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Danny did not return to school this year. It is rare that a reader is told the conclusion to a story before even embarking upon its beginning. However in this case, it is vital that the reader know the outcome. Danny did not return to school this year. End of story.

Who is Danny? Why did he not return to school? What is the story behind what brought him to take this action? To answer these questions would only leave the reader with a superficial understanding of Danny's dilemma within the educational maze. After all Danny's story is not the message of this article. It is merely the vehicle for delivering the message.

The message of this paper is that children are in peril because the educational system with its rigid structure, curriculum demands, and its means of assessing learning does not match the manner in which children learn. Children are not in peril within our educational systems because of their lack of innate ability or lack of socio-economic status, but because the mental processes the children use, do not match the educational system.

Danny represents thousands of students in our education systems who are sent into the maze of educational services never to emerge as successful learners and never to complete their twelve years of schooling. Danny represents those thousands who are identified by grade three as nuisances, non-achievers, non-learners, is tested, labeled, and sent into the educational maze where they become lost and are prevented from ever succeeding. Danny represents the children who are in peril at the very hands of the educational process whose purpose is to bring them from at-risk to student success.

In the paragraphs which follow, Danny's story is told through the comments written in his official records. For the sake of the reader, the comments found within the records are made parallel. The first set of the comments (Set I) are meant to identify and diagnose his deficiencies. For emphasis the second set of comments (Set II) are meant to reflect positive observations and assessments. Note that some of the same professionals who wrote Set I comments also wrote Set Ii comments.

Danny's Parallel Lives as a Learner: Verbatim Comments Cited in his Official Student Records

First Grade
[Danny's mother gives him to his aunt to raise. His aunt becomes his legal guardian.] No documents available. Danny is retained in first grade.

Second Grade
Set I Comments
Teacher: *Impulsive, extremely disorganized, will only concentrate if things are extremely interesting, understands the main idea but misses important details; doesn't respond to punishment; many fights with peers; doesn't plan; delayed ability to copy from the chalkboard; delayed in spelling, writing speed and efficiency, in learning math facts. Daniel will not function in a regular third grade.*

Analyzing Medical Physician: *Poor visual attention, poor integration skills, poor letter formation, poor detail and poor spacing, difficulty in visual processing, visual fine motor*

skills, fine motor integration.

Learning Disabilities Teacher Consultant: *Impulsive; although Daniel's score on the tests was not defective, his drawings revealed difficulties with visual/ spatial organization and parts to whole integration; integration deficits and poorly developed reading and spelling skills.*

Psychiatrist: *Difficulty attending to task; impulsive work with a great deal of visual motor perceptual problems. Because two years behind academically, could be classified as neurologically impaired.*

Summer School Teacher: *Danny has a great deal of difficulty concentrating and in completing any written activities.*

Second Grade
Set II Comments
Teacher: *Ability average, achievement below average.*

Psychological Evaluation: *Daniel reacted well to positive reinforcements and praise; IQ 102; Intellectually functions within the average range with superiority in non-verbal areas vs. verbal processing domain; emotional factors may interfere with optimal performance.*

Analyzing Medical Physician: *Daniel has a fair amount of potential and if given the right circumstances would succeed.*

Summer School Teacher: *Good to fair development in Reading and Arithmetic. Danny's attendance and participation in the program were very good.*

Social Worker: *Daniel enjoys playing with his Ninja Turtles and building things. He gets along well with those in the home as well as the kids in their neighborhood. He bonded well with his summer school teacher and appeared to do much better in a smaller classroom setting.*

[Daniel is classified and retained in second grade. No records are available from Grade 3 through Grade 5. No official reviews of his case are conducted during this period.]

Sixth Grade
Set I Comments
PhD reviewer: *Immature and poor organizational skills; meaningful lag in ability to coordinate visual and motor information; weakness in the ability to spontaneously retain verbal information; low vocabulary fifth grade level; reading comprehension skills = 3.3 grade level; spelling makes writing incomprehensible; appears to be a classic learning disabled youngster.*

Psychologist: *Is verbal, concrete in terms of content, but free from off-target qualities that usually signal a more significant communication disorder; visual performance area inconsistent results - limitations in terms of underlying skills related to acquisition of academic tasks ;low pencil/paper skills.*

Social Worker(not same as in Grade 2 review): *Manifested intense anger at being separated from his mother up to when he was 10 years old (temper tantrums), but is still unable to resolve his feelings of anger and rejection.*

Grade 6
Set II Comments
PhD reviewer: *No examples of impulsivity; no suggestions of disinhibition, distractibility or negativism; relatively good understanding of concepts that underlie the number system; no understanding of the quantities represented by fractions; in general fifth grade level in dealing with abstract mathematical topics; practical applications of arithmetic facts - sixth grade level; mainstream in math. Daniel's difficulty with fractions should begin in remediation with concrete manipulative materials; mode of presentation, readiness of drill, level of interest, and level of difficulty must be constantly adjusted by the teacher; for reading, practice should be anchored to principles such as providing materials which are meaningful in order to motivate.*

Psychologist: *Very motivated child who is highly sensitive to rate of success or failure; weak short term memory; high negative self esteem, verbal and performance skills average out within the low average to average range~no significant weakness in one area which would signal a severe learning disability.*

Social Worker: *Competent with tools; likes to build and fix things draws well from what is in front of him; naturally neat about his belongings.*

Tutor: *Relays information more readily verbally than in writing; once firm guidelines and boundaries were established he exhibited acceptable behavior Danny not only completed the assigned work but has demonstrated accuracy and understanding; displays imagination and talent; develops board games for tutor to use with other students; would benefit from main streaming.*

Seventh Grade
Set I comments
Individualized Education Program 3/96: *Child unable to do work in main streamed science and social studies classes. IM resource room for reading and math; cannot copy notes from the board; cannot read what he has written in his notebook; cannot pull information from text; difficulty reading seventh grade books; cognitive ability in the low average range; weaknesses in reading, written language, and math; very weak written language skills.*

Set II comments

Individualized Education Program 6/96: [New Head of Child Study Team]

Child requires instruction geared toward his individual learning style and academic skill levels so will be placed in the resource room for reading math and spelling. Will be main streamed in all other courses, including science and social studies.

Eighth Grade
Set I comments
IEP Report (3/97): *Previous history of neurological impairment, gets along well with peers. Classification continues.*

Art teacher: *A constant disruption. Work is sloppy and grades are poor.*

IEP Report (6/97): *Low average abilities/ Global perceptual deficit. Poor attitude-discipline history; inconsistent peer interaction. Classification continues. Placed in alternative school. If successful, option to return to day school.*

Set II comments
Art teacher: *Can do the work, but prefers to socialize.*

History teacher (maintstreamed): *Overall grade 87. Doing well!*

Science Teacher (maintstreamed): *Labs- straight A's. Quizzes 60, 80, 80, 50. Present Average 87.*

Danny was told in January of 1998 that if he were to maintain his grades of B's and C's, he would be de-classified and returned to the regular education program. He achieved that goal the Spring of '98, his eighth grade year. Upon entering school to begin his 9th year of school, he was given a schedule which retained him in his special education classification. Four days later, Danny signed himself out of school and entered the ranks of the drop-out.

Reviewing the Construct of the Educational Maze in which Danny Found Himself

The question central to how Danny became lost in the educational maze is how did his teachers, child study team, and external assessors come to view him as a non-achiever, an at-risk student? What was their basis for understanding his learning processes? How did their conceptualization of learning limit their understanding of who he is as a learner? Calleja,1998, adeptly describes the disconnect between teaching and learning:

Schooling for too long has relied on the conduit metaphor which relies on the transmission of information view. This view makes children's ideas irrelevant and absorption of knowledge as the ultimate aim of education. This view therefore encourages rote memorization of facts and for individuals to keep their own insights and understandings of a situation to themselves, thus holding back from expressing their own ideas and actively constructing knowledge (p.34).

The result of this approach to teaching and learning is that children who do not learn in the traditional sequential/precise manner soon find themselves labeled as disinterested, disengaged, and off-task. The following chart provides the outline of the educational maze through which the learner finds him/herself traveling. Danny is one of those students who during his early years was unable to find the passage ways to achievement within the educational maze of teacher-oriented learning:

Table 1.The Educational Maze (Elkind, 1981; Johnston, 1996)

The Age	*The Stage*	The Action	If Not Successful as a Student, the Question Becomes...
4-5	Induction	Enters school; Seeks approval	Why am I able to at home and not at school?
6-8	Socialization	Develops standard behaviors through socialization in school setting.	Why can't I learn the way the teacher wants me to learn?
9-10	Standardization	Develops awareness of self and teacher expectations.	Why am I stupid in school?
11-12	Critical Juncture	Decides to buy into schooling, or drops out as a learner	What does it matter if I'm stupid?

Using this understanding of learning, Danny exemplifies the deficient learner, i.e., a

child whose learning needs to be "fixed" before he is going to succeed within the educational system. Young Joe provides another vivid example. Twenty years later looking back upon his first two years in school, Joe, now 26, explains:

As I look back on my elementary days in school I can see a small two room brick building with hardwood floors and little wooden desks. Today is the first day of kindergarten for me. I walk into the school following the frog footprints to my classroom. At this point many things are going through my mind. When are we going to play? Where are the toys? I hope I am going to learn my colors. I wonder what book the teacher is going to read to us. And then there's the most important thing in my mind - the teacher! What is she going to be like? Is she going to be nice? Will she like me? Well after the first day all of my questions were answered. We are going to have a great time! This teacher is going to teach me everything I want to learn. She did. She was the best teacher ever. She let us explore our classroom, build things, paint, color, and even play with clay. I knew then that my years in school were going to be great.

Well first grade is here. Things are not going as planned. This teacher teaches us in a different way. A way I can't handle or understand. I was always a successful student. I loved school until first grade. This teacher basically told me I can't learn the way I want to learn. I must adjust to her way. I refused by acting out and being disruptive. I wasn't bad. I just wasn't being challenged enough. The teacher called a conference with my mother. I figured that this meeting would have helped the teacher understand my needs. Unfortunately, things did not go my way. The week after the conference I was put on a medication called Ritalin. This was supposed to help me abide by the teacher's rules and be less of an itch.

This was the end of my elementary years memories. I believed that the way I was learning was wrong and this first grade teacher was going to show me the right way. As time went on I learned how to tune things out that didn't make sense or that didn't have a place in my world (DePalma, 1998).

Many young students eager to start school become progressively disenchanted with the formalized learning process. What happens to them? The data would suggest that they become lost in the educational maze of following directions, embracing the world of words, learning at the pre-established pace of the curriculum, and learning in the manner in which the teacher teaches. For these learners, the prospect of finding their way out of the educational maze is bleak.

However, if we examine an alternative conceptualization of learning, one which incorporates our latest knowledge of brain science and learning processes, we find that the prospects for success for the "Dannys" and ""Joes"" of our classrooms can be quite different.

The Interactive Learning Model

The Interactive Learning Model provides an alternative set of assumptions about learning and the learner from the traditional model of teaching. The Interactive Learning Model assumes that taking control of how to make learning work is a powerful and positive learning experience for the learner. Rather than being acted upon as a passive object, the learner takes responsibility for making learning work for him/herself using carefully developed and personalized activities (including technology-supported electronic profiles) to enhance the learner's metacognitive/reflective skills (Brown, 1997; Johnston, 1998).

The Interactive Learning Model (ILM) has its literature base in cognitive science, brain science, multiple intelligences, and learning styles. The term, interactive, was chosen to describe this model because it depicts the simultaneous interactions of cognition, conation, and affectation as they form four synchronous patterns within our mental processing (Sequential, Precise, Technical, and Confluent) (Johnston, 1996, Johnston,

1998, Snow, 1992). These patterns represent how the learner sees the world, takes in stimuli, integrates the stimuli and formulates a response to them (Borkowski & Kraus ,1985; Johnston, 1996; Keefe & Ferrell, 1990; McClean, 1978; Pay, 1981; Perkins, 1993, Philips, 1936). Unlike learning styles, the Interactive Learning Model does not categorize a learner but emphasizes that every learner uses each of these patterns in concert to varying degrees.

Sequential
Wants clear directions and organizes and plans carefully
Cognitively: Matches and compares experiences.
Conatively: Organizes stimuli into the correct categories.
Affectively: Feels successful when linkages between the new and prior experiences are found.

Precise
Seeks details, researches answers, and questions accuracy.
Cognitively: Wants an explanation of how the world operates.
Conatively: Confronts new stimuli by questioning their validity.
Affectively: Feels successful when all is known. Knowledge is its own reward.

Technical
Solves problems on own using a hands on approach.
Cognitively: Seeks to find the relevance of the issue.
Conatively: Seeks time to tinker and mull to solve the problem.
Affectively: Feels successful when the problem has been solved through own effort.

Confluent
Takes risks and embraces unusual approaches.
Cognitively: Intuits the whole scenario from few facts.
Conatively: Pushes the limits of what can be accomplished.
Affectively: Feels successful when fearlessly taking a risk without regard to previous failures.

The Interactive Learning Model provides a means for empirically testing its assumptions about learning. It does so through the use of a 28 Likert item self-report instrument, the Learning Combination Inventory (LCI) which measures the degree to which learners simultaneously use each of four mental processes (patterns) while learning.

Over the past six years Christine Johnston of Rowan University, teachers and administrators at 11 national and international sites along with faculty at the University of Malta, Queens University Belfast, and St. JohnsYork University, UK, have tested the validity and reliability of the LCI (Johnston & Dainton, 1996). Gathering results from over 9000 6-18 year old students (including regular education, special education, dispraxic/ neurologically impaired students, and Westinghouse National Science scholars) and 5,000 adult professionals, these institutions have directed a research agenda which has linked pre-service teacher instruction to local school classroom practices, K-12 staff development, and Postsecondary education.

The ILM and LCI form a basis for dialogue between student and teacher and student and student resulting in the development of a very powerful classroom community in which each learner feels he/she is a contributing member of the learning environment (Johnston & Johnston, 1998). The use of the ILM and LCI have resulted in the development of a teacher-student learning dialogue entitled *The Let Me Learn Process*[tm]. It is the awareness of how learning works within the adult-teacher which helps the teacher reflect upon how his/her life-long approach to learning has affected his/her ability to appreciate how learning occurs in others. It is the convergence of the teacher's personal awareness of how he/she learns along with his/her awareness of

how individuals approach and carry out learning that makes *The Let Me Learn Process*^{tm} a powerful process for teachers and students taking personal responsibility for bringing about change within any instructional setting.

Teachers and faculty who have participated in *The Let Me Learn Process*^{tm} report that they have become models of reflective learning for their students, as they share their own thoughts about learning with their students. *The Let Me Learn Process*^{tm} engages teachers in involving their students and themselves in learning activities which encourage inquiry and performance rather than limiting them to paper and pencil recording of information. In doing so, Let Me Learn changes the dynamics of the classroom discourse; changes the classroom climate; creates teacher-learner partnerships; and provides various approaches to learning experiences for students. *The Let Me Learn Process*^{tm} shifts the responsibility of learning to the learner leaving the teacher free to engage in developing a learning environment in which individual learners thrive and succeed because they are using their learning processes most effectively.

At Risk in the Educational Maze which Narrowly Defines Learning

The following description of Mark as a learner and as a student validates what happens when a learner is unable to take on the behaviors of the Sequential/Precise student as deemed necessary for promotion and success.

Mark's Learning Combination Inventory results:

Grade 3
Sequential 19
Precise 07
Technical 35
Confluent 27

What frustrates you about learning: *It's nothing but asering cwestons.*

How would you like to show what you know: *I wood show how I play mines plus.*

How would you teach others: *I would teach them by playing games.*

Mark is a non-traditional learner locked in a highly traditional system. His LCI scores and written responses provide the evidence for this statement. The words of his elementary guidance counselor substantiate his plight:

This child became a part of my case load because of his difficulties in the classroom. He would not follow directions; he would frequently be sent to my office. This child is one who spent a great deal of his second grade time in my office, sent there because he was not producing, or he was touching someone or something he should not be touching, or he was physically someplace where he should not be. He is now in the third grade. These are some of the comments his teacher has given me permission to relate .

First this individual now sits right next to his teacher . She feels he does not feel he can be successful in the classroom if he is sitting with other students. He needs to be completely by himself. He also will just look around. He is not malicious with it. He doesn't understand that he is disruptive. He will sing when he is working. He taps his pencil. She laments that there is no computer in her classroom because when he gets the opportunity to work hands on, he thrives. The way she has found success for him this year is to grade all of his manipulative tasks and has worked out with him a

situation whereby whenever he has a paper and pencil or school task to do, she arranges it so he can do those in small spurts. It has been a constant negotiation, and nothing is ever easy.

Mark is a classic example of the learner who finds it difficult, if not impossible, to use his learning processes within the highly sequential and precise learning environment in which he has been placed. Only when he is with a teacher who understands his struggles to conform is he able to use his learning processes in any type of an effective manner.

Samantha, on the other hand is a stark contrast to Mark. She, because of her level of use of Sequence and Precision, would be termed the "Ideal Student." When she was administered the LCI early in her grade 1 year she amazed the person who was administering the inventory when she announced that "nothing" frustrates her about learning. She was emphatic when she stated that "I have a system. I use it, and my teacher likes it." The administrator noted in the margin of the inventory that Samantha presented herself in the guidance office with great confidence. She seated herself primly at her desk, smoothed out her dress, folded her hands and announced that she was ready. Samantha's consistently high scale scores in sequential and precise processing indicate her "fit" with schooling and the traditional school learning environment. She needs consistency, patterns, rules, and structure. Her answers indicate that she responds well to a classroom in which these are used foremost.

Figure 1: Samantha
Grade 1
Sequential 27
Precise 25
Technical 13
Confluent 19

What frustrates you about learning: *Nothing. I have a system. I use it. And my teacher likes it.*

How would you like to show what you know: *Do spelling*

What would make learning fun for you: *I like school.*

The contrast between these two learners is brought into focus when one examines the outcome of a three-year study completed at the school site where both of these students attend. In this study (n=56) every child regardless of his/her learning potential (IQ above 100) whose learning patterns involved a combination which avoided the use of words (facts, dates, writing, spelling, etc.) and who used the non-verbal pattern of technical reasoning and problem solving to begin a learning task, had either been retained a grade or were classified as learning disabled (Johnston, 1997).

The insights gained from this small but illuminating study suggests that the misperception of a child's learning processes may destine the child to be viewed and processed within the educational system as unable or unwilling to learn. Such misperceptions put the child "at-risk" within the very system which was intended to nurture and nourish the child's learning processes.

Let Me Learn: An Alternative Approach to the Traditional Approach to Teaching and Learning

The Let Me Learn Process[tm] teaches learners to understand their approach to the processing of words and numbers; their use of individualized learning tools of organization, gathering of information, problem-solving, and ideation; the development of a sense of efficacy as a learner; and behavior in a group.

The Let Me Learn Process[tm] has experienced success in modifying teacher and student behavior to reduce the risk of marginalizing children's success in school. At the heart of *The Let Me Learn Process*[tm] is the understanding of the individual talents of the learner by the learner and the teacher. *The Let Me Learn Process*[tm] is used with learners and teachers within their regular learning contexts, i.e., as they are confronted with typical learning and assessment tasks such as reading, writing, computation, problem solving, oral presentation, and project construction.

Students learn to engage their individual learning processes, collaborate with others to enhance their learning strategies, and use metacognitive strategies gained from their use of reflective practice. During this phase teachers learn how to understand the effect which their combination of learning patterns has on how they organize and facilitate learning in the classroom (Kucan & Beck, 1997; Johnston, 1997/98). No longer a maze of narrow passage ways, the following chart describes the teacher/learner interaction which is engaged in through this learner-centered process:

Grades K-2

- Provide an ACCEPTING environment.
- Create teacher & parent awareness of the learner's combination of learning patterns.
- Create learner acceptance of self as a capable learner.
- Create teacher-learner communication concerning how each learns.

Grades 3-5

- Provide a NURTURING environment in which the learner's patterned learning processes are developed.
- Create peer awareness of unique learning processes.
- Develop opportunities to work with other learners in a respectful learning environment.
- Create teacher-learner partnerships.

Re-defining the Learning Environment: From Maze to a Level Playing Field

The Let Me Learn Process[tm] has been used to implement self awareness, reflection, and monitoring of individual learning (Johnston, 1998). The results of the implementation include 1) an enhanced sensitivity to the individual's learning orientations; 2) a change in the assumptions of individuals who learn and teach within that learning culture; 3) lowering of bias toward those individuals whose learning patterns are not those currently promoted and nurtured within formal learning settings; and 4) a raising of awareness of what currently constitutes the misplacement of learners into special needs or at risk categories.

Two insights which have been gained include identifying that those learners who use technical and confluent patterns while avoiding precision are the most at risk for alienation from traditional schooling . The first involves the issue of economics and the American workforce. Ironically the current school process results in disengaging those learners who possess skills which are invaluable, particularly in the area of scientific endeavor. To that end, the DuPont Corporation has made a major commitment to rectify this dysfunctional aspect of the current schooling process. Secondly, in those schools who have implemented *The Let Me Learn Process*[tm], schools administrators have discovered that up to one-third of their students are being inappropriately placed in special education courses due to teachers' misperceptions of their learning patterns. In three of the five schools studied, referrals to pupil assistance committees and child study teams have been reduced by 30%.

What this suggests is that the use of Let Me Learn Process has been able to shift the actual cultures and behaviors of classrooms toward making learning and learning outcomes their actual focus and activity instead of the mere induction of children into schooling. Most importantly engaging in this learner-centered process has enabled teachers to see beyond student stereotypes to find the real learner.

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