

Disability Solutions

A resource for families and others interested in Down syndrome and related disabilities.

July/August, 1996

Volume 1, Issue 2

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Learning Individually: The Key to Curricular Adaptations

by Alice Udvari-Solner, Ph.D., & Julie Frentz

"I believe that all children should interact with all children, regardless of whether they have a disability. When I was in school we were separated from each other and that wasn't fair. People tended to make fun of others with disabilities because there were not opportunities to interact with one another."

Comments from parents and educators in a metropolitan school district show that educating students with disabilities with same-age classmates in general education classrooms is becoming more accepted as an effective practice. As a result, educators are considering the impact of their teaching on all students in their classroom. They are looking closely at how individual students learn.

At the same time, parents are learning about teaching methods and strategies. They are advocating for classrooms and instruction that enhance their child's learning. They are using the Individualized Education Plan (IEP) process to point out the need for specific learning environments and strategies that promote success for their child in the classroom. In addition, both parents and profes-

sionals are requesting more staff development and training for specific strategies to include all learners.

This article outlines a useful and fascinating method for lesson development. The method involves 3 basic areas:

- 1 Determine student expectations or outcomes individually
- 2 Design effective classroom lessons using a reflective decision-making process
- 3 Document which methods work best for individual students.

Traditionally, teachers have planned lessons and activities by considering the abilities of the majority of the class members. For example, a math lesson in the third grade that teaches multiplication up to the number nine might use a worksheet

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Summer is a Time for Thinking Ahead

Regardless of the classroom, effective curricular adaptations are essential for children with Down syndrome and related disabilities. As more children with disabilities are being included, people are learning that all children benefit from instruction designed for the way they learn best. That is the spirit of inclusion: meeting the individual needs of each member in the classroom—regardless of ability.

Unfortunately, in our quest to obtain individualized teaching strategies for our children, we fall into a variety of traps. I have heard many parents advocate intensely for a specific method of presenting information, without considering how their child learns. For example, “children with Down syndrome are visual learners.” This ignores other options that may be equally motivating: music, physical activity, or working with a buddy. Although it is true that children with Down syndrome can have similar issues, each child is unique. Activities and methods that are effective for my child may be repulsive to another. We cannot fall into the trap of saying “all children with Down syndrome” do anything the same.

Recognizing this makes deciding how to present lessons an even greater challenge. First, in order to create effective curricular adaptations, we must understand how our child learns.

In *Learning Individually: The Key to Curricular Adaptation*, Alice Udvari-Solner and Julie Frenz offer a valuable process to use as a tool. Alice and Julie work with educators, professionals, and parents through the University of Wisconsin-Madison and Madison Metropolitan School District to design lessons for individual learners. Here, they offer the process they use to create individualized lessons. It requires brainstorming as a team. It requires creativity. It requires listening. And, it requires an understanding of the student as an individual.

Working through this process creates a collection of successful and not-so-successful teaching methods for a child. This can be passed on and added to each year. Not only is this process a valuable tool for lesson design, it is an extremely effective communication tool.

Typically, *Disability Solutions* will not have articles of this length. However, having a guide for designing lessons is essential to promote successful learning. Without this groundwork, advocating for a specific type of lesson or method can be misunderstood or misused. We must advocate for education that integrates all of our children’s strengths—not as a person who is educated through dissection by specialty.

The timing of providing this resource is purposeful. Read the information thoroughly. Write down your thoughts. Write down your observations of your child this summer with specific examples.

In most school districts, administrators (the principal) will return to work four weeks before the beginning of school. Teachers will return a week before. I encourage you to bring this issue of *Disability Solutions* to your principal, team leader, and teacher. Talk to them about individualizing the lessons for your child’s classroom this year. Bring your observations and suggestions. Make plans to go through this process as a team for your child. All the children in the classroom will benefit as the teacher and related service personnel begin to think of them as individual learners.

Good luck!

Determine Individual Student Expectations

of 30 math problems. Students are expected to complete their math problems at their desk. During the lesson, the teacher makes accommodations for specific students spontaneously by providing a calculator, fact table, or an adult to assist with the lesson. These on-the-spot adaptations¹ occur in every classroom. However, spontaneous adaptations are only one way to individualize learning nor should they be the only way to meet a student's specific learning needs.

Educators find it useful to identify the students who need individual modifications in advance. To do this, educators create a list of students who benefit from nontraditional teaching strategies. This may include students with disabilities, students with English as a Second Language, students with identified talents and gifts, students identified as "at risk," and students who are new to the classroom. By identifying the individual learning style for these students, teachers can begin to plan lessons differently. This includes a wider variety of expected outcomes to the lesson. The result is lesson planning that accommodates all learners. This helps teachers avoid last ditch attempts to "fix" a lesson for a particular set of students.

For some students, it is helpful to create an in-depth description of how they learn best. Teachers and parents can start by describing the learning strengths and needs of students. Typically, formal assessment information provides information about age-level functioning (for example, "Greg functions at 2.6 age level"), ability levels (for example, "Robert reads at three grades below grade-level"), and a list of skills the student cannot do (for example, "Mary cannot read, is unable to attend, and is nonverbal"). This does not always provide productive guidance about what a student can do. It is more helpful to describe students' strengths, to identify learning concerns, and provide examples of successful strategies from other learning or home situations.

"For students, inclusive education provides behavioral models, a sense of being part of the whole school, a way to work cooperatively with groups of students, and less reliance on adults for assistance. For staff, it promotes feelings of being part of the school and provides opportunities to work collaboratively to enhance curriculum."

One way to do this is to create a description of how a student expresses his or her knowledge. At a meeting involving the general educator, special educator, parent, family members, and related service providers information can be categorized. It might also be helpful to include the previous year's teacher when students move from grade to grade. To organize information, teams

can use Howard Gardner's Multiple Intelligences² framework.

The categories include:

- ◆ logical/mathematical: the ability to use numbers effectively.
- ◆ verbal/linguistic: the effective use of words verbally or in writing.
- ◆ bodily/kinesthetic: the use of the whole body to express ideas and feelings. (The ability to create or learn using hands-on methods like a crafts person.)
- ◆ musical: a sensitivity to rhythm, pitch, melody, or tone of music.
- ◆ inter-personal: the ability to perceive and make distinctions in the moods, intentions, motivations, and feelings of other people.
- ◆ intra-personal: an understanding of personal strengths and limitations, moods, intentions, motivations and temperaments.
- ◆ visual/spatial: the ability to accurately perceive the world visually and spatially accurately.

This produces a clearer description of learning activities and teaching strategies that have worked for

1. Udvari-Solner, A. "Examining teacher thinking: Constructing a process to design curricular

adaptations." *Remedial and Special Education*, (in press)
2. Gardner, H. *Frames of Mind: The Theory of Multiple Intelligences* (New York, NY: Harper Collins, 1983).

(Continued from page 1)

a student. From there, educators and family members can design activities and lessons that have a far greater chance of success. As a result, the student is successful more often.

Key Questions for Parents to Ask:

- ◆ What are my child’s most successful classroom activities?
- ◆ What are my child’s favorite classroom activities? Home activities?
- ◆ What activities are most frustrating and why?
- ◆ What are reasonable expectations for my child in general education activities?
- ◆ What concerns need to be addressed for successful participation in the classroom?

During this stage, team members need to remind each other to frame statements about a student in a positive manner. One way to do this is to ask, “When you say Maria is unable to attend, what do you mean by that? Give an example of the type of activity she has trouble with. Give an example of an activity she attends to for a longer period of time.” This keeps the team focused on the how the lesson and classroom effect the student.

After the team has determined how the student learns, lessons can be designed that

Daniel, a five year old kindergartner with Down syndrome, has been described in evaluations as “functioning at a 36th month level, with splinter skills up to 52 months. He is unable to communicate using complete sentences. Daniel is unable to attend for more than two minutes in structured learning situations.” This description provided Daniel’s teacher with his limitations but left little room for possibilities in teaching strategies. As Daniel’s team began to discuss him as a learner, the description below emerged:

Area of Intelligence	Description of Activity or Characteristic	Person Contributing
Verbal/Linguistic	Uses up to three word approximations at home. For example, “Mom, want ET” when he wants to watch the ET video.	Parent
Logical/Mathematical	Can put puzzles together. Knows how to “get his way” with siblings at home.	Parent & Teacher
Musical	Can count with one-to-one correspondence when using a rhythm. Stays interested in the learning activity when music is involved.	OT & Teacher
Bodily/Kinesesthetic	Enjoys activity involving movement. A hands on learner.	Parent, OT, & Teacher
Visual/Spatial	Use of pictures encourages language.	Speech Therapist & OT
Intra-personal	Notices his own mistakes in cutting and printing activities. Corrects those mistakes without guidance.	Teacher
Inter-personal	Motivated by peers. Interested in imitating their actions.	Parent & Teacher
Other	Has made progress in all activities, works best when an adult is not right next to him.	Special Educator & Teacher

The listing of activities that were successful for Daniel also launched a discussion of issues and concerns about successful participation. The teacher was able to see that peers should be an option for support rather than solely relying on an instructional assistant or the special educator. The teacher now had avenues to assure Daniel’s success in activities by providing pictures for him to use when offering suggestions to the class or in a partnership. For concepts that might be difficult to learn, hands-on activities would assure that Daniel would be able to grasp the concept most successfully. The use of rhythms and music were incorporated into classroom routines. Songs emphasizing the unit theme were taught to students as a way to reinforce concepts.

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A Reflective Decision-Making Process for Lesson Design

accommodate the student's needs. The Reflective Decision-Making Process³ guides teams to develop classroom lessons and units that promote the active participation of all students. This process was created through observations and discussions with teaching teams as they designed lessons. This process groups information into 6 categories with key questions to guide parents and educators as they consider different options in lesson design.

Category 1: Examine the demands and evaluation criteria of the task.

Teams first must define what all students are expected to learn from the lesson. Once that is decided, the team discusses if the student can participate in the activity as planned and reach the same goal. There are many times within a school day when a student is able to participate in lessons as they are originally designed. Examples might be whole class reading time or an interactive language arts lesson. Parents can help teams with this decision by describing the types of learning activities the student enjoys at home.

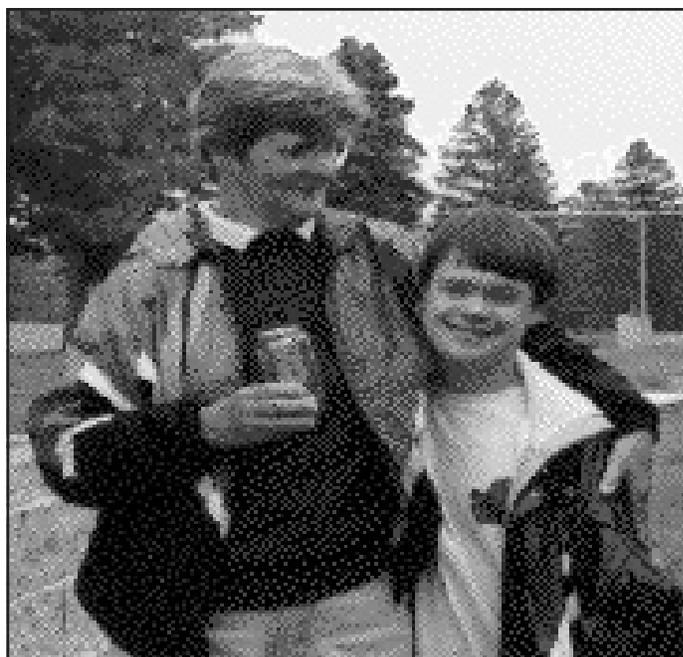
When the student cannot participate in the lesson as it is designed, the team discusses what changes in learning outcomes are needed. Modified expectations, or outcomes, enable participation in the lesson and meet individualized learning goals. By looking at this question first, team members focus on the learning needs of the student. This also assures that all educators involved with the student are aware of performance expectations and learning outcomes in the classroom.

Key Questions for Parents to Ask:

- ◆ Can my child reach all the learning goals for this unit or lesson? If not, what goals are realistic?
- ◆ Do we need to allow more time for my child to complete the lesson?
- ◆ Do we need to change how we evaluate the outcome or success for my child?

Category 2: Examine the structure of the instruction or how the lesson is presented to students.

Considering changes in the structure of the lesson creates opportunities to change how information is presented to all students. Changes in lesson structure might include: instructional grouping, lesson format, and student-specific teaching strategies. Other alternatives in grouping include: cooperative groups, student-directed small groups, and peer-partnerships. Use of these grouping by educators, these strategies have improved the active interest of students and enhanced interaction among classmates and the classroom teacher. Lessons that encourage hands on learning through group investigation, activities and games, simulations or thematic units promote student participation and facilitate learning concepts in a variety of methods. A final consideration in the structure of the lesson is the student-specific teaching strategies that will be used to personally connect with the student.



Dan Lucas, of Murrysville, PA, "shortens" to please his Grandmother.

3. Udvari-Solner, A. "A Process for Adapting Curriculum in Inclusive Classrooms" in Villa, R. and Thousand, J., ed. *Creating an Inclusive School* (Alexandria, VA: Association for Supervision and Curriculum Development, 1995).

Instead of completing the end of the chapter social studies questions at their desks, students in a sixth grade class are assigned to groups. Each group is to write four review questions each on a different sheet of paper. The change in grouping allows students to be mixed by level of ability so that each individual can participate appropriately and rely on one another as the task is completed. Students who have difficulty writing dictate their questions to a peer while other students glue pictures on pages containing an open-ended question format. When all groups have written their questions, each question is folded into a paper airplane and "flown" to another group. A question is received from each of the other groups. Members in each group read the questions, confer on the answers, and write a response. The question is flown back to the sending group. The sending group determines if the response is correct. The use of the paper airplane activity constitutes a change in lesson format. The teacher gave instructions one step at a time, to not overwhelm students with learning disabilities or those having difficulty processing the English language. For Joe, a student with intellectual disabilities, additional modifications were made. The teacher arranged for Joe to be the first in his group to generate a question. This allowed Joe to select a more general question from the text. Joe selected the topic of his question from a set of four pictures presented to him by his group mates.

Key Questions for Parents to Ask:

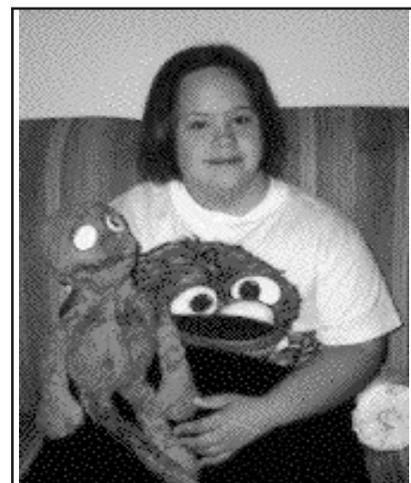
- ◆ Would it be possible to complete activities using peer-partnerships or a small group?
- ◆ How can activities create opportunities for students to experience the concept or be actively involved during the lesson?
- ◆ How do we assure that my child will stay engaged during large group activities?
- ◆ What student-specific teaching strategies will help my child understand the directions and sequence of the activity?

Category 3: Examine the learning environment.

It is important to consider where the lesson will occur as well as how students may be physically arranged while learning. For example, students may be seated on the floor, at desks, standing, or facing one another. It is also helpful to consider changes in the social rules of the classroom, such as raising hands to answer questions, so that all students may participate easily.

Key Questions for Parents to Ask:

- ◆ Where in the classroom and school does my child learn best?
- ◆ In what type of physical setting does my child learn best? Does it help to seat my child beside a peer or in close proximity to where the teacher usually stands?
- ◆ What physical arrangements in the classroom do we need to be aware of?
- ◆ Do students change desk location frequently? How might that affect my child?
- ◆ How long do students stay in one area or grouping each day?
- ◆ Describe the rules of the classroom. Do changes in how a child responds need to be considered? For example, alternatives to raising hands to participate.



Cathy Green, of Phoenix, AZ, clowns around with her pal,

Category 4: Examine the materials for learning.

All team members are familiar with the use of different materials to ensure learning. Modified materials are used to support the instruction and activity being completed by the rest of the class. Instead of creating complex modifications for every content area, modifications are developed for the skills needed in each class and lesson. These include: note taking, math, reading, writing, test taking and oral presentations. In the illustration about a group social studies lesson, Joe used a set of pictures to guide his thought process when deciding on questions with his group.

Key Questions for Parents to Ask:

- ◆ Will my child need enlarged materials on a page?
- ◆ Will my child need fewer items on a page?
- ◆ Do we need to provide alternative ways for my child to comment or make her needs known? This might include pictures, a voice output device or a tape recorder.
- ◆ Does the information need to be simplified?
- ◆ Does information need to be presented more plainly? For instance fewer distractions on a page or one question on each page.
- ◆ Have we provided modifications for all the skills needed in school; writing, note taking, test taking, math, and reading?

Category 5: Examine the support structure.

The purpose of specialized assistance is to assure that a student can successfully participate in the activity. Often, adults have had to provide intense one-on-one support because the design of the instruction or the materials were not matched with the student's learning needs. Designing lessons with specific learners in mind promotes learning with minimal adult intervention. It is important to use natural supports such as classmates, cross-age peer tutors, and volunteers to provide the assistance needed. A parent volunteer can be used to monitor the class while the teacher provides individual assistance to students during key times. Classmates can reinforce specific skills or demonstrate a concept they have learned to a small group.

Key Questions for Parents to Ask:

- ◆ Where will support be needed in this lesson? At the beginning, middle, end, or during key transitions times?
- ◆ Who could best provide the necessary support?
- ◆ When is it best for the classroom teacher to monitor learning rather than another student or parent volunteer?
- ◆ Can other support personnel, such as the speech pathologist, work effectively in the classroom?
- ◆ If a peer provides support, what information does the peer need? How will information be provided to the peer? How will the peer be encouraged and supported?

“

“The benefits are great for both special and regular education students [with special and regular education needs]. No matter how significant the disability, the child needs to be with children of his/her own age. Students in general education classrooms gain a better understanding of differences and build self-esteem by helping other students.”

Educator working in an inclusive classroom

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Category 6: Arrange an alternative activity that encourages participation and interaction.

Sometimes, regardless of modifications, a student will not be able to participate in the classroom activity. This is when it is most tempting to remove the student and work on IEP goals that are unrelated to the curriculum. The use of an alternative activity allows these students and a small group of peers to participate in activity-based or experiential activities. These activities are related to the curriculum content of the class, and are meaningful and age-appropriate for all students involved. The use of alternative activities shows the benefit students gain from applying information in real life situations. Teachers can link classroom instruction to every-day-life through the use of alternative activities.

Key Questions for Parents to Ask:

- ◆ Are there student-specific goals from my child that cannot be met with classroom activities?
- ◆ What types of alternative activities with real-life applications could be used for those goals that benefit all students in the classroom?

Jeanine is an eleven year old fifth grader. Her goals include increasing interactions with others and functional skills in the areas of reading and math. She may go off the school grounds into the community two times a week to accomplish these goals. In addition, she is learning the routes to various community businesses and is expected to demonstrate safe traveling skills. She is also beginning to explore various career options available in her community.

Each time Jeanine goes out into the community, she is accompanied by two or three classmates. The groups' assignment changes with the primary unit of study in the science curriculum. It may include one of the following activities: purchasing supplies for an upcoming science experiment, surveying business owners about recycling procedures, or conducting a nature study about foliage in a neighboring park. The students plan their activity and divide the work load before leaving the school. The special educator and classroom teacher assure that assigned tasks are linked to classroom content and curricular goals. Jeanine's specific tasks are related to one or more IEP goals.

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One Parent's View

While I do not believe in a one-size-fits-all curriculum, I am happy so share what our son is doing in middle school. Daniel is 15 years old. He attends a "regular" school. He has 5 classes in regular education with adaptations. He spends two class periods in the Resource Room. We chose to have Dan work on math and reading in the Resource Room because we believe them to be building blocks to other essential skills. The curriculum in the Resource room is also adapted to fit Dan's individual needs. His program centers around daily activities such as shopping, getting to class on time, and future needs like balancing a checkbook.

His IEP also focuses on a specific set of activities that reinforce his mainstream classes. For example, if the science class is studying the periodic table of the elements, Dan is studying the elements that he can solidly deal with. These might include Salt (NaCl) and Water (H₂O). The other students are expected to learn the entire periodic table. Dan learns a portion of it. When he gets to spelling class, the words have been pulled from his other classes so that the curriculum has some consistency. For instance, while he is learning about elements, his spelling list will contain the names

of the elements he is to learn on the periodic table.

Dan's tests are adapted for his needs as well. If the other kids are doing a four paragraph summary, Dan may only need to write one paragraph with spell checking on the computer. The adaptation doesn't have to be anything more drastic than reading a test aloud, eliminating the essay questions from his possible total points, or having a reading teacher spend his study hall with him.

In the beginning, all the teachers have the same question: "What if I screw up?" My answer has always been the same: Dan did not come with a manual when he was born. Sometimes I screw up, too. If it wasn't done in malice, and everyone learns from it, we move on.

In my mind, adaptation is good for all children. Individualizing teaching to benefit each child is ideal. Most of Dan's teachers have come away from his classes with a better understanding of how to teach all children, not just those with disabilities.

Karen Lucas, Murraysville, PA

Strategies for Documenting Effective Adaptations

After the lessons are designed and used, it is important to have a plan to document which strategies were successful with the student. To do this, parents and educators must foster a spirit of teamwork and equality. Parents possess a life-long investment in their child's future. They need to present to educators a long-term portrait of the student. It is important to be able to document strategies that have been successful. With this information, success can be repeated and expanded upon in a variety of learning situations.

Parents and educators can share successful strategies with one another by documenting:

Alice Udvari-Solner, Ph.D., is an Assistant Professor of Education with the University of Wisconsin-Madison. She is the principal investigator of a federal research grant examining how the design and use of effective curricular adaptations influences the participation of students with disabilities in general education.

Julie Frentz, M.S., is the director of the Curricular Adaptations Project through the University of Wisconsin-Madison and Madison Metropolitan School District.

- ◆ instructional arrangements and lesson formats that promote participation and learning,
- ◆ successful student-specific teaching strategies,
- ◆ alternative activities that reference the curriculum,
- ◆ strategies that enable the student to demonstrate her knowledge.

A collaborative relationship between parents and educators provides a positive learning environment for students with disabilities that accommodates different learning styles. It also enhances the learning of all class members. By sharing a common commitment to improving educational experiences for all learners, their collaborative efforts produce positive and productive learning activities for the entire class.

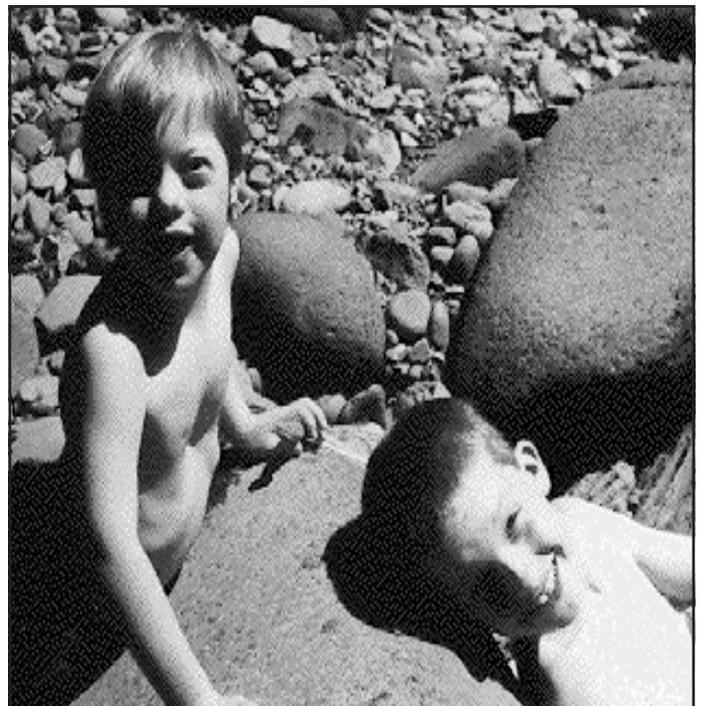


Looking for a few good writers and critical thinkers

Based on the responses sent in from the first issue, Reviews of books, toys, software, hardware, programs, and everything else are of great interest to the readers of Disability Solutions. We would like to have the best people for the job do these reviews: parents!

The best reviews are truthful ones. They need to recognize the weaknesses, even dissatisfaction, as well as what is good about a product. The goal is to assist others as they look for things that may be helpful to them. To do this, reviewers must think critically, write clearly, and be a kid at heart.

If you are interested in becoming a part of a network of reviewers, please contact Disability Solutions by letter, phone, or e-mail. This is an exciting project with many possibilities; a chance



Ideas from Parents Across the Nation

I would like to share a good idea my daughter's Educational Assistant thought of. She is included in Kindergarten this year.

The classroom has a trolley (a cupboard on wheels), with my daughter's name on it, full of materials and supplies. In the trolley, they have set aside an area for activities and resources they can turn to if the activity is too difficult for Helen. These activities include: letter tracing, pre-writing activities, matching letters, and simple number games. All are activities Helen has done well with in the past.

The teacher and the assistant assume that Helen will join in the classroom activity. If she is unwilling or unable to, there is an available source of activity that is relevant to Helen's curriculum.

This seems to take pressure off the assistant and the teacher to think on their feet when Helen is having trouble with an activity.

Emma Firman, West Newbury, MA



We use a flatbed scanner to input assigned pages into our home computer. After we convert the text, we transfer it into Word Perfect. We then modify the text to meet Mitchell's needs. First, we change the typeface to an easy-to-read font (serif fonts are the best). Then, we increase the font size, line spacing and remove the columns.

We delete the text and graphics. The classroom teacher tells us what we don't need. We also use the bold and underline features to highlight important ideas and concepts.

After a paragraph or two, I will type in a couple of questions that ask about the main ideas in those paragraphs. This ensures he is grasping what he reads before he moves on to more material.

We make sure the margins are wide so he can make notes to himself. He also uses yellow and red markers as high lighters. This becomes a useful study guide. It allows Mitch to concentrate on what he needs to learn and reduces a number of things in the material that might distract him.

Linda Rowley, Mineral Point, WI



A good friend of mine has a daughter with Down syndrome. She has always been included in regular classes with adaptations. Some years are better than others. Some of the adaptations they use routinely include:

- Calculators for math.
- An extra set of textbooks for home.
- Sharing another student's classroom notes. The teacher makes copies for her.

The teacher makes a study guide for tests. She highlights what will be on the test. Usually the teacher also makes copies of the textbook and highlights what she should study from there.

Mary Wilt, Virginia Beach, VA

A Living Book by Broderbund was just the thing for a recent 3rd grade book report assignment in an inclusive placement. Using a screen capture program on the computer, we captured images from "pages" of the Living Book. We pasted these captured images to our computer's paint program. In the paint program, we isolated characters from the pages to help write the report. Some images were printed in black and white for my

daughter to color.

This process is also good for creating mobiles, posters, or to use to answer questions on a classroom worksheet. For example, the worksheet asks: "Who is the main character in the story?" My daughter can paste the picture of the character we printed for this process.

Kimberly Voss, Tulsa, OK

I work in the Computer lab of the school my daughter, Cathy, attends. In Cathy's English class this year, they spent the first few minutes of each class writing in their journals. Cathy needs more direction than to be told to open up the journal and write something. She wrote the same thing everyday.

I met with one of Cathy's past teachers to brainstorm ways to guide Cathy's thoughts for writing in her journal. We created Cathy's very own journal. We bought a folder and decorated it. I used Print Shop Deluxe (a computer program) to create pages to put in her folder for each day. These pages had "prompts" on them. Cathy's old teacher and I poured through books on creative prompts for journal writing. Along with the prompts, I would add graphics to the page. Some of the pages had no prompts or graphics, just short sentences of instruction.

Cathy was to do one page each day. It wasn't important how much she wrote. However, she was required to write at least 2 complete sentences. There had to be a Capital letter at the beginning of the sentence and a period at the end.

It worked great for her. Each day she would go over it with her assistant and talk about what she wrote. The assistant would grade the work for sentence structure and content.

Mary Green, Phoenix, AZ

Resources

Books

Oelwein, Patricia. *Teaching Reading to Children with Down Syndrome: A Guide for Parents and Teachers* (Bethesda, MD: Woodbine House, 1995). 800/843-7323 \$16.95

The strength of this book is its practicality. The information goes beyond philosophy to provide ready-to-use activities that can build reading skills.



Falvey, Mary A., ed. *Inclusive and Heterogeneous Schooling* (Baltimore, MD: Paul H. Brookes, 1995). 800/638-3775 \$32.00

Build upon discussions of both general and special education reform, this book presents methods for successfully restructuring classrooms to enable all students, particularly those with disabilities, to flourish. Includes a section on "age-specific instruction."



Stainback, Susan and Stainback, William, ed. *Inclusion: A Guide for Educators* (Baltimore, MD: Paul H. Brookes, 1996). 800/638-3775 \$32.00

A resource explaining how to make inclusion work. The book provides tools and techniques for educators to transform classrooms into places where all students succeed. Includes a section on curricular adaptation.



Thousand, Jacqueline S., Villa, Richard A., and Nevin, Ann I., ed. *Creativity and Collaborative Learning: A Practical Guide to Empowering Students and Teachers*. (Baltimore, MD: Paul H. Brookes, 1994). 800/638-3775 \$37.00

This book provides research-based teaching strategies, sample lesson plans, and illustrative case studies. Hands-on instructional materials are also

Chalmers, Lynne, Olson, Myrna, and Wasson Barbara. *Modifying Curriculum for the Special Needs Student in the Regular Classroom* (Moorhead, MN: Practical Press, 1992). 218/236-5244



provided to help educators meet their students varying needs.



Tien, Barbara and Hall Carol, ed. *Teaching Strategies for Children with Down Syndrome: A Resource Guide (K-6)* (Ups and Downs, Calgary Down Syndrome Association and the PREP Program, 1001 - 17 Street N.W., Calgary, Alberta T2N2E5, Canada, 1995). \$15.00Cdn 403/289-4394

A collaborative effort between the Ups and Downs, Calgary Down Syndrome Association and the Preparation and Readiness for Entrance Into Preschool Program (PREP). This guide provides "practical advice, helpful hints, and problem-solving strategies to effectively teach children with Down syndrome."

From the Internet

Ministry of Education Skills and Training, British Columbia, Canada. (<http://www.educ.gov.bc.ca/specialed/welcome.htm>)

This site hosts a variety of resource guides for including students with disabilities as well students who are talented and gifted. Of interest and available for printing is *Students with Intellectual Disabilities: A Resource Guide for Teachers*. (<http://www.educ.gov.bc.ca/specialed/www/sid/contents/html>)



The Family Village, Waisman Center, University of Wisconsin. (<http://www.familyvillage.wisc.edu>)

This is a one-stop spot for information and resources on all aspects of life for families of and individuals with disabilities.



Software Review

Broderbund's Living Books: For the Child in All of Us

Reviewed by: Kimberly Voss

Broderbund Living Books. Random House/Broderbund Software. \$33.00 - \$40.00. 800/776-4724.

As a child, I wondered what it would be like to somehow fit into my father's model train set as it went around and around the track— becoming small and stepping into another world. If you've ever imagined such an experience, climb aboard; Random House/Broderbund Living Books may be your ticket—and your child's!

Graphics, Sound, and Animation

Like a page of Hidden Pictures in a Highlights magazine lying around the dentist's office, Broderbund books are also filled with many "hidden pictures." In Broderbund's Living Books they are animated. As the name implies, "Living Books" are books "where characters and objects come alive and bring a whole new dimension to story telling." You won't find that in a magazine.

Living Books can be set for an individual to "read" only or to "play" on the pages inside the book. When it is set on "read only," the text of the story is spoken by one of the characters or by a narrator. When it is set to "play," each page/screen is filled with surprises. When different characters or objects are selected, they are activated and come to life. For example, when Little Critter is selected, he is gobbled up by a beach umbrella in *Just Grandma and Me*. In *Arthur's Teacher Trouble*, when Arthur's teacher's jacket is selected, it changes from green to yellow with purple polkadots, to a wild plaid, to tiger stripes. Each screen is chocked-full of fantastic graphics, sound, and animation. It takes some effort to be certain that you have found all the hidden animated objects and characters on each page. It is a great example of "cause and effect" for early computer users. Living Books are not frustrating because there is no right or wrong response. This is a great opportunity to freely explore without judgment.

Find that on an IEP!

For children with disabilities, access to new language experiences can be difficult to come by. Living Books allow children to explore many different worlds; a visit to the beach, a race in the forest, life in a treehouse. With Broderbund Living Books, stories can be heard over and over again. Words are highlighted as they are spoken by the computer. This provides a wonderful sight word and vocabulary builder.

Working together, it is difficult to miss an opportunity to activate something. Parents sitting alongside their child can work on identification of objects by asking them to: "Click on the..." or "touch the..." with reinforcing animated results. More advanced readers can be asked to find specific words in the story. When the word is selected, it is spoken by the computer.

Broderbund Living Books do not require using the keyboard—no space bar, arrow, or return keys are needed. The click of a mouse is all that is necessary. With the addition of a Touch Window, the reader can select the object or character simply by touching the screen.

Another "alternative access device" is the IntelliKeys, an adaptive keyboard. IntelliKeys works with all Macintosh and IBM software. They come with 8 standard overlays. In addition, IntelliKeys has created Living Books Instant Access Sets that correspond to the Living Books series. This provides another way for children with more limited physical, visual, or cognitive capabilities to use the computer successfully. IntelliKeys can also be set up with a simple switch if appropriate.

What Titles are Available?

Available in CD-ROM format for Windows/Macintosh, the titles include: *Ruff's Bone*, *Just Grandma and Me*, *Arthur's Teacher Trouble*, *Arthur's Birthday*, *Harry and the Haunted House*, *The Tortoise and the Hare*, *The New Kid on the Block*, *Little Monster at School*, *The Berenstain Bears Get in a Fight*, *Dr. Seuss's ABC*

Down Syndrome Quarterly

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, and the newest book, Sheila Rae, the Brave. The various books are appropriate for a range of ages from Grades PreK to 6.

Personal favorites include Just Grandma and Me, The Tortoise and the Hare, and Arthur's Teacher Troubles. It would be difficult to go wrong with any of them. The least visually appealing is The New Kid On the Block. It is primarily in black and white, with fewer interactive pages that the other Living Books provide. However, with 17 poems, this is the only book that provides extensive rhyming. Its wacky poetry by Jack Prelutsky may tickle the funny bone of a child who has a more mature sense of humor.

There are many ways to keep the fun coming after the computer is off for the night. Living Books come with their own version of a paperback book. My daughter came home with a cassette taped version of Arthur's Teacher Trouble from her favorite book store. We also found The New Kid on the Block taped book cassette at the public library that we listened to at night in bed.

What Do I Need to Use it?

Living Books require a MAC LC or larger or PC, with 4 MB RAM, color monitor, mouse, hard drive and CD-ROM.

You'll find yourself up after the kids go to bed to "play" with these books because you'll have trouble snagging a turn. Living Books are great to leave a child to explore when you are trying to find a few uninterrupted moments to throw dinner together.

Where do I find all this?

Living Books are available in many software stores and catalogs. Many are now bundled in pairs or sold in buy one get one free offers.

Living Books are also sold through Educational Resources. Also available is The Living Books Framework with teacher materials. 800/624-2296.

Edmark TouchWindow. Edmark Corporation, 800/362-2890. It is also available in many catalogs or computer stores.

IntelliKeys, and overlays. IntelliTools, 800/899-6687. IntelliKeys is also available through various catalogs.

Down Syndrome Quarterly (DSQ). Volume 1, Issue 1, March 1996. Samuel J. Thios, Ph.D., Editor. Down Syndrome Quarterly, Samuel J. Thios, Granville, OH 43023. Individual Subscriptions: 1 year, \$24.00, 2 years, \$45.00. Library/Organization Subscriptions: 1 year \$48.00, 2 years \$90.00.

I have always relied on the medical library in hospitals where I work for research information related to Down syndrome. This involves reading through large indexes for each month to search for studies, or asking the librarian to do a literature search for a specific topic. This is a cumbersome task which is not readily available to all parents. It seemed that there was a gap in publications regarding Down syndrome.

Down Syndrome Quarterly (DSQ) fills part of that gap. This publication presents original research, position statements, information regarding future research, and an exhaustive list of abstracts from other journals that relate to Down syndrome. It is the most comprehensive journal of research issues related to Down syndrome available. For instance, if you are interested in effective methods of teaching speech skills, the research article Comprehensive Speech and Language Intervention for School-Aged Children with Down Syndrome might be helpful. Also, the Abstracts section DSQ lists three articles of related topics from other professional journals: Phrasing in Prelinguistic Vocalizations, Nonverbal Communication and Early Language Acquisition in Children with Down Syndrome and in Normally Developing Children, and Down Syndrome: a Multidisciplinary perspective. In two minutes, you have a good start on gathering clinical research.

DSQ has an impressive Editorial Board; filled with professionals who work with individuals with Down syndrome on a regular basis. DSQ is also what is called a "peer-reviewed" journal. This means that research published in this journal is anonymously reviewed by other professionals for details such as accuracy and research design. For the scientific community, this brings validity to the statements and research presented. And, for some disciplines, reading these articles can be used as Continuing Education Credits; There's an incentive to read it!

Because DSQ is written with professionals in mind, it may be hard for nonprofessionals to read and understand. It is also difficult to pull practical applications for home out of scientific research studies and position statements. Yet parents will be a key part of getting the word out to professionals about this resource.

Research, position statements, and comment in a peer-reviewed journal brings validity to teaching strategies and medical practices that parents wish to present to professionals. DSQ is the first of a useful and much needed resource for individuals seeking credible, easy-to-find information regarding current practices and research related to Down syndrome. It is an invaluable resource to physicians, allied health professionals, educators, families, and others interested in Down syndrome.

Life is an Open Book Test

by Mindy Campbell

Life is an Open book test. You may look up the answers as you go along; but you need to look, ask, and remain open to learning. This is true for the parent and the professional in education.

I had been teaching in special education for more than 15 years when I began to work with Joey and his family. I was experienced, confident, and knew I had skills and information to offer this family. I visited weekly and we all watched Joey progress. At 18 months or so, he seemed a bit stuck in the language area. We tried many things from my professional “bag of tricks.” Joey’s Mother, Andrea suggested what might motivate and interest him. We discussed how each new attempt helped or why it didn’t seem to work for Joey. Andrea read a variety of publications regarding Down syndrome, Joey’s diagnosis. Some I provided, many she found. Andrea asked about sign language for Joey. She wondered if it would help him. I was aware of some children with Down syndrome using signs but was not sure of the appropriateness for Joey, or the prerequisites. So we brought in the related services specialist, a speech pathologist. She evaluated Joey and suggested we try concrete objects and some different techniques. Andrea and I checked some additional information and discussed the pros and cons at length. Relying on her knowledge of her son and our perceptions of what Joey understood, we decided to try sign language.

Joey began to use “more” the first time we introduced it in a play situation. Signing opened the door for Joey to communicate and continues to be a part of his communication mode.

When Andrea suggested signing, it could have been intimidating to me. I was the “early intervention specialist”; if he needed signing shouldn’t I have known and suggested it?

I respect parents and I respect their questions. If the speech pathologist suggested something else, shouldn’t we only do what she suggested? Yet the other techniques did not seem to make significant gains.

What are our roles here? Instead of “dividing” Joey’s development into bits and pieces for specific

therapies, we worked as a team of professionals and parents to support his overall growth. Andrea and I had a well-established partnership in place even before the language development became an issue. She participated actively in the home visit. She listened to, as well as suggested ideas or variations she thought might be appropriate for Joey. She reviewed and shared written material. She provided important information about Joey.

Professionals bring experience, knowledge of the field, and access to a variety of resources. We also need to be open to new techniques as well as variations on valued interventions. We need to make time to read the professional literature and not leave it sitting by the night stand. We can also share that information with some parents and give them an opportunity to reflect on any relevance to their child. We need to continue to learn no matter how many years of experience we can claim with pride.

Parents bring knowledge and a focus of their specific child that professionals will not have. I value that Andrea was able to offer the suggestion of signing. It would have been easy to assume the specialists would tell her what she needed to know. We established a pattern of interaction early in the intervention. I did not present what she should do, but suggested ideas from which she could choose. I solicited her ideas. She quickly recognized her ability to use or adapt ideas into her parenting. She was able to reject ideas and explain why they did not work for Joey. Andrea has continued to seek new information to help both of her children develop their potential. She uses multiple resources, including computer technology, to be an active participant in the education of her children. She now has six years “experience” in special education to offer her child, her family, and her peers: the personal and educational ones.

Life is an open book test. If we remain open to life long learning, we will find many answers and much new information.

Mindy Campbell, M.S., is the mother of two children. She is an Early Intervention Specialist with Portland Early Intervention Program and resides in Portland, Oregon.

A Note from Our Readers

Dear Disability Solutions:

This tandem bike is our solution to our bike riding problem. We have four children. Katie is 12, Garrett 9, Joe 5, and Max 2. Both Kate and Max happen to have Down syndrome. We live in a small town and we all love to ride bikes, but Katie has never really been able to master a two wheel very well. She also had her C-Spine fused in 1991 and it is no longer fused, so we would not be able to let her ride alone right now. She also has a heart problem and needs exercise, so this is a wonderful solution.

A note of warning: Tandem bikes are rather expensive! We ran an ad in a large newspaper for two weeks to see if we could find a used one, and we did not get one reply. But for us, it has been worth it!



Nancy Lancelle, Denmark, Wisconsin

Research on Learning Language: Can You Help?

My name is Mia Peterson, and I am 22 years old. I work at the Hy-Vee Grocery Store and Deli in Webster City, Iowa. I have a friend, Dr. Laura Meyers, who had this idea to do a research project on how people with Down syndrome learn language. She wanted someone with Down syndrome to do the research. I got really interested and said I would like to be her researcher. We wrote a grant for the money to do the research.

I am using a survey to ask people with Down syndrome what has helped them to learn language the most. It asks questions about what it was like when you were a little kid and what it is like now. Here is a sample question: "What was it like when you were a little kid for understanding your family and friends? Was it the worst, hard, easy, or the best? My answer would be the best, because I had to learn how to communicate when I was little to be able to

talk. My family and friends were the people who taught me to do that. I had to understand them and I wanted them to understand me. That's why I picked the best.

If you know someone with Down syndrome who would like to fill out the questionnaire, or have a question, you may call, write, or email me.

Thanks!

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Editor's note: The questionnaire will be available with this newsletter on the Disability Solutions web page. (<http://www.teleport.com/~dsolns>)

Disability Solutions

A Resource for Families and Others Interested in Down Syndrome and Developmental Disabilities

Editor, Joan Guthrie Medlen, R.D., L.D.

Disability Solutions is published four times a year by Creating Solutions.

Creating Solutions is a project of The San Francisco Foundation Community Initiative Funds (TSFFCIF), a 501(c)3 public charity, our fiscal sponsor.

Subscriptions

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TSFFCIF, Creating Solutions
ISSN: 1087-0520



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