

Adapting the learning environment for children with disabilities research paper s...

[Business](#), [Strategy](#)



Abstract

This research paper discusses adapting the learning environment for children with disabilities, first defining that learning environment and suggesting the disabilities that might be encountered. The research found that different disabilities and the degrees of those disabilities require correspondingly different types of adaptations to the learning environment in terms of modifications to classroom layout, lighting and furnishings, to classroom tools, equipment and play items, and in some instances even modifications to the building itself. It became apparent that a comprehensive plan is required, to achieve the goal of giving disabled children exactly the same learning opportunities as their peers. The needed adaptations were also and perhaps more importantly needed in the areas of teaching techniques and practices, whereby teachers have to adapt their teaching methods in various ways to cope with the wide range of particular disabilities that might be encountered. The research includes a list of a number of these, along with recommended strategies for teachers. To cope adequately and effectively in order to provide the quality of teaching needed, it was found that teachers must adapt methods in a number of ways according to particular student disabilities. In conclusion, it became apparent that a combination of physical adaptations (classroom, equipment, etc) and teaching adjustments are essential to provide that high quality of education and learning opportunities for disabled children.

Introduction

The Research

eXtension. org, which describes itself as “ an interactive learning environment delivering the best, most researched knowledge from the smartest land-grant university minds across America” features articles dealing with issues relevant to this subject. One such article is entitled “ Adapting the Child Care Environment for Children with Special Needs” (December 2011). It offers the cautionary advice to remember that those children with disabilities (or special needs) are first and foremost children, and that they are likely to be more similar than different from their peers without disabilities. The reader is also reminded to take into account that every child’s personality is unique and that each child has their own strengths, weaknesses and skills, when planning adaptations and/or modifications to suit their needs. Teachers are urged to find out as much as possible about each child and their particular disability in order to do the best for them, including consulting with parents and any professionals involved with the child. It notes that needed adaptations may be relatively simple and benefit non-disabled children, too. There is an advisory list of what it calls “ General Modifications”, as follows:

Plan together: Discuss plans, ideas and set goals with parents, consultants and caregivers; join the team for the child’s Individualized Education Plan (IEP).

Modify toys and equipment: Many regular toys can be easily and simply modified; e. g. cover bottles with a cloth sock to make holding easier.

Make minor changes to the environment: Examples are adjustments such as

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extra lighting to help with impaired vision, or a quiet spot for an overactive child.

Be a behavior model: If a child is timid about group play, join in yourself to help the child become relaxed, then progressively invite other children to participate.

Help them to find/be a playmate: Help them learn how to ask others to play.

Teach “ normal” children to deal with disabled peers: Show them how to gain the attention of a disabled child (e. g. by a light touch if hearing is impaired).

Look for their strengths: Remember each child is a complete person – treat them accordingly. Provide activities that target their own strengths.

Always ask for advice: Remember that parents and specialists may have specific advice for dealing with a child, though may mistakenly assume you know best.

Depending on the actual disabilities, there are of course more specific adaptations that need to be considered. Wistrom and Stannard Gromisch (Ed.) (Dec 2011) deal with some of these in the article “ Adaptations in the Classroom” which advises considering the following aspects to ensure fully effective learning, having first used diagnostic assessments, classroom testing and consultations with others involved to pinpoint the disabilities:

Adjustments to the physical environment: making the classroom a safe and secure environment for all pupils is especially important for children with disabilities. From that starting point, the article recommends that in creating a safe and barrier-free setting, the floor, desks, classroom equipment, etc

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should be clutter-free, and the classroom should have good light and ventilation, be attractively and comfortably furnished and peaceful, to aid effective learning.

Organization of the teaching environment: entails planning and implementing the curriculum and other aspects such as group study, and the systems utilized for delivering and presenting the information and imparting skills to the pupils. For certain disabilities, you may need to consult a buildings specialist to arrange specific adaptations to the classroom itself.

Utilizing available educational technology: includes the use of TV, audio, computers, etc, to enhance the quality and productivity of the education provided. The article advises teachers to monitor new developments that may become available, and – if budget constraints are a barrier – to investigate grant programs that might be on offer either locally or nationally.

Management of resources, including time: Wistrom reminds teachers that they are effectively the managers responsible for allocating, organizing and utilizing those essential resources, thus giving them the opportunity to incorporate adaptations into the daily schedules. Those might include modifying the timings for teaching a specific subject, using different learning materials, or bringing in other teaching personnel to assist in class. They recommend dividing daily schedules into blocks of time, then planning all the variables in advance to ensure all adaptations like additional materials and personnel are there when actually needed.

Staying for the moment with general physical child disabilities, another article from eXtension. org entitled “ Specific Ideas for Child Care Providers

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to Help Children with Physical Disabilities” (updated Nov 2011) offers further advice for teachers and others involved in child care. It points out that in order to fully participate in class activities, children with physical disabilities require different types and degrees of assistance and/or support. The article also reminds teachers that children like to be independent, so to resist trying to do everything for disabled children. Instead, encourage them to attempt things for themselves. That will help them to be more independent and to gain confidence. Some of the suggested ways teachers and other care providers can support the learning of these disabled children include arranging the room layout with wide aisles for easier ambulation, making the furnishings and any other fixed objects secure, and ensuring each child can sit securely and comfortably whatever their disability.

In terms of the learning activities, that same article offers a list of ways to adapt those to assist the disabled children in the class:

For children with disabilities affecting muscular control, lack of coordination, weakness, etc, provide tools to help them grip, hold, release, etc. Add tabs to book pages to help page turning. Affix tape on marker pens and crayons. Provide easy-hold paint brushes or fix them onto a glove. Provide special scissors designed for disabled use, and spray containers to exercise the squeezing action.

Use toys and tools appropriate to the child’s age.

Provide a variety of textures to help stimulate their sense of touch.

Provide good and, if needed, additional lighting.

Include activities that require children to use all parts of their body. Consult

parents and others for any special exercises and include them in group activities.

Contain play items in an area. For example, play blocks deployed in an inverted cardboard box lid or rolling a ball within a hoop positioned on the floor.

Another aspect of adaptation of the classroom environment covered by this article is that of teaching other children how to help their disabled classmates. As explained, their peers may tend to offer too much help, i. e. take over the task completely. Teachers need to encourage that help, but explain that disabled children should do as much as they can unaided, and that if the disabled child declines offers of help, their classmates should respect that. Teachers should also consciously involve disabled children in group play. An example might be to move play blocks or other toys or games onto a table so that a child in a wheelchair can more easily participate.

So far, the research has dealt with adapting the learning environment with a generalized approach to disabilities. An article by Alexander and Forsyth (Ed.) (updated Nov 2011) entitled: "Attending to the 13 Types of Specific Learning Disabilities" addresses specific disabilities and offers advice on strategies relevant to each of those specific learning difficulties (SLD's), thus providing more targeted guidance in adapting the learning environment.

Auditory Processing Disorders: APD's are sound processing impairments in the brain, causing difficulties in distinguishing sounds. Recommended strategy: after seeking guidance from an audiologist, seat the child as near to you as possible, adjust the acoustics if feasible and perhaps provide the child with headphones if available / appropriate.

Visual Processing Disorders: VPD's are effects of the brain distorting visually received information, affecting learning. Typically, a child cannot distinguish letters, numbers or symbols. Recommended strategy: use audio as far as possible for class readings; use large print, raised lines paper and block text techniques to help with recognition of important information.

Dysacusis: This is a hearing disorder causing pitch, tone quality, loudness of sounds to be difficult to discriminate, discomforting the sufferer.

Recommended strategy: (None given).

Dysarthria: This is a learning disorder evidenced by difficulty in speaking due to damage to the speech-producing muscles. It may also cause lack of speech volume control and lack of breathing control whilst speaking.

Recommended strategy: urge the child to take a deep breath before speaking; use sign language or pictures where appropriate and possible.

Dyscalculia: Resulting from brain injury, this disability causes a problem in understanding, learning and remembering math concepts and information, and difficulty in transferring data onto paper. Recommended strategy: teach math facts to the class using more than one method; break down math teaching in a way that all can understand; use graph paper to help the children organize their work; ensure there are no distractions in the class environment.

Dysgraphia (or Agraphia): A learning disorder affecting writing ability due to impaired motor function of the hand(s). It causes writing letters shapes poorly, writing letters excessively large, or errors in spelling, even though knowing the correct spelling. Recommended strategy: encourage affected children to plan writing tasks and prepare notes first. Depending on their

age, allow them to provide typed work; use word games (e. g. Scrabble) to help improve spelling.

Dyskinesia: Caused by brain function impairment, this disorder is evidenced by spastic movements, clumsiness and lack of coordination. The disability can show in various ways, from random movements of the mouth (affecting speaking), to uncontrollable motion of legs and/or feet and even kicks or punches. Recommended strategy: consult with the child's specialists to determine the most effective techniques to deal with their specific instance of the problem.

Dyslexia: Possibly the best known of these disabilities, it is a disorder of language which impairs comprehension and fluency in reading. It shows as difficulties with spelling, slow reading out loud with numerous errors, difficulty in recognizing symbols and in matching letters and their sounds. Recommended strategy: if possible, provide visual cues and use different methods to help understanding of sounds; provide assistance (using technology if applicable) to help the subject with reading, writing and general communication skills.

Dyslogia: A mental illness-related disability causing illogical thought processes that affect the ability to send verbal messages. It is characterized by rhyming speech, slowed speech, rapid speech, or speech unrelated to the current topic. Recommended strategy: consult psychologists or other mental health specialists to find the most suitable teaching techniques.

Dysnomia: A memory problem that causes an inability to recall words needed to express thoughts. Affected children can "freeze" when asked questions, but can speak freely on familiar subjects. Occasionally they

cannot find the right word to use; they can remember, but lack the ability to recall it from memory. Sometimes they use nonsensical words or language. Recommended strategy: start sentences and ask the child to complete them (do not finish their sentences for them – they will find that frustrating); play visual games of guessing to name pictures or objects; focus questions on topics where you know the child has strengths.

Dysphasia (or Aphasia): A language-based disorder causing the subject to exhibit poor levels of reading comprehension and to struggle when speaking. It may also show as inability to understand the meanings of jokes, and difficulty naming pictures or objects. Recommended strategy: write lesson topics on the board at the start of the lesson, and speak slowly and clearly, using short sentences. Use Story Mapping; that technique is described in detail at Instructional Strategies Online (n. d.), where other resources including templates are also provided.

Dysrhythmia: A speech disorder caused by brain waves irregularities, causing noticeable variations in the rhythm of speech and/or movement. Children with this disability are also easily distracted and have a short attention span. Recommended strategy: consult specialists to determine the best classroom techniques for that particular child.

Hyperlexia: Children with this disorder may seem gifted and show good early reading skill, but have limited social skills and great difficulty with speech and the spoken word. Recommended strategy: build social skills through social play and stories; use visual learning techniques; focus on language skills and solicit help from a speech-language pathologist.

Non-verbal learning disorders: Inability to deal with new situations and/or

abstract concepts like idioms and jokes. Children with these disabilities also struggle to organize information and have visual-spatial difficulties.

Recommended strategy: target their specific problems by providing them with space and tools to organize their work; color code their work; consult parents regarding strategies found to be effective in the home environment. As well as adopting the recommended strategies to deal with the above list of disabilities, adaptive (or assistive) equipment can be advantageously introduced and utilized in the classroom environment. An article by Wistrom and Stannard Gromisch (Ed.) entitled " Information About Adaptive Equipment" (updated July 2012) states that " adaptive equipment acts like a lifeline for many children with special needs". The article covers adaptive equipment for general use, plus a section about equipment specifically for use in classrooms and restrooms. That section covers:

Augmentative communication devices: for children with impairments of speech.

Specially designed positioning aids: children who cannot use normal desks and/or chairs, may require customized furniture or wheelchairs.

Restrooms equipment: specially adapted facilities there as well as modified cutlery and other equipment in the lunch areas.

Standers: Some disabilities require the child to stand for long periods.

Custom-designed standers that provide leg/back support and adjust to suit all age ranges come with tables so that the student can join in class work while standing.

Classroom adaptations (the room and teaching methods) can be made especially for those children with certain disabilities. For those with visual impairments an article by Malburg and Forsyth (Ed.) entitled “ Looking Through Their Eyes: Teaching Suggestions for Visually Impaired Students” (updated Nov 2011) describes measures that can be put in place. Because such children may have difficulty reading, seeing the board, may walk into objects and even withdraw from group play, the teacher must help them adapt, e. g. by providing assistance including adaptive tools (such as page magnifiers) and learning materials, so that they feel at ease with the classroom and with their fellow students. When writing on the white board, use only dark colors and large characters. You might record lessons and class discussions so they can be taken home, to listen to again. For those with little or no vision, obtaining Braille copies of books may be a needed solution. Technology is evolving, so new devices may become available.

Consider making other changes in your teaching technique, such as:

Explain everything in detail, particularly for the benefit of blind students.

Always give instructions orally and read written information out loud.

Identify everyone (including yourself) by name.

Include tactile (hands on) topics in class, such as passing around objects to feel.

When entering or leaving the classroom, tell your class where you are.

Make sure test formats give equal opportunity to the visually impaired.

For teaching those students with hearing impairments, an article by Rose and Stonecypher (Ed.) entitled “ How to Teach Hearing Impaired Students:

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Strategies for Success” (updated Nov 2011) provides useful information.

Suggested classroom adaptations include:

Switch off noisy equipment such as fans when not needed.

Sit those students near you and address them by name before talking to them.

Do not speak too loudly but do speak clearly and not too fast, facing the students.

If possible, arrange class seating so that hearing impaired students can see other students; especially useful for lip reading.

Use visual aids wherever possible and sound amplifying devices if needed.

An article by Torreno and Stannard Gromisch (Ed.) (updated May 2012) is entitled “ Teaching Strategies for Students With Speech Impairments”.

Disabilities mentioned in the article include a whole range of impairments including those caused by cleft palate, autism, cerebral palsy and more.

Strategies suggested include provision of a sign language interpreter if needed, but importantly it emphasizes the need for teachers to be patient, to listen carefully and to positively encourage all students to participate in class discussions and other group activities.

A disability sometimes not recognized as such is that of children who are “ learning disabled”. Those are children having no specific handicap, but who simply seem unable to learn in the same way as their peers. Excerpts from The Complete Idiot's Guide to Success as a Teacher (© 2005) by Anthony D. Fredericks, are compiled in an online article entitled “ Teaching Students with Special Needs”. The article explains that such children are especially

challenging and need specially tailored teaching techniques that might include more oral teaching, frequent progress checks with immediate feedback and specific praise where appropriate, and involvement in group projects with others of differing abilities.

Conclusions

The research undertaken has shown that needed adaptations to the learning environment are wide ranging, as dictated by the diversity and degrees of student disabilities that might be encountered. For example, visual impairment may range from mild sight impairment to full blindness. Although the research has shown that adaptations to the physical environment - the classroom and its equipment and furniture, etc - are often necessary and can vary between minor and extensive, it is also clear that modifications to teaching techniques and practices and methods of communication and testing are equally, if not more important, if disabled students are to have equal learning opportunities and not be disadvantaged because of their disabilities.

References

Adapting the Child Care Environment for Children with Special Needs. (December 2011). eXtension. org. Retrieved from <http://www.extension.org/pages/61358/adapting-the-child-care-environment-for-children-with-special-needs>

Alexander, Deidra & Forsyth, S (Ed.). Attending to the 13 Types of Specific Learning Disabilities. (updated November 2011). Bright Hub Education. Retrieved from <http://www.brighthubeducation.com/special-ed-learning->

<https://assignbuster.com/adapting-the-learning-environment-for-children-with-disabilities-research-paper-sample/>

disorders/74109-advice-for-teachers-dealing-with-13-types-of-specific-learning-disabilities/? cid= parsely_rec

Instructional Strategies Online. (Story Mapping) (n. d.). Retrieved from <http://olc.spsd.sk.ca/de/pd/instr/strats/storymapping/index.html>

Malburg, Sarah and Forsyth S. (Ed.). Looking Through Their Eyes: Teaching Suggestions for Visually Impaired Students. (updated Nov 2011). Bright Hub Education. Retrieved from <http://www.brighthubeducation.com/special-ed-visual-impairments/62427-ideas-for-how-to-teach-visually-impaired-students-seeing-the-big-picture/>

Rose, Sharilyn and Stonecypher, Lamar (Ed.). How to Teach Hearing Impaired Students: Strategies for Success." (updated Nov 2011). Bright Hub Education. Retrieved from http://www.brighthubeducation.com/special-ed-hearing-impairments/67528-tips-and-strategies-for-teaching-hearing-impaired-students/? cid= parsely_rec

Specific Ideas for Child Care Providers to Help Children with Physical Disabilities. (updated: November 29, 2011). eXtension. org. Retrieved from <http://www.extension.org/pages/26344/specific-ideas-for-child-care-providers-to-help-children-with-physical-disabilities>

Teaching Students with Special Needs. (n. d.). Teacher Vision. Retrieved from <http://www.teachervision.fen.com/special-education/new-teacher/48460.html? page= 1&detoured= 1>

Torreno, Stephanie and Stannard Gromisch, Elizabeth (Ed.). Teaching Strategies for Students With Speech Impairments. (updated May 2012). Bright Hub Education. Retrieved from <http://www.brighthubeducation.com/special-ed-speech-disorders/113025-strategies-used-to-teach-students->

<https://assignbuster.com/adapting-the-learning-environment-for-children-with-disabilities-research-paper-sample/>

with-speech-impairments/? cid= parsely_rec

Wistrom, Elizabeth & Stannard Gromisch, Elizabeth (Ed.). Adaptations in the Classroom. (December 2011). Bright Hub Education. Retrieved from <http://www.brighthubeducation.com/special-ed-inclusion-strategies/15327-adapting-your-school-classroom-for-a-disability-student/>

Wistrom, Elizabeth & Stannard Gromisch, Elizabeth (Ed.). Information About Adaptive Equipment. (Updated July 2012). Bright Hub Education. Retrieved from http://www.brighthubeducation.com/special-ed-physical-disabilities/61925-examples-of-adaptive-equipment-for-students/? cid= parsely_rec