetite and weight gain.
- Loss of interest or pleasure in activities once enjoyed.
- Restlessness or irritability.
- Persistent physical symptoms that don’t respond to treatment (such as headaches, chronic pain, or constipation and other digestive disorders).
- Difficulty concentrating, remembering, or making decisions.
- Fatigue or loss of energy.
- Feeling guilty, hopeless or worthless.
- Thoughts of death or suicide.

Symptoms of Mania include:

- Abnormal or excessive elation.
- Unusual irritability.
- Decreased need for sleep.
- Grandiose notions.
- Increased talking and energy.
- Racing thoughts.
- Increased sexual desire.
- Poor judgment.
- Inappropriate social behavior.

Untreated depression is the number one cause for **SUICIDE**. Any talk of suicide by a student needs to be taken seriously and help sought immediately. Express your concern to the student and make a referral to the college counselor, disability coordinator or their medical doctor, or call emergency 911.

If you or someone you know is contemplating suicide, call 1-800-SUICIDE (1-800-784-2433) or www.hopeline.com.

Common Accommodations for Depression

Accommodations are made on an individual basis depending on the student's diagnosis and the treatment he or she is receiving. Typical accommodations may include:

- Extended time for testing and assignments.
- Testing in a separate, distraction-free environment.

Student Learning Strategies

Memory and concentration issues are common concerns for students dealing with depression. It may be easy for them to get overwhelmed. If this happens, refer the student to the College Counselor or the Disability Coordinator who will help to resolve the situation. The student can try some of the following strategies:

- Meet with the Disability Coordinator before the semester begins to set up appropriate accommodations.
- Focus on one class at a time and break tasks into smaller parts; the student will make steady progress.
- If the student finds it difficult to get up in the morning or to have the motivation to complete course work, contact the College Counselor to set up a working plan.

Memory Tips

- Before lectures, look over the notes of the previous lecture and read the course material pertaining to the lecture topic.
- Schedule time to go over lecture material immediately after class. (Forgetting is greatest within 24 hours without review).
- Review the material for each course on a weekly schedule ... A study group is particularly helpful for this.
- Use all of your "senses" to learn material: listen to a lecture, write and recopy notes, read text and course materials, and explain the material to someone else.

Concentration Tips

- Examine the place of study and make adjustments...Check for
 - adequate lighting and ventilation.
 - a comfortable chair, but not too comfortable.
 - a desk large enough to spread out your materials.
- Avoid distractions in the study area, such as telephone, stereo or television.
- Study in an area that aids concentration. Consider the College's study areas, such as the library, student lounge, or an empty classroom.
- Establish a sense of purpose to studying. Decide what grade to work toward. Set up some rewards for yourself.
- When procrastinating, remind yourself why you are taking this course. Decide what action is necessary to reach your goal for the course.
- Create interest in the course material and make it relevant, by talking to others about the topics or by relating the material to something of interest.
- Remember that irregular sleep, exercise and eating patterns can cause concentration difficulties.
- Divide work into small, short range, mini-goals that can be achieved in the time scheduled. For example, finish reading three sections of Chapter 7 in the psychology text; or complete one math problem; or write the rough draft of the introduction to the English paper.
- Notice when you lose concentration and say to yourself "STOP" and then bring attention back. Each time it wanders, bring it back.
- Avoid mental fatigue by taking frequent breaks, at least 10 minutes for each hour of study.

Web Links

For more information on depression, symptoms, causes, how to help yourself, and where to get help:

www.nimh.nih.gov/publicat/depression.cfm.

Antidepressant medication for depression:

www.healthplace.com/communities/depression/treatment/antidepressants/index.asp.

Resources related to Dysthymia:

www.neuroscience.iningco.com/library/gl/bldyst.htm.

Symptoms and causes of Seasonal Affective Disorder:

www.nmha.org/infoctr/factsheets/27.cfm.

“College therapists say they’re seeing more kids asking for help.” *Newsweek* article (Oct.7, 2002):

www.healthplace.com/communities/depression/children article 3.asp.

“Bipolar Disorder in College Students.” Web article:

www.uwec.edu/counsel/pubs/bipolar.htm.

“Depression among college students rising.” Karen S. Peterson, USA TODAY, 5/21/02.

www.usatoday.com/news/health/mental/2002-05-22-college-depression.htm.

Suicide information and help:

www.hopeline.com.

Attention Deficit Disorder

Attention Deficit Disorder (ADD) is characterized by poor attention, impulsivity, disorganization, or restlessness. Students with Attention Deficit Hyperactivity Disorder (ADHD) may exhibit over-activity, be easily distracted, disorganized and have difficulty completing tasks. For this diagnosis, the behaviors must be present to an excessive degree, over time, and out of sync with normal age-related behavior.

Scientists have learned more about ADD/ADHD in recent years, according to the National Institute of Mental Health (1996), “They are now able to identify and treat children, adolescents, and adults who have it. A variety of medications, behavior-changing therapies, and educational options are already available to help people with ADHD focus their attention, build self-esteem and function in new ways.”

What is it like to have ADHD as an adult? Some people with ADHD describe a sense of frustration. “Since people with ADHD are often bright and creative, they often report feeling frustrated that they’re not living up to their potential. Many also feel restless and are easily bored. Some say they need to seek novelty and excitement to help channel the whirlwind in their minds. Although it may be impossible to document when these behaviors first started, most adults with ADHD can give examples of being inattentive, impulsive, overly active, impatient and disorganized most of their lives.” (National Institute of Mental Health).

At the college-level, students with ADHD often take on too much. They may take an overload of credits at the beginning of a semester, but later find that they have difficulty completing everything. Since organization and staying on task is a challenge for students with ADHD, they may want to consider taking fewer credits particularly for their first semester, as they understand how their symptoms affect their college success.

Once we understand ADHD, we can begin to look at the aspects that can be used in a positive way. For instance, “All people have natural talents and abilities. In fact, many people with ADHD feel that their patterns of behavior give them unique, often unrecognized, advantages. People with ADHD tend to be outgoing and ready for action. Because of their drive for excitement and stimulation, many become successful in business, sports, construction, and public speaking. Because of their ability to think about many things at once, many have won acclaim as artists, and inventors. Many choose work that gives them freedom to move around and release excess energy.” (National Institute of Mental Health).

Common Accommodations for ADD or ADHD

Accommodations are made on an individual basis depending on the student's diagnosis and the treatment they are receiving. However, the following are typical accommodations:

- Testing in a quiet area with few distractions.
- Extended time for testing.
- Note taker.
- Alternate testing formats (oral, essay vs. multiple choice).

Student Learning Strategies

Attentiveness, concentration and organization are the areas that college students with ADHD may want to enhance. The following strategies are worth trying.

Attention to Lectures

- Meet with the Disability Coordinator to set up appropriate accommodations.
- Before lectures, look over the notes of the previous lecture and read the course material pertaining to the lecture topic.
- Resist distractions by sitting in the front of the room and by focusing on the instructor by active listening and note taking.
- Show outward interest during lectures (attentive expression and posture); this will aid in self-motivating internal interest.
- When appropriate, ask a question, ask for clarity, or engage an instructor and the class in dialogue.
- Schedule time to go over lecture material immediately after class. (Forgetting is greatest within 24 hours without review).
- Schedule a weekly review for each course; Study groups are particularly helpful for this.

Concentration

- Study in an area that aids concentration. Consider the College's study areas, such as the library, student lounge, or an empty classroom.
- Establish a sense of purpose to studying. Decide what grade to work toward. Set up some rewards for yourself.
- When procrastinating, remind yourself why you are taking this course. Decide to do what is needed to reach your short term goal.
- Create interest in the course material and make it relevant, by talking to others about the topics or by relating the material to something of interest.

Organization

- Organize course materials. Bring notes from class and the text to class or study session.
- Use a three-ring notebook and organize all of the handouts and notes from class by topics or chapters.
- Work with a planner. Set up a to-do list for each class, and schedule test dates and assignment due dates.
- Turn in all assignments on time. Follow your planner every day.

Web Links

For more information on understanding ADHD, getting help, and finding sources of support go to:

www.nimh.nih.gov/publicat/adhd.cfm.

ADD/ADHD and adult education, including study tips:
<http://add.about.com>.

College students with ADHD: "Diagnosis and assessment of ADD in postsecondary students," an article by Kathleen O. Nadeau.

www.ahead.org/publications/JPED/jped11-2-b.html.

Teaching and Assessment Strategies for students with LD and ADD:
<http://student.admin.utas.edu.au/services/alda/options/edu/strat.htm>.

Traumatic Brain Injury

Traumatic brain injury is typically a consequence of an accident, but can also be caused from a stroke, lack of oxygen, poisoning, tumor, or an infection. At least 1.5 million people sustain traumatic brain injuries in this country every year. Students often display problems with attention deficit, memory and concentration.

The effects of the injury are highly individual depending on the area of the brain affected. They may experience frustration and anger often characterized by a quick temper. They typically exhibit discrepancies in abilities such as reading or spelling. Although there is great variation in the possible effects of a head injury for an individual, many students with TBI will exhibit some, but not all of them. However, most injuries result in some degree of difficulties in the following functions (Association on Higher Education and Disability--TRIO Training):

- **Memory** – The primary difficulty is the inability to store information for immediate recall. However, long-term memory or previously acquired knowledge is usually intact.
- **Cognitive/Perceptual Communication** – Students may have difficulty focusing for sufficient lengths of time for learning to take place. Attention and concentration may be influenced by medication, nutrition patterns, and fatigue resulting from disturbed sleep.
- **Speed of Thinking** -- It often takes the student longer to process information which influences reaction time, speed of response, and quickness of data integration.
- **Communication** – Language function (writing, reading, speaking, or listening) may be impaired. Problems in pragmatics may include interrupting, talking out of turn, dominating discussions, speaking too loudly or rudely, or standing too close to the listener. The student may have trouble comprehending written or spoken material especially under pressure such as during exams.
- **Spatial Reasoning** – Refers to the ability to recognize shapes of objects, judge distances accurately, navigate, read a map, visualize images, comprehend mechanical functions, or recognize position in space.
- **Conceptualization** – TBI often reduces the ability to categorize, sequence, abstract, prioritize and generalize information. The student may be very concrete and stimulus-bound.

In college students may need additional strategies to cope with new found frustrations. They may want to discuss this with the counseling or disability services offices.

These are important differences that affect the educational program of a student with TBI. In college, they may need:

- Established routines with step-by-step directions.
- Books and lectures on tape.
- Repetition or some type of reinforcement of information to be learned.

Common Accommodations for TBI

Accommodations are made on an individual basis depending on the student's diagnosis and the treatment they are receiving. However, the following are typical accommodations:

- Extended time for testing and assignments.
- Testing in a separate distraction-free environment.
- Audiotape textbooks and lectures.
- Text-to-speech computer programs.
- Alternate testing format (i.e. from an essay to a multiple choice format)
- Note taker (peer note taker or instructor provides notes).
- Scribe
- Scheduled breaks for every hour of class time. (10 minutes).

Student Learning Strategies

Students with TBI usually have problems with memory and organization. They also may not realize their limitations. The following suggestions may be helpful.

- Seek the support of the college's Disability Services Office for support and to set-up and provide accommodations as early as possible.
- Work in pairs, teams or small groups in order to learn from others and participate socially.
- Break down large assignments into more manageable segments and work on small parts at one time.
- Use a planner to stay organized. Record dates for assignments and tests in the planner. Voice recorders may also help with memory.

- Have a buddy or mentor to contact for reminders and support.
- Try a think-aloud technique, cue cards and verbal reminders when studying and doing assignments.
- Work with a tutor to review the material and to help organize thoughts.

Web Links

For more information about TBI (Traumatic Brain Injury) go to the Brain Injury Association of Minnesota at:

www.braininjurymn.org

To learn more about a wide variety of topics related to brain injuries go the Brain Injury Resource Center at:

www.headinjury.com

For access to All Disability Links go to:

www.eskimo.com/~jlubin/disabled/all.htm

College faculty have an opportunity to make a special connection with students because they see them frequently in the classroom. If a student discloses that they have a disability, encourage them to discuss their learning needs with the Disability Coordinator. This information is considered private data, at all levels, and the faculty must take care to respect the student and ensure confidentiality.

Instructors can build upon this connection by considering two instructional concepts that benefit the diverse needs of students in the classroom: Learning Styles and Universal Instructional Design. You can bring these concepts into actuality by infusing a variety of teaching strategies into the classroom.

Learning Styles

Each student has their own approach to learning, they intake and process information in their own way. There are three main learning styles:

1. **Auditory** -- these students learn best through verbal lectures, discussions, talking things through and listening to what others have to say.
2. **Visual** -- these students may think in pictures and learn best from visual displays including: diagrams, illustrated text books, overhead transparencies, videos, flipcharts and hand-outs.
3. **Tactile/Kinesthetic** -- these students learn best through a hands-on approach.

Universal Instructional Design

College faculty will notice that the strategies for teaching students with disabilities will benefit the diverse learning needs of all students in the classroom. With the focus on the needs of students with disabilities, we can actually create a more dynamic classroom for all.

A framework for Universal Instructional Design, developed by Shaw, Scott, McGuire (2002), consists of nine general principles to guide faculty in thinking about and developing instruction for a broad range of students. It is quoted here with some modifications:

1. **Equitable use** – designing instruction to be useful and accessible to students with varying abilities. It provides the same means of use for all students. For example: Using web-based courseware products with links to on-line resources so all students can access materials, regardless of varying academic preparation, distance from campus, etc.
2. **Flexibility in use** -- designing instruction to accommodate a wide range of individual abilities. It provides choice in methods of use. For example: Using varied instructional methods (lecture with a visual outline, group activities, use of stories, or web-based discussions) to support different ways of learning.
3. **Simple and intuitive instruction** – designing instruction in a straightforward and predictable manner, regardless of the student's experience, knowledge, language skills, or current concentration level. It eliminates unnecessary complexity. For example: Providing a grading scheme for papers or projects to clearly state performance expectations.
4. **Perceptible information** – designing instruction so that necessary information is communicated effectively, regardless of ambient conditions or the student's sensory abilities. For example: Selecting text books, reading material, and other supports in digital format so students with diverse needs can access materials through print or through technological supports (screen readers, text enlargers, etc).
5. **Tolerance for error** – instruction that anticipates variations in individual student learning pace and skills. For example: Structuring a long-term course project with the option of turning in individual project components separately for constructive feedback and for integration into the final product.
6. **Low physical effort** – designing instruction to minimize nonessential physical effort in order to allow maximum attention to learning. This does not apply when physical effort is integral to the essence of the course. For example: Allowing students to use a word processor for writing and editing papers or essay exams.
7. **Size and space for approach and use** – designing instruction with consideration for appropriate size and space for approach, reach, manipulations, and use regardless of a student's body size, posture, mobility, and communication needs. For example: Using a circular seating arrangement in small class settings to allow students to see and face speakers during discussion (especially helpful for students with attention problems).

8. **A community of learners** – the instructional environment promotes interaction and communication among students and between students and faculty. For example: Fostering communication among student in and out of class by structuring study and discussion groups, email lists, or chat rooms.
9. **Instructional climate** – designing instruction to be welcoming and inclusive. High expectations are held for all students. For example: Creating a statement on the syllabus affirming the need for students to respect diversity, underscoring the expectation of tolerance and encouraging students to discuss any special learning needs with the instructor.

What can you do to help a student with a disability succeed in your classroom? Try some of the suggestions in the following sections on **Teaching Strategies** and you may find that all of your students will benefit.

Note: Many of the suggestions in the next sections were compiled from the online resources detailed in the bibliography:

- Sandock, Beverly, (2003).
- Bailey, Eileen (2004).
- *Teaching Students with Learning Disabilities: A Faculty Guide*, (2004).
- Shaw, Stan F. (2001).
- *Teaching and Assessment Strategies* (1999).

Preparing the Syllabus

Students with early access to the course syllabus can order taped textbooks, if necessary, and balance their course load accordingly. Some need additional time to get started on the material for the course.

- Prepare prior to registration and make it available to students.
- Have it available to students online.
- Adhere to the syllabus as much as possible.
- Provide a revised copy of the syllabus if it is necessary to make changes during the course.

Checklist of Items to Include on Your Syllabus:

- ❑ State course goals and objectives.
- ❑ Specify exam and assignment dates.
- ❑ State office hours (and encourage students to use them).
- ❑ Detail assignments and papers for easy reference.
- ❑ Detail grading and evaluation methods.
- ❑ List course policies.
- ❑ Provide as much information about lecture topics as possible.
- ❑ Provide the ADA statement on the syllabus to encourage students with a documented disability to meet with the Disabilities Services Coordinator.

Preparing and Delivering Your Lectures

Since students have various learning styles, faculty could use a combination of delivery methods to enhance student learning and success for all students within the classroom. The following are some suggestions for presenting lecture material.

- Provide an outline with key concepts or vocabulary prior to lecture.
- Write key terms and technical vocabulary on board.
- Link previous lecture to current lecture.
- State class session objective.
- Give more than adequate amount of time for students to copy information from visual display or, better yet, provide a handout.
- Suggest use of tape recording.
- Make notes available on the Internet.
- Make lectures brief or break longer presentations into segments – (lecture, discussion, small groups - 15 minute intervals).
- Refer to page numbers throughout the lecture so students can refer back to the text.
- Encourage students to read the text prior to the lecture discussion.
- Move around the room.
- Summarize or draw conclusions at the end of the lecture.
- Keep oral instructions concise and reinforce with “cue words.”
- Repeat or reword complicated directions or provide a detailed handout of the directions.
- Assist students in finding a peer note-taker, if needed.

- Encourage students to make mental images of the concepts described.
- Use everyday life analogies and examples to make abstract information easier to understand.
- Leave time for questions.

Activities to Make Lectures Interactive

- **Skeleton notes** – Create a handout with key points of the lecture on the left margin, leave space for students to fill in notes during lecture. Pair up students to compare notes and fill in gaps.
- **Press Conference** -- Students work in teams to write and organize questions, and interview instructor in a simulated press conference.
- **Clusters** -- Break reading material into sections and have each group read individual sections, becoming an “expert” on their particular section, and then teach the other groups about the specific material.
- **Select the Best Response** -- Students are presented with a question or scenario and then asked to consider which one of three responses best answers it. This can be used to recall and apply information presented in lecture.
- **Correct the Error** -- This can be used in math courses or lab courses. The instructor creates an intentional error based on important lecture material conveyed. Students then need to work to correct the error.
- **Complete a Sentence Starter** -- Instructor creates a sentence stem that needs to be completed to reflect an accurate statement. This can be used as a quick assessment at the end of a lecture session.
- **Support a Statement** -- Instructor provides a statement for which students must locate support in lecture notes or textbooks, or elsewhere to give data and reasons to support statement.
- **Re-order steps** -- This would also be useful in lab courses or math courses. The instructor presents a series of steps in a mixed order and the students are asked to re-order the items into the correct sequence.

- **Framing Graphic** – This visual device promotes students' understanding and (recall) of the key topic, the main ideas presented, and the essential details described. The 4 major sections provide spaces for recording key information necessary for understanding the meaning of the key topic. The small circles that appear next to the boxes on the graphic can be used to prioritize the information or order the information in a particular sequence. (see Appendix C)

Assessing Student Knowledge

- Avoid overly complicated language in exam questions and clearly separate them in their spacing on the exam sheet.
- Avoid using answer sheets, especially computer forms. Permit students to record answers directly on test form.
- Allow students to write on exams. It may help the student to underline key words within the test questions.
- Use vocabulary on the test that has been previously used in the classroom.
- Grant time extensions on exams and written assignments when there are significant demands on reading and writing skills.
- Encourage study groups.
- Don't penalize student for spelling, organizational, or hand writing errors on timed examinations.
- Provide pre-reading questions for each reading assignment.
- Offer questions for study (study guide) that target important information as well as suggests possible format of test questions.
- Make wording of exam items concise and avoid "double negatives."
- Avoid testing on material just presented, as more time is generally required to assimilate new information for some students.
- Align all answer-choices on multiple-choice exams vertically, rather than horizontally. One line per answer-choice for each question.
- Permit the use of a dictionary, computer spell check, or a proofreader.
- In MATH, permit the use of calculators, as the student may understand the concept but may make errors by misaligning numbers or confusing mathematical symbols.

- Provide adequate time to complete the test, preferably the entire class session or at the end of the class session, when students will not have the added stress of holding up the class if they need more time. A rule of thumb is to allow time and a half for all students to take the test.
- Administer frequent, short quizzes (inform students of a quiz prior to the day of the quiz).
- Allow “take-home” quizzes.
- Assign group projects and presentations.

- Provide an individual orientation to the equipment to minimize anxiety.
- Label equipment, tools, and material.
- Assign cue cards or labels designating the steps of a procedure (this may expedite the mastering of a sequence).
- Make use of a “Teachable Moment” by obtaining the student’s permission to use their project/process **first** before sharing with the entire class.
- Use handouts outlining the procedures and the needed tools/supplies that they can follow to complete projects.
- Provide written documentation of project expectations.
- If possible, allow extra time to complete lab assignments. Encourage students to make use of any open lab hours. (*Perhaps an extension on the earlier projects will help the student to speed up by the end of the course.*).
- Partner students for assignments.
- Encourage students to look at other models of student’s work.
- Utilize “peer teaching.”
- Require “post assignment” explanations.
- Be aware of classroom design – Adjust the arrangement or layout of the room as needed.
- Encourage exploratory learning.

- Use specific computer programs to enhance learning, for example:
 - Camtasia – screen recording software used to demonstrate computer applications.
 - Net OP —The instructor can control the computer screens within the lab, allowing all the students to see the instructor’s screen, or another designated computer in the lab.
- Use a check list to assess mastery of project criteria. For a sample of a Quality Report — See Appendix D.

College and Community Resources

College

Disability Services Office at Pine Technical College (320) 629-5174
Gloria Baker, Director

http://www.ptcfaculty.org/~nweb/student_services/disability.html

The Disability Services Office at PTC is dedicated to ensuring that all students are given the opportunity to succeed. Our staff will work individually with you and determine the accommodations that may be necessary for your specific situation.

Counseling Services at Pine Technical College (320) 629-5135
Kathy Arola, Counselor

http://www.ptcfaculty.org/~nweb/student_services/counseling.html

The Counselor provides confidential counseling for personal, academic and career concerns, as well as, advocacy for students and referrals to other resources, as needed.

Local

Five County Mental Health Center Inc. (800) 523-3333

Provides counseling and testing services (including LD) on a sliding fee scale. Offices are located in Pine, Isanti, Mille Lacs, and Chisago counties.

St. Croix River Education District (320) 358-3616

Adult Basic Education information.

Rehabilitation Services

Minnesota Work Force Center, Cambridge, MN (800) 689-3250

For people with disabilities, this service provides assistance with finding appropriate employment, including educational and career planning.

WINDOW Victim Services (320) 384-7113

Email: window@ncis.com (800) 644-0003

For victims of family violence, sexual assault and other crimes.

State

National Alliance for the Mentally Ill – Minnesota (651) 645-2948
Email: nami-mn@nami.org toll free: (888) 473-0237
This organization provides information on mental illness and how to get help.

Minnesota Disability Resources on the WEB

<http://www.disabilityresources.org/MINNESOTA.html>

This web link provides a very thorough list of resources, including many of the following services:

General

- Disability Information Network: Minnesota State Council on Disability
<http://www.disability.state.mn.us/> V/TTY: (800) 945-8913
- The Minnesota State Council on Disability
This agency collaborates, advocates, advises and provides information to expand opportunities, increase the quality of life and empower all persons with disabilities
- First Call Minnesota (800) 543-7709
<http://www.firstcall-mn.org/>

First Call Minnesota is a statewide information and referral system that has regional offices located around the state. First Call Minnesota works closely with many state and local agencies to provide the most up-to-date and comprehensive information about human services available to the people of the state of Minnesota.

Brain Injury

- The Brain Injury Association of Minnesota (800) 669-6442
<http://www.braininjurymn.org/>

The Brain Injury Association of Minnesota is the only nonprofit organization in the state devoted solely to serving the needs of the 94,000 Minnesotans who live with a disability due to brain injury.

Mission: To create a better future through brain injury prevention, research, education and advocacy.

Learning Disabilities

- LD OnLine - Minnesota
http://www.ldonline.org/finding_help/local_org/minnesota.html

This site provides a list of Minnesota resources including state and federal agencies.

- NALLD State Resources for Literacy and Learning Disabilities - Minnesota
<http://www.nifl.gov/nifl/ld/states/mn.html#Learning%20Disabilities%20of%20MN>
5 State area number: (800) 488-4395

Mental Illness

- NAMI Minnesota (888) 473-0237
<http://mn.nami.org/>

NAMI-MN's mission is to champion justice, dignity, and respect for all people affected by mental illness (biological brain disorders).

Vocational Rehabilitation

- MN Rehabilitation 800-328-9095
TTY: 800-657-3973
http://www.mnworkforcecenter.org/rehab/vr/main_vr.htm

Vocational Rehabilitation (VR) is for people with disabilities who need our services to prepare for work, or to find and keep a job.

National

National Resources for Adults with Learning Disabilities

Learning Disability Organizations, Attention Deficit Disorder Organizations, Technology, Publications and Toll-Free Numbers
<http://www.nifl.gov/nifl/ld/archive/resource.htm#checklist>

On-Line disability resources from the University of Kansas

<http://das.kucrl.org/mainresources.html>

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What Does the Law Say?

The following are excerpts from a presentation at the National Institute on the Teaching of Psychology (Trujillo & DeVolder, 2001).

Two laws that were developed to protect the rights of people with disabilities are implemented at Pine Technical College through the Disability Services Office.

1. **Section 504 of the Rehabilitation Act of 1973** states that no otherwise qualified individual with a disability be denied access to the benefits of, or be subjected to discrimination, under any program or activity receiving federal financial assistance. The statute was intended to prevent discrimination against persons with disabilities, to eliminate barriers, and to “level the playing field.”
2. **The Americans with Disabilities Act (ADA)**, effective since Jan 26, 1992, is very similar to the Section 504 above except that the ADA applies not only to institutions, but in most cases, to any private or public university.

According to the law, college faculty is obliged to help students with disabilities. The term “otherwise qualified individual” means that the student does meet admissions requirements for the college and that the institution is now committed to making reasonable accommodations for them.

Reasonable accommodations may encompass specific teaching mechanisms or evaluation standards that enable success without compromising the standards of the coursework.

Eligibility for Services

Eligible students are those who meet admission requirements, have documentation of a disability, and have met with the disability services office in advance of a request for accommodations and/or modifications

Other Psychological Disabilities

The following information regarding other common psychological disabilities and symptoms that may accompany the specific disorders was obtained from The National Mental Health Association (2004).

Borderline Personality Disorder –The symptoms of Borderline Personality Disorder can be summarized as instability in mood, thinking, behavior, personal relations, and self-image. Individuals with the disorder may:

- Demand constant attention and make unreasonable demands.
- Avoid being alone by acting out a crisis or dramatizing a problem.
- Display provocative behavior.
- Go on eating or spending binges.
- Have mood swings, brief periods of severe depression, anxiety or anger over something minor.
- Engage in self-destructive behavior.

Dissociative Disorders - Dissociation is a mental process that causes a lack of connection in a person's thoughts, memory and sense of identity. Many people experience a mild dissociation when "getting lost in a book" or when driving a familiar road and realizing that you don't remember the last several miles. In the severe form of dissociation the person may experience confusion about personal identity or assumes a new identity, and/or significant disruptions with thoughts and memories. Forms of dissociation include:

- Dissociative Amnesia -- Inability to recall important information or personally significant memories.
- Dissociative Fugue – Memory loss characteristic of amnesia, loss of one's identity, and fleeing from one's home environment.
- Dissociative Identity Disorder or "Multiple Personality" – the person has two or more distinct personalities that alternate with one another.

Paranoid Disorders – Paranoia involves feelings of persecution and an exaggerated sense of self-importance. Paranoia occurs in many mental disorders and is rarely an isolated mental illness. There are varying types and degrees of paranoia. Symptoms of this disorder may include:

- Intense or irrational mistrust.
- Feelings of rage, hatred and betrayal.
- Taking offense easily.
- Difficulty forgiving others.
- Defensive attitude in response to imagined criticism.
- Inability to relax.
- Fear of being taken advantage of.
- Argumentative.
- Stubborn, self-righteous, or perfectionist.

Schizophrenia - This disorder affects how a person thinks, feels and acts. People with schizophrenia may have difficulty distinguishing between what is real and what is imaginary. Others with this disorder may have difficulty behaving “normally” in social situations or may be withdrawn or unresponsive. Schizophrenia, however, is not split personality or multiple personality. The vast majority of people with schizophrenia are not violent and do not pose a danger to others. The signs of schizophrenia are different for everyone. Symptoms may develop slowly over a period of months or years or may appear suddenly. The disease may also appear in cycles of relapse and remission. Behaviors or early warning signs may include:

- Hearing or seeing something that isn’t there.
- A constant feeling of being watched.
- Unusual or nonsensical manner of speaking or writing.
- Unusual body positioning.
- Deterioration of academic or work performance.
- Change in appearance – personal hygiene.
- Increasing withdrawal from social situations.
- Irrational, angry or fearful response to loved ones.
- Inability to concentrate or sleep.
- Excessive preoccupation with religion or occult.

Symptoms of Schizophrenia may include:

- Delusions – false ideas.
- Hallucinations – seeing, hearing, feeling, tasting or smelling something that doesn’t exist.
- Disordered thinking and speech.
- Social withdrawal.
- Extreme apathy.
- Lack of drive or initiative.
- Emotional unresponsiveness.

Eating Disorders – Individuals with eating disorders experience severe disturbances in their eating habits, including unhealthy reduction of food intake or unhealthy overeating. People with eating disorders are also overly concerned about their body shape and weight. Eating disorders commonly develop during adolescence or early childhood. Eating disorders are real, treatable illnesses. Causes of eating disorders may include: low self-esteem, peer pressure to be thin, society or cultural pressures to be thin, history of sexual abuse, or extremely controlling parents who don't allow for expression of emotions. Anorexia Nervosa and Bulimia Nervosa are the two most common types of eating disorders.

Anorexia Nervosa – Symptoms of Anorexia Nervosa include extreme weight loss and the belief that one is fat despite excessive thinness. Other symptoms may include:

- Eats tiny portions of food, skips meals, won't eat in front of others, eating in a ritualistic way.
- Eats only a few "safe" foods (low calorie or low fat).
- Loses hair, appears pale in skin color, wears baggy clothes to hide thinness.
- Fears obesity and complains of being fat despite thinness.
- Hates all or certain parts of body.
- Excessive or compulsive exercise routine.
- "Perfectionist."
- Becomes socially isolated.
- Has difficulty expressing emotions, primarily anger.

Bulimia Nervosa – Symptoms of Bulimia Nervosa include frequent acts of binge-eating and purging (vomiting, ingesting laxatives, exercising excessively) of food to prevent weight gain. Other symptoms may include:

- Binges secretly.
- Buys "binge food" (primarily junk food or high-caloric foods).
- Leaves clues including empty food packages, foul-smelling bathrooms, running water to cover the sound of vomiting, use of breath mints, poorly hidden containers of vomit.
- Uses water pills, diet pills or laxatives.
- Abuses alcohol or drugs to suppress appetite or to escape emotional hurt.
- Displays little impulse control – making poor decisions about sex, commitment, money, etc.

Asperger's Disorder – According to the Northern County Psychiatric Associates (2001), Asperger's is a specific type of Pervasive Developmental Disorder (PDD) which is characterized by problems associated with development of social skills and behavior. Asperger's is a mild form of Autism. Individuals with Asperger's generally have normal intelligence and normal early language acquisition. However, individuals show difficulty with social interaction and nonverbal communication. Individuals with Asperger's may also show obsessive or repetitive behavior. Some adults with mild Asperger's Disorder are able to learn to compensate. Many marry, hold a job, attend college, and have children. Other individuals live an isolated existence with continuing severe difficulties in social and occupational functioning. Symptoms of Asperger's Disorder may include:

- Marked impairment in the use of multiple nonverbal behaviors (eye-to eye gaze, facial expression, body postures).
- Failure to develop peer relationships appropriate to developmental level.
- Lack of spontaneous seeking to share enjoyment, interests or achievements with other people.
- Apparently inflexible adherence to specific, nonfunctional routines or rituals.
- Persistent preoccupation with parts of objects.
- Stereotyped and repetitive motor mannerisms (hand or finger flapping or twisting, or complex whole-body movements).
- Concrete thinking (versus abstract).
- Writing problems and difficulty with math.
- Flat and emotionless voice.
- Social awareness but inappropriate reciprocal interaction.

Tourette's Disorder – According to the American Psychiatric Association, DSM-IV-TR (2000), the essential features of Tourette's Disorder are multiple motor tics and one or more vocal tics. A tic is a sudden rapid, recurrent, nonrhythmic, stereotyped motor movement or vocalization. Simple motor tics are: eye blinking, nose wrinkling, neck jerking, shoulder shrugging, or facial grimacing. Simple vocal tics are meaningless words or sounds such as, throat clearing, clicking, grunting, sniffing, snorting and coughing. Tics may occur many times a day recurrently throughout a period of more than a year. The symptoms may be lifelong, though periods of remission lasting from weeks to years may occur.

Framing Graphic

is about...

Key Topic

Main idea

Main idea

Main idea

Essential details

Essential details

Essential details

Essential details

Essential details

Essential details

Essential details

Essential details

BIG IDEA (What is important to understand about this?)

PINE TECHNICAL COLLEGE
MTTP Inspection Report

Date: _____ Operator: _____

Points Possible	Rev.	Part Number	STEP SHAFT	Part Name	Operation Number	Turning	Operation Description
20							

Print Dimension and Tolerance	Inspection Tool Used	Part Measurement (Student)	In Tolerance? (Circle)	Part Measurement (Inspector)
.375 +/- .005 Dia	1" Micrometer		Yes/No	
.500 +/- .005 Length	Dial Caliper		Yes/No	
.500 +/- .005 Dia	1" Micrometer		Yes/No	
.750 +/- .005 Dia	1" Micrometer		Yes/No	
.500 +/- .005 Length	Dial Caliper		Yes/No	
1.000 +/- .005 Dia	1" Micrometer		Yes/No	
.500 +/- .005 Length	Dial Caliper		Yes/No	
2.000 +/- .005 Length	Dial Caliper		Yes/No	
Break Sharp Edges			Yes/No	
Finish			Yes/No	
			Yes/No	
			Yes/No	
			Yes/No	
			Yes/No	



