

**CAREER ASSESSMENT SERVICES DEPARTMENT
CONSULTATION MEMORANDUM**

Date of Report: 8/31/2011

Client: Nova Scotia

Dates of Service: 11/15/2010 – 8/31/2011

PID#: 123789

DOB: 1/22/1987 **Age:** 24

Disability: Multiple Disabilities secondary to Neonatal Cerebral Palsy (premature birth), including learning disorders, orthopedic impairments of upper & lower extremities plus scoliosis, speech/language disorders, and cognitive disorders (NOS)

Evaluator: Samuel Castiglione, D.Ed.

Referral Source: Brickley Mightbe, DORS Counselor

Office: DORS Chesapeake Bay Phone: 410 974-7608

Reason for Referral:

Mr. Scotia, a DORS consumer going back to at least 2005, was referred to WTC for a comprehensive set of services in the early fall of 2010; this included questions for CAS as to his suitability to continue in college, potential for training at WTC, and potential for competitive employment in career options to be identified.

Sources for this Consultation:

Approximately 100 WTC AWARE system Service Notes: 7/1/2005 to 9/16/2010
Similar AWARE system Field Office Case Notes, same time period.

Documents:

'2003 /04	IEP	Disability Code: "Multi" (SLD-Orthopedic-Speech/Lang)
July 2004	RTS/AT*	RE: computer system for school
	*AT = Assistive Technology	
Aug 04-Feb'05	RTS/AT	RE: switch operated telephone
Sept. '05	CORF/PT Eval	RE: wheelchair use; bathing system; patient lifter
Sept '05	RTS	RE: Environmental Control Unit services
Dec. '05	CAS Report (Vocation Validation)	Interests in college; 5 th grade reading compr. Extensive dependency on Aide; Math 8 th ; His sports articles were interview-style Q&A, took 15 hours, were then edited.

Dec.'05	CORF/PT	RE: review of Hoyer lifters, sling.
Feb'06-Sept'06	RTS/AT	RE: set up of adaptive phone equipment
Nov'06-Dec'06	CORF/PT	RE: Use of power wheelchair. Note difficulties From distractions of other people when Driving. Use of wall-mounted door switch.
Jan.'07	RTS/ Environmental Control	Unit service: Door, lighting, TV...
May '07	RTS/AT	RE: Noted joystick; startle responses interfere Using word prediction; Visual tracking Skills deficits; Noted that 2004 rec. for Computer system never purchased. Kurzweil 3000 improved his paragraph Comprehension. Digital recorder; EZ Keys; etc.
Oct.'07	RTS/ECU Services	RE: set up Relax II and X-10 modules
Feb'08-Apr.'08	RTS/AT training	RE: Senior yr. HS. Training on equipt- Kurzweil, Digital record, etc.
May'08-Oct'08	RTS/AT	RE: Phone access at college
Dec'08	“ “	Equipt. Ordering information
Dec.08	Letter from Judith Cappuccilli,LPT-	Noted 3 classes at A.A. C.C.
Nov.08	Psychological Report (Dr. O'Donnell)	Noted near average verbal comprehension Word reading 5 th grade. Oral reasoning, memory problems. Uneven Cognitive performance.

Summary of Procedures:

Following a WTC team meeting of 10/4/2010, the staff decided the best approach would be a CAS Consultation Service concurrent with RTS/AT training, to be done over a period of time (months); Mr. Scotia needed to have (and be able to use) AT equipment and software to be able to express his best abilities in CAS, while the introduction of CAS assignments during training would assist the AT specialists to understand how he would need to use the equipment and to adjust the equipment gradually to his best use.

The evaluator observed two initial sessions, starting 11/15/10, with specialists Angela Strauch, CCC-SLP, and Dr. Rosemarie Ha, as they tried out various forms of adaptive software. By the end of the second session, they had determined the best arrangement to be a REACH onscreen keyboard and ScanBuddy, screen scanning software. For the third and subsequent sessions, the evaluator made available to them an onscreen interest inventory, a verbal reasoning career test, and a payroll computation math exercise. Due to

Mr. Scotia's slower work pace, he finished only the interest inventory and verbal reasoning exercise, by the end of his AT sessions. Over the next months, the evaluator followed up by email: Communicating the results of the interest inventory; sending lists of job titles corresponding to top interest areas to solicit his strongest preferences; seeking writing samples; and similar exercises. It was understood that his family would be helping him with these non-test activities. The evaluator analyzed the results and performed analysis of the Knowledge, Skills and Abilities for each of the jobs chosen.

The evaluator then participated in a team meeting with field staff and WTC staff, Mr. Scotia and his father at the local DORS office. The participants reviewed all the progress and questions to date. It was agreed to purchase the needed AT and to begin training Mr. Scotia one day per week at WTC, while the evaluator continued with embedded assessment activities to follow up on the jobs analyzed. There was some thought that perhaps some type of independent writing career, Internet-based, may be possible as the best use of apparent abilities.

Beginning on 3/29/2011, Mr. Scotia worked with Dr. Rosemarie Ha and specialist Michael Perkwitz to be trained on his equipment, to adjust the equipment for his best functioning, and to use content materials provided by CAS. The first session was devoted wholly to AT training, with CAS materials introduced in subsequent sessions, which continued throughout April, May and June. As much as possible, the evaluator tried to observe and interact with Mr. Scotia during a portion of most sessions.

On 6/28/2011, the evaluator participated in a large team meeting at WTC that included other WTC RTS and CAS staff, field office and Regional staff, Mr. Scotia and his parents, and Allison Kimble, A.A. Co. Service Coordination specialist. The team reviewed progress, obstacles, additional goals, and considerations for more community support.

In July, following the large team and family meeting at WTC, the CAS/RTS-AT team continued working on projects started in prior months and on improving Nova's ability to use his new AT. That month also continued the new practice of having him arrive at WTC the night before so as to help him be functioning and on time for his afternoon session the following day. He seemed to be making a good adjustment to that process, although transportation reliability was extremely uneven.

Friday work was done on two fronts in July. On Friday mornings at 10:30 Nova would come to the CAS lab for about an hour. After lunch, he worked with the AT specialists from 1 – 3 p.m. In CAS on the 3 mornings, we first worked about 20 minutes with the neuroheadset on the MindFlex game. This was to try to improve his concentration and also to experiment with a method of potential control without motor movements. In the second half of each morning, we tried a different set of tasks. Two traits about Nova that the team/family meeting recognized was a) he enjoyed socializing, and b) he could operate his motorchair around the Center effectively. So on the three dates he was given three envelopes the first day, and four on each of the other two days, to deliver to designated sites around the Center. These were fairly successful. The direction for his

afternoon sessions with his AT specialists was to set up structure and practice for journaling and web research activities. A document file was set up with him to acquire cumulative results across sessions, and in the one part he was to write about some event of the past week; in the other, after doing some Web research he was to excerpt and/or write about that topic.

At this time, CAS activities are ended. Mr. Scotia needs to practice in his home environment on a more regular basis, preferably daily, and to consolidate his gains in the use of his AT equipment and software. Vendor Keith Austin has already been engaged for this process, and has been integrated into this process the previous month. Mr. Scotia and his family will continue to work out arrangements for more community resources with his Service Coordinator. He has been scheduled to return to WTC for sessions involving academic assessment, and possible pre-college assessment.

Significant Points:

Cognitive Functions:

He had two attempts on the CAPS Verbal Reasoning subtest, which he tried initially on 12/8/2010 with Dr. Ha. The first time he completed two (of six total) sets, involving 8 items, and got 1 item correct. This corresponds to the bottom of the 1st Stanine (Stanines are standard scores ranging from 1, Low, to 9 High). The test is on an Excel file with shaded blocks for marking an answer, to provide more structure and ease in completing the task.

His second attempt on 4/26/11 with his newer equipment showed that he completed 12 of 13 items in the first 3 sets, and he got 5 of the 12 correct. This corresponds to the top of the same 1st Stanine. (For purposes of comparison, this test is normally given as a five minute timed exercise with paper & pencil; the average person usually completes only four of the six sets. The average Stanine range is 4-5-6.)

Other cognitive functions include attention/concentration and speed of processing. Mr. Scotia's attention/concentration has continued to be quite variable, as has been noted over several years. When well-rested and alert, he has been able to concentrate on tasks for about an hour and a half. He also showed some concentration ability when using the neuroheadset, where his concentration produced brainwaves that were able to operate a device without motor control and to not only turn a fan on & off, but to increase or decrease the speed of the fan; his control was variable, and he had more trouble relaxing his concentration to turn it off. At the same time, he could be distracted by external events – people coming by, difficulties with his wheelchair, and so on; and also by his own internal impulses – suddenly thinking about food, a desire to call his mom or dad, or other topics of interest that came to mind. His Speed of Processing, also noted previously, is slow. That slow speed invariably involves delayed motor reactions; thus his onscreen scanning system had to be set to a very slow speed to allow him to track it; but he also showed slow anticipation of the target keystroke or command that he needed, so by the time he hit his chin switch, the scanner highlight had often moved to the next

item resulting in an error, which then needed to be corrected. This process then slows his entire production.

Reading:

On 4/26, he had two assignments: One was to read a passage (“The Power of Color”) from a TABE “Difficult” level Reading Comprehension test book, and to answer five multiple choice questions ranging from discernment of facts in the passage to inferences not directly contained. The assignment was initially designed in two documents, one the passage and the other the questions, with the intent of mimicking the process of finding information on the Internet and working back to a document he might be producing. The AT specialist working with him found that he could not toggle back and forth, so the two documents were combined. He was able to finish marking his answers, although scrolling back and forth was also difficult. He obtained two correct answers out of the five questions.

On 5/10 Nova worked solely with Mike P. and Dr. Ha in getting better at using his AT. He re-read a “Power of Color” article from previous assessment and its set of questions, which required using Kurzweil and getting better at scrolling through the questions and back through the article. While there were problems with the switches being used, Nova was described as alert and focused, and worked without interruption for one hour and 40 minutes (under the direction and close supervision of Mike P. and Dr. Ha).

On 6/9, after working on the math assignment, he was asked to do some Internet research. He looked for a Baltimore Sun article he had read a few days earlier and then for Baltimore weather, but he had difficulty with finding the website or with scrolling down a page to read what was below.

On 6/28, following another overnight, the attempt was to more systematically check his reading against his AT use. A) He was provided a large print passage and questions from the TABE, Level A-Advanced (due to continuing questions about college), where he could see them simultaneously on an easel in front of him. He was coached in the skill of reading the questions first to set up his orientation, then to read the passage itself, then to answer the questions. He could give his answer to the multiple choice questions orally to the evaluator who transcribed them. He answered 2 of 6 correctly.

Then B) he was allowed to re-read the same passage on computer, using Kurzweil screen reader, for both the passage and the questions; again he transmitted his answers orally. He changed two answers this time from previous, one from incorrect to correct, and the other vice versa. His score was still 2 of 6. Finally C) he was given a new passage at the same A level but this time operated the Kurzweil on his own, and marked his own answer using his AT (Scan Buddy). He was coached on how to pause Kurzweil after a paragraph of information in order to absorb that paragraph before progressing. This time he answered 4 of 7 correctly from the multiple choice questions.

Writing:

On 4/15 (his third session, after two devoted to technical issues with setting up and practicing with his new equipment) he was given a writing assignment to compose a small passage about some topic familiar to him, using his best grammar and language; but his technical difficulties in using his AT produced only a few words. At his next session, 4/21, he embarked on a more serious writing attempt, having been prepped with a topic from his previous session. His result, forwarded from Dr. Ha, was a three-line passage describing a case from Court TV. It took him 1 hour and 10 minutes to produce. An analysis of his writing showed a Flesch Reading Ease score of 38.4 (higher scores represent easier reading, with 70-80 as an “ideal” range) and a Flesch Kincaid (Reading) Grade Level of 13.1, appropriate for someone who had some college exposure. There were no Passive sentences, and his second sentence was a very complex construction. He had several capitalization and punctuation errors. We would expect that continuing at the same rate, he would produce a 100-word paragraph in two and a half hours.

On 5/3, the first hour was spent in fixing his wheelchair and positioning him. I was there for this and helped get our “wheelchair expert” from PT to resolve this. Nova then spent 50 minutes with Mike P. and Dr. Ha analyzing a black & white line drawing of a beach scene, and typing an objective description of it as though he were viewing an event. He struggled with frustration in fixing his typing errors. This is what he wrote:

“In the picnickers the background in is a beach landscape adults are laying in the suns relaxing and some people are on the water sailing. The parent is taking the child swimming in the water.”

This completed the second part of the writing assignment initially provided on 4/5/11. It is not as complex or well-written as his prior composition about the Court TV episode.

On 5/19 I provided an editing exercise in which he was given a passage with words highlighted in yellow, and Nova was to replace those words with an appropriate synonym. There were also two blank spaces that he was to fill in with an appropriate word. He was encouraged to use thesaurus and word prediction programs to help him. Nova’s initial attempts to use Kurzweil again led to discovering that program does not permit synonym replacement of words. So he had to re-open the file using Word, but the option in Word requires placing the cursor in the target word, right-clicking, select the appropriate synonym, and click. Nova had trouble with placing the cursor appropriately, with using his switches to make the clicks, and with the long time that the ScanBuddy requires to make onscreen choices. He was only able to complete two or three parts of the assignment.

On 6/14, after some time being introduced to a neuroheadset on a MindFlex game to practice control of an apparatus by brainwaves instead of by motor control, he returned to his regular AT equipment. With that regular AT, he was asked to write a paragraph about what he had done since his previous session. He typed about 1 hour, 20 minutes and was able to write about one sentence, 33 words. He misspelled several common words, and because of the nature of the misspelling could not use SpellCheck to help, so he had to ask the Technologist present for help. The items in parentheses show his initial attempt with the target word following:

(Thrs..) Thursday; (ser...) ceremony; (bil...) builder; (oppr...) opportunity.

The last task on 6/28 was for him to write a reaction piece (a small paragraph, about 100 words) to either of the two passages, whichever he found interesting to write about. He chose the passage about NFL Referee/Motivational Speaker John Tunney.

Nova wrote: *"The sports passage is very interesting because it talks about how john's father was the main influence in his life"* He was encouraged to edit his writing and put in some punctuation but did not finish.

Math:

On 5/24 and 5/31, he attempted to work on a payroll computation exercise which was on an Excel file. He has had previous exposure to Excel for other exercises that we have completed, but this was the first one containing computation. It was projected that Excel's capacity to do computations within the program would eliminate the need for any external or onscreen keyboards. On 5/24 he arrived late, and had 40 minutes of mostly work time. There were some difficulties with his REACH program and the multiplication symbol. Nova demonstrated familiarity with Excel, needed little prompting, but was able to complete only one calculation, in the form of "number of hours worked" times "pay rate/hour" to provide a gross pay. In the second session, there was more direct work on the payroll exercise, but Nova displayed trouble understanding the concept. He was led step by step through 3 more entries, but had trouble both with using the REACH program for specific characters (like a decimal point) and with shift and right arrows keys. Nova complained that his poor vision-tracking made it hard to follow the scanning in order to click at the right time or right place.

On 6/9, he attempted the third consecutive session on a payroll computation exercise to see his calculation skills. He had been having difficulty not only using the system with an Excel file and Dr Ha had constructed an onscreen numeric keypad for him, but he apparently also had trouble absorbing the math concept (e.g. hours worked X pay per hour = weekly pay). The task was simplified this session so that dollars & cents were converted to whole numbers, but after 40 minutes he had completed 1-1/2 calculations.

Analysis:

Reading: During several sessions, Nova has been exposed to a variety of passages from the TABE, either at Difficult or Advanced levels chosen because of his aspirations and his experience with college courses. To summarize his reading comprehension to date:

1.

A "Power of Color" passage from the Difficult level; he got 2 of 5 correct (40%).

2.

A passage about NFL ref John Tunney from the Advanced level; he got 2 of 6 correct (33%).

3.

A passage that was a web page about animals' decreasing habitat in the face of human land development, also Advanced level; he got 4 of 7 correct ((57%)

All of these were done using Kurzweil screen reader to help read aloud and to track across the passage. His average accuracy rate was 43%. If we were to assume that he was as accurate as 50% on an entire reading test, using the TABE Complete edition norms as a guide, 50% accuracy at the Difficult level would be a 4.7 grade equivalent; 50% at the Advanced level would be 5.3 grade equivalent. In either case, this is not a promising academic result to encourage the volume and complexity of college level reading requirements. NOTE that a 5th grade reading level has been a relatively consistent assessment result for several years (see the notes under the career assessment by Vocational Validation, 2005, and the psychological report of 2008.)

Math: We have done little of this, although he attempted through three sessions to deal with the payroll computation that has relatively simple multiplication and addition; actually Excel would have done the computation itself for him if he could have acquired the concepts.

Writing: This has been an active area of investigation. His written work is attached on one page at the end of this narrative, including a summary of the Readability Statistics of his work. His writing continues to be coherent and generally grammatical (with some persistent errors of capitalization, punctuation, and sometimes spelling where he needed help from the specialist in order to start the right spelling for a word so that the word prediction program could be helpful); he often writes with complex sentences. On the other hand, his writing continues to be excruciatingly slow. In fact, it was decided by the specialists that he could not do both types of assignments (event journaling vs Web research) in the same session, and so his work was alternated between sessions.

As previously noted, the 5 conditions for two consecutive assessment days listed by Jim Corey on 4/29/11 have not been met:

- 1) All AT and computer technical issues are resolved.
- 2) Nova is comfortable in independent use of his AT
- 3) He demonstrates mastery of basic internet and word processing skills
- 4) He works reasonably independently with minimal direction or assistance
- 5) He shows working attention of one to one-and-a-half hours.

Vocational Options:

A.

The ongoing impression remains that there is very slim progress occurring, mostly with respect to adjusting to his AT. His writing, editing and computation thus far have not seemed to support employment activities but they also don't support independent college learning. The impending academic/college assessment may provide additional or different perspectives.

B.

It continues to be the recommendation that his AT equipment be set up at home; he needs to practice and to demonstrate more independence in reading and in journaling every day, not just once a week at the Center. The earlier prospect for his operating his own blog (or perhaps Twitter site) requires mastery of this step.

C.

There may be some discussion that for a narrow range of his potential learning or employment situations, the most efficient procedure may simply be to have a scribe available to take some notes for him or to write what he dictates. The caution here is, as previously, the scribe can't be allowed to do his thinking work for him.

D.

The most promising avenue is to note his success with making mail deliveries around the building, and imagining that he could do similar things elsewhere. He would need orientation and accessibility routes in a new building. He might need an additional basket on his scooter, well-organized in advance to help him, but after that he could ask for help in finding building locations, using elevators, and removing the documents/small packages from his basket.

E.

I do not foresee further CAS work with Nova; we had one last session to consolidate our work with the neuroheadset and established a video record of that for the team and the family. Although it shows some promise, further work is beyond the scope of CAS and I have not been able to find a direct application to brainwave control of a computer mouse. Possibly, I could recommend seeking a source for cognitive neurorehabilitation for more advanced work. I am in agreement with other writers that he is a very unlikely candidate to benefit from Community Living Skills Training. His biggest need is for a structured day activity program outside his home; that could incorporate some of the features examined here over the past several months – opportunities to research and journal using his AT; participating in useful tasks like the mail deliveries he made around WTC; and opportunities to participate in socializing and support groups.

Thank you for the referral. I will remain available for further consultation if needed.

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Appendix

Reading/Grammar Analysis for Nova Scotia:

(Samuel Castiglione)

COMPOSITIONS:

4/21/11

“The orange county state attorney office indicted a juvenile on first degree felony murder charge. After all the testimony during the trial the Florida juvenile was found guilty of the charge of manslaughter in the stabbing over a lover’s triangle gone bad. The juvenile was sentenced (Sic) (1 hr 10 min)

5/3/11

“In the picture the background is a beach landscape adults are laying in the suns relaxing and some people are on the water sailing. The parent is taking the child swimming in the water.”

6/14/11

Last Thursday WE had a graduation ceremony to attend for my sister who is now moving on to a all day workplace for people with all types of disabilities called opportunity builders incorporated.

6/28 11

“The sports passage is very interesting because it talks about how john’s father was the main influence in his life”

Journal:

7/8/11

On this past Monday evening I went to the movies and the movie that I saw was called cars 2 in 3d.

7/15/11

On this past Saturday evening my father and I received baseball tickets from my mothers work for the Washington nationals against the Colorado rockies. We took the metro train down to the ballpark.

Pasted from WEB searches:

1The Secret Service Division was created on July 5, 1865 in Washington, D.C., to suppress counterfeit currency.

2Secret Service headquarters relocated to New York City

3Congress passed Sundry Civil Expenses Act for 1907 that provided funds for Presidential protection by the Secret Service.

Readability Statistics:

Counts:

Words 256
Characters 1224
Paragraphs 18
Sentences 10

Readability:

Passive Sentences 20%
Flesch Reading Ease 46.4
Flesch-Kincaid Grade Level 11.1

Averages

Sentences per paragraph 1.6

Words per sentence 17.7
Characters per word 4.8

Job Choices from the CDM Interest Inventory selected by Nova Scotia:

The ARTS Job Chart

COMMUNICATIONS

Columnist/Commentator 5-P
Technical Writer 5-G

EDITING

Film Editor 5-F

COMMERCIAL ART

Commercial Designer 4-P
Photographer 3-P
Set Designer 5-P

MUSIC

Music Arranger P
Singer P

DIRECTING

Radio/TV Production Assistant 5-F

ABILITIES that are my best:

Artistic
Language
Leadership
Manual
Musical
Persuasive
Social
Spatial
Teaching

BUSINESS Job Chart

ADMINISTRATION

Administrative Services Manager 3-F
Business Executive 5-P
Sales/Marketing Manager 3-F

SAFETY/LAW ENFORCEMENT

FBI Agent 5-P
Food and Drug Inspector NA
Occupational Health & Safety Specialist
5-G

ABILITIES that are my best:

Clerical
Computational
Language
Leadership
Math
Persuasive
Scientific
Social

SCIENTIFIC Job Chart

COMPUTERS

Computer Security Specialist 5-E

ABILITIES that are my best:

Artistic
Computational
Language
Leadership
Manual
Mechanical
Scientific
Spatial
Teaching