Walking the Path with the Twice Exceptional Learner

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Introduction

In this film, we will listen to a range of people sharing their insights and experiences about what it means to be "twice exceptional", that is, to demonstrate accelerated achievements in some areas and to face learning difficulties in others. We will hear the perspectives of internationally known, Johns Hopkins University/Kennedy Krieger Institute neuropsychologist, Mark Mahone; a prominent speaker and activist on learning disabilities, Jonathan Mooney; developmental cognitive psychologist, Dr. Katharina Boser; and local educational consultant, Fran Bowman.

In addition, we will hear from Howard County , high school teacher, Lisa Kump and Special Educator, Vicki Jackson; middle school teacher, Henry Ward; and elementary school teacher, Gavin West. From these hard-working and passionate professionals, we will glean insights about the psychological, neurological and educational dimensions of working with bright students who learn differently.

Also, we will hear about the personal challenges and triumphs of living with the paradox of twice exceptionality from Hiroko Nishimura, a high school student, and Spencer Beecher-Deighan, a university student as well as several parent-child pairs. These include: Page Rush, a lower school student and her mother, Laurie Rush; Julie Kuhn and her mother Susan; Eric Mekelburg and his mother Meg; Owen Budd and his mother Trish; and Alexander Booth and his mother Katharina Boser.
(See the biographical sketches at the start of this manual to read more about the persons interviewed in this film.)

The Paradox of Strengths and Weaknesses: (time 9:45)

To discuss what it means to be "twice exceptional" is to catalog a list of perplexing paradoxes; the students, themselves, as well as the parents and teachers who care so deeply about them, may find it difficult to understand fully the apparent contradictions inherent in the intellectual life of such students. For example, as our teachers note, a student may be demonstrate strong abilities in one subject area while struggling in another Also, as noted by Mr. Ward, students will often "be poor in a subject at one point, and then later on they may take off and become proficient in the very area that appeared to be so difficult." Another contradiction is that highly articulate students may seem not to follow what you are saying to them. Often such students experience auditory processing problems where language is not understood under 'high noise' conditions. As Paige, who has auditory processing problems explains, "When there is too much background noise or several people are talking at once it is only a bunch of words."

Performance on standardized intelligence tests reflects these contradictions. Often students with I.Q.s in the superior range will receive only average grades. Similarly, the same student may test in the upper tenth percentile in one section of an intelligence test and in the lowest 10 percentile in another. As Ms. Susan Kuhn notes, "If one looks only at IQ subcomponents; they cancel each other out." What people may find most curious is that twice-exceptional students often excel in the more theoretical and creative aspects of

any subject while they may be stymied when asked to put even simple thoughts on paper or carry out "simple" clerical and computation tasks. Both the teachers and students interviewed reflect on how twice exceptional students are often extraordinarily talented in speaking eloquently or in creative artistic expression.

In the area of written expression, there are remarkable paradoxes. Teachers may have difficulty understanding how a student who is highly verbal in oral expression, possessed of a rich vocabulary and creative ideas may turn in sparse writing assignments riddled with grammar and, especially, spelling errors if, indeed, they turn in the assignments at all. As Eric Mekelburg notes, "I can pace around the room and produce 10 pages of a research project but when you tell me to sit down and write it, I'm done after one paragraph."

Other areas of neurological weakness experienced by many twice-exceptional students are in the areas of executive function (influencing organizational abilities) and short term memory. As young Alexander notes, while he is a wonderful poet, when it comes to writing about facts in a story, "I can't keep the facts in my memory long enough to get them down on paper." English teacher, Lisa Kump talks about her English students who do poorly on expository essays but do really well on creative writing and oratory.

How do we understand these mystifying contradictions? The answer lies in an understanding of how the brain is wired in such twice-exceptional students, an understanding that has grown exponentially with the development of brain imaging technology. In this film, Johns Hopkins neuropsychologist, Dr. Mark Mahone explains the etiology of the condition of being twice exceptional: "Part of brain is very efficient and another may not be so." "The writing process is particularly challenging because it is one of the most integrative functions the brain has to perform," according to Dr. Mahone. The writing process requires not only the ability to be creative (usually a strength for TE studetns), but also the ability to be well-organized, to have a good working memory, and to have fluency in the physical act of writing and in the mechanical aspects of composition. Many twice-exceptional students, diagnosed with ADHD, or with a learning disability such as dyslexia, are more likely to have trouble with tasks that involve many disparate integrative functions; writing is such a task. Alex and Spencer talk about how the organizational challenges of expository writing baffle them even as they have marvelous imaginative abilities.

Yet, according to writer, lecturer, and activist, Jonathan Mooney, the strengths are predicated on the weaknesses. The areas of the brain that are more highly developed go along with those that are comparatively less developed. These areas of strength lie in creativity and often "outside of the box" thinking. Students and teachers tell us there is often one area in which twice-exceptional students excel; these student's remarkable strengths are often in hands on activities, making things, and imaginative work. Trish Budd describes her son in this way: he has a "wacky sense of humor" and "the need to create is a driving force for my son." The very talents and strengths of the twice-exceptional student may be the source of frustration for the students and parents as well as for their teachers.

Dr. Mahone notes that we must be careful not to expect that the student be able to perform as high in all areas as he or she does in her highest level of performance. As Dr. Mahone urges, we must not expect that because a child is superior in Math, he will be competent in English nor should we assume that a child who is a brilliant story-teller can

write a competent expository paragraph; each of these skills may rely on entirely different parts of the brain. As Jonathan Mooney concludes, our intellectual strengths may indeed, "be a direct result of the weaknesses."

Characterizing Twice Exceptionality: Prevailing ideologies and myths –(time 7;18)

Diagnostic tests are available to pinpoint areas of dysfunction; however, as Dr.Mahone points out, many diagnostic tests are notoriously flawed. First, Dr. Mahone argues the neuropsychological tests used to diagnose someone with a psychological learning disorder are among the least specific in the medical field. The diagnosis of a learning disorder is not comparable to a diagnosis of diabetes. Rather, people experience learning disorders on a continuum and the requirement that one have a specific set of six symptoms for classification as a disorder is somewhat artificial. One student in a class may have all six symptoms of, for instance, "auditory processing disorder" and thus labeled with this disorder. On the other hand, the student next to him may have only five of the symptoms and, therefore, not be so labeled. Clearly, both students probably need similar interventions. In addition, many students with learning disorders do not receive testing and, therefore, we cannot assume that they do *not* have learning difficulties.

To understand the anomalies in our neurological structures better, we can consider how in autism, a student with a "savant" syndrome may show extraordinary ability in one area and yet be virtually incapable of tying a shoe. Dr. Boser notes this kind of "scatter"—a term to describe areas of great strength coupled with areas of great weakness in brain function –also describes twice-exceptional students. Dr. Boser describes her own child as having such paradoxes in his intellectual life; while Alex, a third grader, might read three or four sophisticated novels a week, he will be stymied by the instruction to complete a brief math page.

In the light of diagnostic limitations, Dr. Mahone and others urge teachers and parents to look carefully at all students both "on paper" and in the context of their classroom performance, figure out what the student needs, and provide interventions accordingly. Middle school teacher, Henry Ward, concurs that teachers must both closely examine the test scores and evaluate what the student seems to need by his classroom behavior: "it's a balance." Behavioral diagnoses—unlike medical tests—are not very precise.
For example, ADHD is not a unitary concept; it presents very differently in different learners. The observed patterns of strengths and weaknesses, and not a diagnostic label must drive the intervention, according to Dr. Mahone.

The Masking of Strengths and Weaknesses (time 5:26)

Again, "paradoxical" best describes the academic work of students who demonstrate twice-exceptional behaviors. Interestingly, the students' strengths often mask their weaknesses. For example, Julie Kuhn shares how she was able to mask her poor reading ability with her excellent verbal skills. She shares how she memorized stories and was able to convince her teachers that she was reading.

Many of our interviewees share the confusion that can result from such huge differences between understanding and performance. For example, Ms. Mekelburg shares the odd trajectory of her son's math placements: Eric (with high aptitude in Math) was placed in a remedial Math group because of low performance" on a placement test—wherein he could not "get down" answers in a timely manner. Next, when someone wrote for him, he performed so well that he was transferred from the remedial to the Gifted and Talented Math group!

Often, the students' weaknesses in performance mask their strengths in conceptualizing and reasoning. Dr. Mahone explains this paradox because of students' neurological differences with respect to the ability to achieve "automaticity" in the fundamental tasks of reading and, especially, of writing. The brain likes to be automatic and most people gain automaticity in reading and writing early in their intellectual lives, freeing up the brain to concentrate on performance in a subject. However, students with disorders in written expression have great difficulty with written tasks, whether in Math or in Language Arts. These students may use all their mental energy trying to form letters or numbers in an organized and correct fashion, leaving them little time and energy to demonstrate fully all they know on paper.

Understandably, teachers as well as parents and students themselves, are often frustrated by these contradictions. However, once one understands how these "maskings" can be explained neurologically, one can gain more insight into students who show twice-exceptional behaviors. As Henry Ward notes, it is helpful to think of Albert Einstein, who was unable to communicate intelligibly and to do simple computations on paper in school, and who "turned out to be one of the most brilliant minds of all time."

.**Parents and the Twice Exceptional Student (time 6:49)**

Parents talk about the process of adjusting their initial expectations of a "normal" child who would sail through school. Trish Budd was very surprised when her child was challenging as a baby and then remained challenging as he grew up. Many such babies do not seem "comfortable in their skins."

Laurie Rush reveals how her son seemed to be very precocious as a toddler, able to speak in multiple sentences before other children, curious and happy. She thought she would have a child who would grow up with a book in his hand at all times. However, despite his precocious oral verbal skills, he struggled and continues to struggle with the process of reading and in 11th grade, despite being very bright; he has never finished a book. Laurie describes the heartbreak of seeing her bright, sunny child enter school and become unhappy.

The students and parents discuss how it is imperative that "different learners" have parents who are advocates and "cheerleaders" for their children. Because many parents of learning disabled students have the same disabilities, the parents are not always the

best tutors for their children and they must hire professionals. However, parents must advocate and encourage their children. Eric Mekelburg talks about how his mom assured him constantly that life would get easier.

Julie Kuhn says that she has an appreciation for the instrumental role that her parents played in her life in a way that the average child does not. She reflects upon how she and her parents would problem solve obstacles together. Also, while her friends' parents might reward their students for each "A" received, her parents would reward her for "trying her best" and the reward would be expressed in spending time together.-- doing fun things. In this way, Julie grew up feeling very supported and with the right values about both hard work and rewards for that hard work.

Educational consultant, Fran Bowman, urges parents to remind their students that their report cards do not measure their worth as a human beings and that a quality such as loyalty to your friends is very valuable and, yet, not measured on a report card. Laurie Rush concludes by saying that parents can also share their wisdom about what it can mean to be a "different thinker" in our culture. While "out of the box thinking" can cause frustration when it is "out of sync" with that of others in our society, still-- such creative abilities should instead be cherished and "celebrated."

Labels and emotions: How does it feel? (10:17)

The *identification* of a learning disorder can both point the way to correct remediation and offer a sense of relief to students and their parents and teachers. Often, people find it liberating to learn that the student has unique neurological strengths and weaknesses and is not simply "lazy or dumb." Fran Bowman talks about how when, after testing, she has told students that they have the syndrome of "dyslexia," they will respond, "I am so relieved."

However, labeling can have pernicious effects if that label implies "who the person is." The students and parents in our film share the emotional pain of stereotyping and segregation from classmates who often say unkind things because of ignorance about learning disorders. Susan Kuhn describes how a teacher told her husband, also dyslexic, in middle school that he would not ever go to college. He is now a physician; however, the doubts engendered by that teacher linger today.

Julie Kuhn describes the effect that going to special education services had on her-- given the cultural climate in her school. She notes, "I was put in a special ed. room. I hated that. So patronizing, going down that hallway." Because of her enlightened understanding, Julie was anxious to show her classmates that her supposed weakness was in fact strength. She was able to say to friends who said to her, "Oh, you are going down that hallway" that "Yes, I am dyslexic and I am going down that hallway and some people going down that hallway are smarter than you are."

Jonathan Mooney, who grew up feeling "that my mind was broken" because he could not read until he was 12, implores us to build the self-confidence of our children: "You have to keep telling the student, 'you are not broken.'"

The Myth of Laziness: The Neurobiology of Executive Functions (Time 10:51)

For many bright students with learning differences, weakness in the area of "executive function" impedes not only academic performance but also the students' efficiency in

carrying out all every day tasks and routines required in school. Neuropsychologist, Mark Mahone , defines "executive function" as describing "those behaviors related to developing or implementing an approach to undertaking a task or solving a problem."

Students with impairments in "executive function" often cannot "plan and carry out" such essential routines as remembering to write down homework assignments, planning to bring required books home, scheduling the appropriate amount of time to carry out each homework assignment, and planning how much time to allot to each section of an in class essay test, for example. Executive Function issues, therefore, are pervasive impediments to success, even when a student is extraordinarily bright. A student reflects that teachers who observe these "sloppy" and "absent-minded" behaviors may understandably jump to the conclusion that these students are lazy or need to "try harder."

Many teachers have a hard time not misinterpreting why a child is not finishing and are quick to judge, when, in fact, a child might be either trying their hardest or so overwhelmed at the effort needed that they 'give up' without trying (learned helplessness). A parent describes the emotional impact that a teacher's lack of understanding had on her child: "the teacher didn't understand why he couldn't finish, and boy did that feeling get across."

Related to executive dysfunction are problems with "working memory" deficits wherein a student may not be able to hold a sequence of ideas or steps in his or her head long enough to carry out the assignment in an efficient way. In addition, a student may appear not to listen to the questions posed by a teacher when he or she asks the teacher to repeat the question. However, the student may have heard and understood the question but, in the intervening minute since the teacher first posed it, the question itself has slipped out of his memory. Once reminded of the question by the teacher, the student may be able to give an excellent answer.

As Dr. Mahone notes, often related to executive dysfunction are manifestations of attention deficit/hyperactivity disorder. If a student experiences symptoms of ADHD, he may be fidgety, unable to focus, and lack impulse control. Students with ADHD do, in fact, get bored more easily than do most people and this explains their seeking new experiences and not following through on projects already begun. Elementary school student Paige talks about how she just gets bored and spaces out. College student, Spence, talks about how fidgety he gets in class. He says he just needs to stand up.

Dr. Mahone observes that the source of this restlessness is neurological as illustrated by the results of the following MRI experiments. MRI Experiments have measured the brain activity of students who express characteristics of ADHD and compared that activity to those of students who not identified with ADHD. In these experiments, researchers asked students simply to "lie still." Students with ADHD characteristics had brain scans showing more activity in the frontal areas of the brain than the brain scans of kids without ADHD characteristics, demonstrating that students with ADHD have to work harder just to be still.

These important findings suggest that the student with this learning disorder has to work harder than other students in order to sit still and "do nothing." Thus, educational consultant, Fran Bowman encourages us to remember that this propensity for moving around and being apparently "unfocused" is neurological and not moral. Lisa Kump notes that teachers will often not understand why a bright child cannot finish an assignment.

Dr. Boser says parents struggle when a child has trouble getting through simple procedural tasks such as just brushing your teeth. Yet, as Dr. Mahone notes, teachers he interviewed suggest that the most important qualities required of children to be "ready for school" are those very qualities lacking in students with such neurological differences: the ability to follow rules, keep organized, and inhibit impulses.

Dr. Boser reminds us that children do not "want to be a failure" and if they do not follow instructions, it is because doing so is neurologically difficult for them. However, with negative reinforcement, the child will "shut down." Dr. Boser notes, "we know from rats in the lab that if the rat gets an electrical shock when he does not complete a task, that rat will just sit down and stop trying."

Ms.Bowman talks about how we must take a neurological approach to analyzing why a child does not behave in the way we would wish. Special educator, Vicki Jackson, tells us that the demands of seven classes, extra curricular classes, and other requirements naturally can overwhelm students with weak executive function. Such students often do not have the "working memory" required to hold one thing in their memory while doing something else. Paige Rush describes this struggle: "a lot of things like steps, I cannot understand. It just doesn't click."

For another student, learning facts is a problem. She can't remember years, can't learn from a book alone but rather has to hear her teacher say it as well. Third grader, Alex, talks about his frustration at being able to remember a detailed account of what happened many years ago, yet having great trouble recalling what he did yesterday.

Dr. Mahone gives a very compelling example of how weaknesses in working memory coupled with lack of impulse control can make it *appear* that a student purposely is opposing the rules. He provides the "soccer ball example" where a child still runs into the street to grab his ball although his mom has explicitly told him not to; the saliency of the ball in the moment makes remembering the rule difficult and is an unintentional effect of a "taxed" working memory system rather than a volitional disregard for the rule.

Creativity, visual learning, and Right Hemisphere Thinking (Time 6:17)

Another paradox often inherent in the lives of students who learn and think differently is that such students may have enormous gifts in intuitive, visual, and artistic domains, yet remain unable to reflect their logic on paper. For example, college student, Spencer notes that he can solve math problems "in my head" but, because he is operating on an intuitive level, he actually finds it very difficult to "show the steps on paper" as many teachers require. Thus, Laurie Rush notes, although her son may have the answers that would earn him a 90% on a Math test, his failure to show his steps results in his receiving a much lower grade. Many students who can visualize complex ideas have difficulty simplifying these and translating them into clear cogent sentences.

Not only are many twice exceptional learners intuitive thinkers and visual learners, but many such students have enormous intellectual ambitions in areas about which they are passionate and in which they enjoy doing hands on, interactive and creative work. For example, Owen Budd tells us how his interest in primitive life has led him to make primitive tools and a life sized teepee. His passion has led him to teach these skills and to attend conferences with anthropologists. Owen learns by doing, not by sitting in a

classroom. The tragedy would be to overlook the enormous intellectual originality of students such as third grader, Alex who can describe an imagined "hobbit hole" that he constructed in his closet and Paige who can describe everything she can do with a simple box. Original thinking is arguably the most responsible for creative, revolutionary ideas and inventions in our culture.

Many teachers are able to utilize these talents; for example, a student describes the teacher who asked her to use her art abilities to make images representing the sounds she needed to master in reading lessons. Trish Budd talks about the gifts she has received from her "different learner;" Owen's passion for primitive Native American culture has "taken us to places we could not have imagined."

Learning Styles (time: 7:00)

Understandably, there are often differences between a teacher's expectations of how children learn and what an executive function approach implies about which learning strategies might work best for "different learners." Ms. Mekelberg notes that it is tough when the way the student learns is not compatible with how the schools teach. Fran Bowman notes how it is difficult for teachers when you have a student who "does not get started" because the child can throw off the schedule of the class. Therefore, teachers need to reward the student for getting started. Often teachers will reward the finished project; however, the point of teacher intervention and support should come earlier in the process.

Lisa Kump suggests that teachers must devise learning strategies that teach to the organizational structures of the brain—for example, plans that include visual, spatial and other learning modes. Teachers need to be aware of their own learning styles and then fashion their teaching to meet the needs of all the different kinds of learners in the class. Middle school teacher, Henry Ward, suggests watching for how students react in situations and adjusting your approach to that child accordingly. Elementary school teacher, Gavin West notes that good instruction is good behavior management. If you can engage students in their own learning, you will have less behavior problems.

DAY TWO

Talent Enhancement: Channeling the Dragon Energy (time: 9:12)

In this segment of the film, we learn how many of our own teachers are fostering the interests and strengths of "different learners" by allowing them to discover their passions (even if in non-academic areas) and to share their unique perspectives with others—benefiting the student and his or her audience.

. English teacher, Lisa Kump, talks about how a teacher needs to discover and nurture the student's passions and interests and then direct him or her to those areas. As a teacher, she also likes to make the students the "authorities" on the subjects about which they care.

Henry Ward talks about how we can break down students' resistances to learning by finding a way for the student to use their skills and strengths. So, Mr. Ward took a

resistant writer and asked him to compose a video game to show what he has learned after reading the novel, Around the World in Eighty Days."

Jonathan Mooney says his favorite teacher was his high school English teacher Mr. Rosenbaum, a Zen-like man who had this idea: if we take the pressure off of achieving, guess what? Students will achieve." Mr. Mooney regards
Mr. Rosenbaum as great teacher because "he connected me with something I was passionate about." Mooney continues, "He wanted to know about me, not about hobbies, not about soccer, but he wanted to know what my mind loved to think about."
Teachers who try to allow students to include in their projects "what they love to think about" can allow their students to be successful.

Dr. Boser talks about how the teacher who allowed her son to dress in costume and tell stories (the student's passion) made him excited about learning and allowed him to feel capable and confident. Alex says, "The costume helped me tell the story."
Susan Kuhn talks about the confidence her son gained when he was asked to explain his method of solving a math problem although it was not the teacher's method

On the other hand, teachers who resent that the student does not like the subject he or she teaches will convey that to the student and make their resistance worse. Mr. Ward says that teachers must not take it personally if the student does not like his subject.

Dr. Mahone teaches us that we learn better in areas in which we are actually interested. Jonathan Mooney notes, we cannot throw out the books and the curriculum. However, we, as teachers and parents, are challenged to find ways to balance learning the curricular content while cultivating our students' unique interests and ways of processing and producing information. In this way, students can become confident and independent learners and can teach others their unique perspectives.

Building Confidence (time 7:02)

Fran Bowman advises us, "The best way to build confidence is to be competent in a particular area;" also, mentors who can coach and cheer on different learners can help them build on their strengths. "It is in the islands of competence that we can save the child" says Ms. Bowman.

Spencer talks about how during his high school years, the harder the courses and the more he did, the better he did. A high degree of intellectual and social stimulation was the motivating factors for his achievement.

__Parental encouragement is incredibly important. Julie discusses how her mother kept reminding her that she isn't the only one with dyslexia, that many famous people had this disability and became successful adults—Einstein and Leonardo da Vinci among others. This kept her going.

Allowing students to realize their strengths is crucial. Ms. Bowman asks students to list all the things they're good at "in life." The strengths invariably outweigh the weaknesses. This activity has a 'halo effect' on the student and provides encouragement.

Our lecturer, Jonathan Mooney, developed from a 12 year old who could not read to a 20 year old who could do course work at one of the most competitive Ivy League colleges in the country. Mr. Mooney eloquently stresses that adults need to encourage students' senses of selfhood and to cultivate their passion for life long learning in areas that excite them. We are often concerned with what people *can't* do; this ignores the fact

that for brilliant, innovative thinkers throughout history, their amazing gifts went hand in hand with weaknesses.

"Connecting kids with who they are as people and what their passions are must come before anything; it must come before reading, before arithmetic, before anything else in education," asserts Jonathan Mooney. "You are not going to learn to be a thinker if you're not connected with your self," advises Mooney.

In conclusion, our experts suggest that parents and teachers can help students with "twice exceptional" attributes by teaching them to understand themselves as learners and to focus on building on their strengths. Laurie Rush notes that it is important that parents share their own struggles with their children. She tells her children the ways in which her own "different thinking" has had an impact on her professional life. In conclusion, Ms. Bowman encourages us to help students find their areas of passion and of strength and to set goals in these areas in order to be happy and successful in life. After all, as adults, we spend most of our time using our strengths to realize our goals. Teachers should encourage students to feel good enough about their strengths to be able to take risks, both in the classroom and in life.

Partnerships: Teachers and Students (Time:5:04)

The teacher-student relationship is enormously important. The teacher must build a rapport with students before the student can trust and take risks in the classroom. If there is trust and a rapport, Meg Mekelburg notes, the student will go the extra mile to succeed for the sake of the relationship with the teacher. Laurie Rush urges teachers to take students under their wings and they will see the students bloom.

Gavin West suggests that encouraging students to approach an assignment in a way that is meaningful to him or her can build the necessary rapport between teacher and student. The students are great resources in themselves. According to Henry Ward, "if the student realizes that you are looking past their disabilities, "the student can relax and then anything is possible." Mr. West suggests using all the human resources in the school—secretaries, custodial staff, all workers—who might be able to make those all important connections with kids. Rapport building and human connection throughout the school community are prerequisites for maximizing the students' potential for learning.

Partnerships: Parents and Teachers (Time 6:16)

For all students but especially those twice exceptional students who demonstrate so many bewildering contradictions in their academic lives, parents and teachers need to form partnerships. They need to work together—supporting one another's work and nurturing the student.

Mr. Ward notes that sometimes teachers feel worried in a teacher-parent conference. Parents can assure teachers that they have an opened mind; in turn, teachers can assure parents that they know their children as individuals and that they care about the students' success. Special Educator, Vickie Jackson, notes that communicating with parents quickly when a problem occurs is important. Likewise, it is important for parents to brief teachers on their students' histories.

As Trish Bud notes parents must realize that "teachers do not always have all the resources necessary to be able to help your child the way you would like, and you must work with them as a partner." As Dr. Boser notes, sometimes it really is difficult for teachers to understand the contradictions inherent in the behavior of twice-exceptional students. Parents can gently suggest what techniques might work for their kids. Teachers should feel free to ask parents what they are seeing and home and how they can work together.

Sometimes fear characterizes parent-teacher relationships and it is just very important to understand what is causing the fear so that parents and teachers can maintain an opened and honest channel of communication. If people are comfortable with one another, they can deal with the problems.

Accommodations for the Twice Exceptional Learner: (Time 9:52)
Alternative Teaching Methods: "Multimodality Classrooms"

Classrooms work well wherein the teacher is equally accessible to all students. Mr. Ward creates a U-shaped classroom wherein he is at the center. Ms. Kump seats some students closer to her; she uses proximity and checks on each kid in her class to be sure each has gotten the homework right.

Present material in as many modalities as possible. Spencer says that any visual will help his learning; he is happy if a teacher draws a primitive picture using stick figures. Jonathan Mooney says that " we must get over the idea that there is only one way to learn and we must open up alternative channels for learning in studies strategies, in day to day skills."

What Works in the Classroom: Class Size Versus Individual Instruction

Individual instruction can be a wonderful method for different learners who need special strategies and who are often distracted by other children. In a classroom, it is difficult to reach all of thirty children. Ms. Bowman notes that it is important to build in individual time to the schedule in order to meet the needs of each learner.

Writing Lessons

As we have discussed earlier, the act of writing requires the integration of many neurological functions including organization and working memory. Since these functions are often weak in twice-exceptional students, young people with wonderful and original ideas or a thorough grasp of the ideas about which they need to write may find it nearly impossible to get these thoughts down on paper in an efficient manner.

Today, many teachers and parents are recognizing that by the simple accommodation of providing a "secretary" who will transcribe the students' dictations, adults can remove the barrier keeping the student from completing a good assignment. Many of our students talk about how their parents have acted as their secretaries until, as they matured, the mechanical act of writing became easier.

Another simple strategy for helping students to write more easily is to provide a specific, clear formula that they can follow at first (and upon which, of course, they can

later embellish once the have the basics down). Third grader, Alex, tells us how he just could not get a handle on how to write a brief constructed response
when a teacher simply said, "give it all you got." Alex says, "I did not know how to do that." However, when his teacher came up with a clear three-step process for composing the response, it worked very well. Thereafter, Alex was able to get the ideas down with relative ease and he tells us that that feeling competent in this arena made him feel just "wonderful."

Technological advances are other ways to accommodate students with learning disabilities. For example, Julie Kuhn, who has dyslexic traits, finds that books on tape and scanners (which allow her to listen to textbooks read aloud) have eased the burden of a heavy college reading load.

Strategies for Improving Memory

Some students cannot easily process information from book reading or index cards alone, as is the case with Hiroko Nishimura. For Hiroko having someone teach her the material in an interactive way can really help. She notes how her sister often engages in teaching games with her --acting out concepts or providing other mnemonic tricks to allow her to process and remember the material.

Teachers should invite students to tell them how they can best teach them; for example, Paige Rush says that her teacher must both say the information and write it on the board in order for Paige to store it in her memory. Dr. Boser notes that if a student has auditory short-term memory issues, listening in class can be very problematic unless strategies are in place to help the student store the information in long-term memory. The teacher needs to try to find a way to make the information "meaningful" in order for the student to be sufficiently "motivated" to store the information.
For students with auditory short-term memory deficits, we must, according to Dr. Boser, "keep the meaning alive."

Teaching with Executive Functions in Mind (Time 8:51)

Driving Lessons: "Tell me what you want me to know"

It is quite astounding how a small shift toward more explicit directions can really optimize the twice-exceptional learner's chances for success. For example, middle school teacher, Mr. Ward talks about how he has learned to consistently and explicitly articulate expectations and to create space and time for transitions between tasks; this strategy has yielded greater success for all his students.

Ms. Bowman suggests we need to show as much forethought and to be as *explicit* and *concrete* in our academic directions as would a driving instructor working with a new teenage driver. For example, just as the driving instructor anticipates the road sign ahead and tells the novice driver to look out for it, teachers must anticipate and prepare the student for the hurdles he is likely to find in an assignment and then give him some hints for dealing with these. Ms. Bowman argues that failing to learn well can have the same "dire" consequences as failing to drive well because of the continued harm done to the child's self-esteem as they keep failing.

Elementary school teacher, Gavin West, suggests that we not only warn students of the obstacles ahead but also ask students to look back and consider what worked and what did not work for us in the lesson. Special education teacher, Vicki Jackson, encourages teachers to give syllabi to students so that they can more easily chart their study plans.

The students share how much they appreciate teachers who realize that they are not failing to hear on purpose. Fifth grader, Paige, talks about how some teachers say they will only say things once, but her own teacher is quite willing to say things over and over again and she also asks if everyone understands.

Another strategy when working with students with poor executive function and poor writing skills is to give the students lecture notes. In this way, the student does not need to try to focus on both comprehending what is being said and getting it down on paper at the same time.

Ms. Kump notes that teacher web sites that post the steps in a research project can allow both students and their parents to stay on schedule. College student, Spence, says that rubrics and time lines help to keep him focused and on time. Ms. Kump says that all students can profit by breaking down the project into chunks. "We must be very explicit to reach all the different learners in the class," concludes Ms. Bowman.

Guiding your Student to Independence (Time 6:48)

Henry Ward notes that it is a humbling experience to realize that the role of the teacher is not to impart knowledge but to allow students to pick up the mantle and learn for themselves. If the teacher's mandate is to develop the independence of all their students, it is especially appropriate for twice-exceptional students who often thrive on independence. As Owen Budd notes, "I like to do things on my own. As soon as someone sets a deadline, I become dead-set against doing it. I guess I don't like people telling me what to do." Laurie Rush agrees that her son is an independent and needs the teacher to give him autonomy, even as he needs certain structures and deadlines within which to do his independent work.

While children with weak executive function need some direction and guidance initially to structure their options, it is much more important that they figure out what works for them as individual learners.

Jonathan Mooney counsels us, "Ask them how they want to do it. Now, 80% of the time their strategy will not work and they will have to try a new one." But, no matter how many times it takes, they have to keep choosing the strategies until they find one that works for them. For example, when he was a student, Mooney found that the much touted binder system did not work for him; what worked for him was keeping his papers folded in his book—a practice often frowned upon by educators. Encourage students to try a lot of different things and discover what works for them.

Another important educational approach that respects and fosters the independence of learners is to ask students in what specific areas they *want* our help. Ms. Bowman cautions that, often, we make the mistake of asking students with what do they *need* our help. It is always best to begin helping where they want the help. Then, you will have the best chance of success because you have a "willing partner in the learning process."

Walking the Path: Protecting the Student from Humiliation (Time:11:10)

Parents and experts share that the single most important thing to know about working with "different learners" is, simply, to care about them, to encourage them, and never to humiliate them. Parents share that their most important task is to do "damage control" when their children are hurt and humiliated. Julie Kuhn, says that she wishes she could tell all different learners than their difference is a beautiful thing, that "it is a gift." "Keep students focused on the triumphs," says Lisa Kump.

Meg Mekelburg encourages teachers to understand that some of their students walk into the classroom not trusting teachers because of the humiliations they suffered earlier in their school careers. Therefore, the teachers need to take the first step in showing students that they really care about them. Different learners are more likely to shut down than most students when they feel that teachers do not care about them; similarly, such learners may strive very hard to perform well when their teachers are compassionate and take a personal interest in their success.

Eric Mekelburg tell us to let students know that, for the most part, for twice exceptional learners, school gets easier and easier as they get older. Whereas their areas of weakness are those areas often most valued in earlier grades (writing neatly, spelling correctly, and computing accurately), their areas of strength (higher-level thinking and imaginative conjecture) are the areas most valued in higher education.

In conclusion, Jonathan Mooney bemoans the fact that in our culture, we reward "achievement" but we do not necessarily reward being a connected passionate person. We need to change that for all students. Every day you need to show kids that you are, "a connected and passionate person," says Jonathan Mooney. Every day, "you should follow your bliss," urges Owen Budd.