Characteristics of Gifted/Learning Disabled Youth

- Intelligence

- Quick conceptualization of ideas

- Enjoyment of solving novel tasks autonomously

- Regularity in completing assignments

- Difficulty with rote memory tasks

- Frustration

- Advanced abstract reasoning skills

- Poor organizational skills

- High motivation in areas of interest

- Poor self-efficacy

Characteristics of Technology Tools

- Allows teacher to customize for student

- Enables student to work at own pace

- Provides opportunities for authentic product development

- Supports skill deficiency development

- Promotes problem-solving skills

- Facilitates collaborative learning

Instructional Technology Strategies for Gifted/Learning Disabled Youth

- Use technologies that build student's self-esteem

- Identify technologies that develop strengths and interests

- Integrate technology that promotes a problem-based curriculum designed to engage the learner in real-world learning
- Develop coping strategies

- Allow for multiple product development options

- Utilize technology that facilitates cooperation among parents, gifted specialists, learning disability specialists, general classroom teachers, and the student

Read Disabilities

Name	Description	Benefits	Pros	Cons	Where to find
Leap Frog Tag Reading	System that allows students to touch "tag readers" at specified books that will say the words aloud.	The system teaches reading skills such as phonics, vocabulary, and comprehension skills.	There are multiple books that leap frog offers ranging in skill levels. Easy to use with the ability to plug in headphones during class time to minimize distractions to others.	Tag readers cost $40 apiece and books range from $14 - $150. If schools are unwilling to adopt the program expenses, teachers may be stuck with a hefty price.	http://www.leapfrog.com/tag/
Read & Write Gold software	Program that allows students learn to read and write at their own pace. Allows students to speak into the system, which in turn converts it into text that appears on the screen in front of them.	Students can listen along as the software reads a word, sentence or paragraph at their own pace while reading the text on the computer screen in front of them.	The software is not limited to a specific set of text it can read. Students can change preferences such as voice gender, speed, and pitch.	The latest edition of the software ranges in cost from $525 for single word and sentence help, up to $925 for the fully advanced version.	http://www.readwritegold.com/
Graphic Organizers	Provides guided worksheets that students follow throughout the reading process so that they remember what they read and how to spot important information within a text.	After completing multiple Graphic Organizers students will begin to perform the steps internally.	Easy step-by-step worksheets. Can be used with teacher guidance or individually for those more advanced students.	Can take some time to teach students how the Graphic Organizer works. May need to be adapted to specific lessons.	http://www.graphicorganizers.com/Software/Makes-Sense-Strategies%E2%84%A2-The-Works-Software/flypage.tpl.html

Read Disabilities

Name	Description	Benefits	Pros	Cons	Where to find
Text messaging devices	Device that allows user to send messages via words typed in on an attached keyboard.	Quick and easy to get a message across.	Texting language is very informal so abbreviations make it a much more convenient to communicate with others. All cell phones have this ability and it has become inexpensive when purchasing a text-messaging package.	Students are getting confused when writing in school, as to what correct grammar and punctuation is. Since words are often abbreviated in text messages, students do not know how to spell the word correctly.	AT&T, Verizon, T-Mobile and Sprint along with many smaller cell phone providers.
Book Builder	Book Builder is a website that lets users create, read, and publish digital books. Teachers or other students can record themselves while reading and then store that session on the computer. Students can then go back and listen while following along on the screen as someone else reads the story.	Students who have difficulty reading can listen to other students their same age read a story so that they can understand how they are pronouncing and form words.	Students who are nervous to read in front of others can now read while alone and record themselves while they do. Teachers can then go back later to make sure students are progressing at a normal pace or pinpoint areas of concern.	If another student reads a word incorrectly, the student listening may think this is the correct pronunciation and not learn the correct way.	http://bookbuilder.cast.org
Video capture and editing software	This strategy helps students to communicate in an alternative way if their verbal skills are not strong.	Students can video record objects, places or people to demonstrate knowledge of a topic or idea. After uploading the video students can add sounds or text to express what they want to get across.	Students can be as creative as they want to be. Gives them a way to express themselves in a way that is comfortable to them.	Does not strengthen their verbal skills. Students will not always have the ability to communicate in society with video capturing and editing.	iMovie Virtual VCR (www.virtualvcr.sourceforge.net) Windows Movie Maker

Reading Disabilties: IPad Applications

Name	Description	Benefits	Pros	Cons	Where to find
Proloquo2Go	Proloquo2Go is a compact touch communication program that helps those who have difficulty speaking. The program enables the user to touch a button that can express feelings, emotions, common phrases and other words needed to communicate.	The program gives the user the ability to verbally communicate in a way that easy for others in the community to understand.	iPod, iPhone, and iPad downloadable. Easy to use. Easy for others to understand.	Users may feel embarrassed using an alternative means of communication that is not used by everyone else.	http://www.proloquo2go.com/About/article/what-is-proloquo2go
My Spelling Test	This program enables the user to input words as well as lets them record a voice saying the correct pronunciation of each word.	Users can input weekly spelling words to practice whenever they want. Multiple weeks can be added so that practice begins before the words are introduced in class.	Allows user to see what the score was for each test taken showing progression from beginning to end. Easy to use. Only $0.99 to purchase.	Not in a game format so kids may get tired or bored with the lack of entertainment factor.	iTunes

Math Disabilities					
Name	**Description**	**Benefits**	**Pros**	**Cons**	**Where to find**
Scientific , Graphic and Digital Calculators	These devices give the student the ability to see how equations look when plotted out in algebraic and geometric formulas.	Higher-level math classes will be made easier when students can input a whole equation and see it worked out.	Can see digital easy to read display. Puts the means of solving problems in the hands of the student. Builds confidence when student gets the problem correct.	Student can become dependent on the device or not learn how to solve problems by writing it out.	Any major department store where electronics are sold.
Digital Manipulatives	Blocks that make learning adding, subtracting, and fractions easier by giving a physical representation of an equation.	Students can touch and move the blocks to add or take away depending on the problem. Students can build fractions with individual blocks.	Easy to use. Depending on which kit is needed, they can be inexpensive considering how long it will last and the benefits it will produce.	For younger students, the pieces can be a choking hazard if swallowed. Depending on how many kits available, may run out for all students to use.	ToysRus, Officeworld, www.quill.com, www.thenerds.net, and www.u-need-it.com
SMARTboards / Promethean boards	Devices that allow teachers to project and change information on a board at the front of the classroom. Very similar to overhead projectors except this uses the internet to pull alternative information up at anytime	All students can see and when called upon manipulate information on the screen. Gives students the ability display their work to the class without having to carry around a lot of material. Students and teachers can save information done in class and upload to the internet for retrieval at home.	Students can retrieve teacher examples at home while doing homework or studying for a quiz/test. Easy to see during class. Able to pull large amounts of examples/materials from the internet quickly.	Boards are expensive to purchase and if they break are just as expensive to fix.	http://www.peppm.org/Products/promethean/price.pdf

Math Disabilities; iPad Applications

Name	Description	Benefits	Pros	Cons	Where to find
Math Ninja	Application that takes learning math and puts it into an action game format that students will see as fun and entertaining.	Students will learn math skills that are grade relevant while playing a game. This will	Inexpensive- $1.99 Can be played anywhere the device is.	Application only for iPads, iPod Touch or iPhones.	iTunes
Rocket Math	This application gives 56 different missions or ability levels that students can progress through to build their skills.	Students can pick and choose their ability level and start where they need too. This game is aimed at students aged 4-12.	$0.99 on iTunes. Designed for multiple ages and skill levels. Portable, can be used anywhere your device is.	Same game over and over students may get bored with the repetitive story play.	iTunes

Writing Disabilities

Name	Description	Benefits	Pros	Cons	Where to find
Microsoft Word and Powerpoint	Programs that provide word prediction and autocorrect software as well as a thesaurus, and grammar checking.	Students can focus on writing thoughts, feelings and ideas without the worry of making a mistake, then go back later and review and correct where the program has found an error.	Saves time versus going to a dictionary and thesaurus. Makes students more confident in themselves knowing their work is correct.	Students may not realize they are spelling a word incorrectly if the system autocorrects it for them. They may assume that the way they spelled it is correct and not learn the right way.	http://www.microsoftstore.com/store/msstore/html/pbPage.Office_Category_Page?WT.mc_id=MSCOM_HP_US_NAV_Office2010
Type to Learn 3	Students can build their typing skills so that writing on a computer becomes a fluid motion.	If students are preoccupied with where buttons are located on the keyboard, they cannot focus on what they are writing. Teaching students how to type effectively lets students focus on word choice, punctuation and sentence formation.	Students learn multiple skills in learning to type.	Limited audience range, designed for ages 8-14. Game would not be accepted by an older group of students.	http://www.smartkidssoftware.com/ndsun3.htm
Speech Recognition Software	Students that struggle with writing can use speech recognition software that transcribes what they say and put it into a written format.	Rather than getting frustrated by not being able to write well, students can dictate the information they want to get across. The software then takes the verbal input and translates it into typed text.	Students can present information that they know in a way that may have been difficult for them to express in the past. Gives students more confidence knowing that they can now give evidence that they know a topic.	Students may get hooked on the software doing the work for them and never learning how to write for themselves.	Nuance- http://shop.nuance.com/store/nuanceus/DisplayHomePage?resid=TtW0PAoBAlgAAGnGEysAAAAU&rests=1322628156085 PlainTalk- http://www.tucows.com/preview/206355 Voice Navigator- http://www.ilivid.com/lp/download_manager.php?appid=139&context=00b.6F0000000s2IXG8gx3WkVJ000000

Name	Description	Benefits	Pros	Cons	Where to find
Concept-mapping software	This software allows users to visualize the thinking process, making writing easier to manage.	Users can see a progression of events or thoughts on the screen so that they can write freely about the topic, then come back to see what the next piece is next.	Students don't get lost in all of their thoughts, or forget to include some important information in their writing.	Teacher must make sure that words going into the chart are what information they want the paper to be written about.	http://www.edrawsoft.com/ConceptMap.php http://cmap.ihmc.us/ http://store.inspiration.com/
Automated Essay Scoring Systems	Software compares what a student has written or summarized and compares it back to the original text.	Users can evaluate how well they are doing and find out where they still might need to improve in their writing skills instantly.	The results are almost instant. Inexpensive for the amount of students it will help. Numerous studies showing success of strategy	Specific to grades 4, 5, and 6 only. Could be beneficial to older age groups as well.	http://www.pearsonschool.com/index.cfm?locator=PSZu68&PMDBSUBCATEGORYID=&PMDBSITEID=2781&PMDBSUBSOLUTIONID=&PMDBSOLUTIONID=6724&PMDBSUBJECTAREAID=&PMDBCATEGORYID=3289&PMDbProgramId=33621&elementType=programComponents