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REPORTS

TEN YEARS DOWN ? TO GO

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SSW NEWSLETTER/REPORTS
WERE WE READY?

Ten years ago, November 1978, was quite an eventful month for the SSW. Both the SSW Study Group meeting at ASHA and the SSW NEWSLETTER (later to become the SSW REPORTS) strutted across the stage for the first time. Now, some 40 issues later (with the editor far balder and grayer), the publication is still quite alive. Those of you who can attend our 11th Study Group meeting (Nov. 17, 4 p.m. at the Marriott-Copley, Boston College Room) will find that it also is still a lively forum dealing with central processing and central disorders.

The banner of volume 1, number 1 of the NEWSLETTER read "Are You Ready?". I wondered if anyone else was concerned about some of the problems that I was seeing. It began:

> "This is the SSW Newsletter - Are you ready? It is a (sample) vehicle for communicating SSW and related information. The Staggered Spondaic Word Test is now 18 years old [the current tally makes it 28 years old]. It is surprising that this strange little test has come this far with so little direction and communication. This issue is the first attempt at improving the situation."

> "There are some good reasons for an SSW newsletter: 1) The test is sufficiently complex in scoring and interpretation; 2) it is used with many populations; 3) it challenges diverse auditory functions ... 4) there is a wealth of clinical and research data available. A newsletter can be a useful means of reinforcing earlier learning, encouraging standardization, bringing new findings to the test users and stimulating a deeper understanding of the strengths and weaknesses of the SSW test."

> "In order for this newsletter to be successful it must be a group effort. Lots of people need to be willing to contribute a little and it has to be of sufficient interest for others to spend the few minutes to read it. I hope that you will be willing to share in this give and take."

Despite my obvious objectivity, I would like to suggest (not verify or prove) that the SSW REPORTS has pretty much lived up to our original expectations. REPORTS provides a network for studying, understanding and sharing information about the SSW.

While we narrowly missed getting the Nobel Prize three years in a row, you probably noticed that we got two Pulitzer Prizes, so our record is not too bad. We are putting in for an Oscar or two this year, in our continuing attempt to live up to your highest expectations.

You are probably asking yourself (just about now) what are some of the major accomplishments of the SSW REPORTS ... well, don't rush me ...

1) We actually put out the publication quarterly for 10 years (and accidentally re-ran only one article). We think that's pretty good.

2) We contacted interested colleagues, set up protocol and printed up the results of two national samples for control subjects by way of the SSW REPORTS. This joint effort by the readership was an important contribution to central testing throughout the US and Canada. For those contributed your time, your nephews and cousins, again MANY THANKS from MANY, MANY of us. I hope that you have found the new standard to be useful and take pride in your contribution.

3) If you want to talk about major accomplishments, try counting up the number of Dear Ackie columns (and that's powerful stuff).

4) Most importantly, over the years among the 220+ pages that have been written, you and your colleagues have taught as well as learned. The benefit of all this to our clients is of course the bottom line.

The skeptics among you are probably asking "Okay, okay, why all of this now?" Sorry, (sir or madam) during an election year I don't have to answer that question. Suffice it to say, I have asked some folks who have used the SSW continuously for 10 years or more to indicate how they use the test etc. (and why they haven't switched to a more youthful test).

Before we begin with the readers' comments I should mention a recent poll as to why people use the SSW. About 50% of audiologists polled said that they like to listen to the identification information in stereo. "This is the SSW test, ... This is the SSW test, ... List EC, ...List EC, ... channel 1 right ear. ...Channel 2 left ear." Another 25% like the 1000 Hz calibration tone (it has more charm than most other tests) and 24% of the respondents said that they get so much pleasure when they can say "No, I'm not!" each time they hear the introductory question. This means that only about 1% think the test is any good. I solicited the following letters from that 1%.

DARREL FEAKES SPEAKS

It is hard to believe that 10 years have gone by so quickly. Actually, I have been using the SSW since 1972. Because of the SSW, the scope of audiology has been expanded.

I use the SSW primarily to help identify central auditory processing (CAP) deficits in children. I administer it to every child I see for CAP evaluation. I like it because it takes a short amount of time to administer, it has been normed extensively, the test results provide you with a vast amount of information and the scoring, once you get onto it, is not that difficult. It is very nice to be able to show the parents, on the graph, where their child responded compared to children of the same age.

I would certainly encourage any audiologist who is doing CAP evaluations to include the SSW in their battery. As with any of the central tests, I have seen children who have all of the symptoms and the supporting history of CAP disorder who do not fail the SSW. This is not to take away any of the value of the SSW test, but rather to demonstrate the immense complexity of the auditory system. We still have a long way to go before we understand how it works. This is why I feel that a single test cannot not be used when evaluating this system. If a child has a CAP deficit, and a battery of tests is used, he will not pass all of them. If a single test is used, some of the children will not be identified.

The SSW contributes to untold numbers of children with communicative disorders by helping them to lead more productive lives because their CAP problem has been identified and proper adjustments have been made in their educational program.

Thanks Jack for all the information you have given me over the years during our phone conversations. By the way, I have not recently received a copy of SSW REPORTS. Do I owe you money? [Ed. note: YES.]

SHERRY REDLER'S MODEL PROGRAM

I admit to using the SSW for AT LEAST 10 years. As an educational audiologist, employed in the public school setting, the identification of central auditory dysfunction and the programming for remediation has been one of the major involvements of my professional life. Children with confirmed learning disabilities, children with suspected learning disabilities and children who "just don't seem to hear right" are referred for central auditory assessment. I administer the SSW to all who are seven years of age or older.

I have found the SSW test to be the most sensitive of my assessment instruments. Rarely does a child have difficulty on any other central test if he has done well on the SSW. Overall performance on the SSW gives me an indication of basic efficiency and maturity of the central auditory system. The different patterns help me to understand the kinds of difficulties the child may be experiencing in the classroom. Working with these children, as well as their speech-language pathologists, over a period of years, has helped me to develop specific recommendations for environmental management and direct intervention.

I have seen children improve just through a simple awareness that they do have a documented problem, or as a result of better classroom management of the problem. When the teacher becomes aware of the problem, this helps her to change the way she views the child and his difficulties. This frequently leads to a better or more effective approach in dealing with the child.

Lastly, the SSW is the instrument that I use for re-evaluations. The original assessment does little to determine if the problem is related to delayed maturation, a fixed deficit that will not greatly differ with time or a combination of the two. After the initial diagnosis, we proceed on the assumption that the problem may be improved with maturation, but that listening must be made as easy as possible in the classroom so that the child does not lose his motivation to learn. If retest shows that this is not the case, we switch our emphasis to developing compensatory strategies for a continuing problem. I feel that the SSW is most effective for purposes of this retest because my other tests too greatly affected by training and tend not to give me the more developmental information that I need and the further guidance from the SSW in terms of further programming.

I am sure that in the future we will find even more ways to use the SSW information to help children with auditory processing deficits.

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JAY LUCKER REVEALS INFORMATION RE: LD CHILDREN HIDDEN IN SSW SIGNS

Over the past 10 years I have employed the SSW test with many hundreds of LD children. My interpretations of the SSW test have proven to be very helpful in understanding the processing and learning needs of LD children as well as providing a means for determining specific areas and techniques for educating the LD child.

ORDER EFFECTS are felt to be due to memory deficits. Some children are found to have a primacy memory effect or ORDER L/H, which indicates that their memory problems are in the area of retention and not in recall. Remedial work to improve decoding, labeling and identifying all appropriate labels (tags) by attributes for items could improve a child's memory abilities.

If an LD child makes more errors on the first spondee compared with the second, he/she has a an ORDER H/L or a recency memory factor. It is felt that the items are placed into memory, but the child has difficulties recalling them from memory. Remediation for this child could include verbal

rehearsal to strengthen the memory trace, association or linking to increase the connection between items, and recalling items by their attributes or categories.

Regarding EAR EFFECTS, the EAR L/H is felt to reflect problems related to coordinating information to be decoded. Many tasks in school require figuring out and following a specific sequence for processing during decoding, in the interpretation and understanding phases of learning. A child with a significant EAR L/H EFFECT could be said to be deficient in this area of learning. Remediation would be directed to training the child to find and utilize the proper organization and sequencing of information for decoding, understanding and interpreting.

I have seen the EAR H/L EFFECT in very few LD children. I can find no clear explanation for this effect. In addition, I do not have a sufficiently large sample to provide a correlation between this effect and learning problems.

The TYPE A PATTERN has been associated with reading, spelling and writing problems in LD children. It is felt that during reading, spelling and writing, the integration of decoding and encoding processes is impaired. This makes it difficult for the child with the TYPE A to integrate visual-linguistic-motor functions and causes poor organization of the information. LD children who display the TYPE A have difficulties in handling tasks which require both organization and integration. If the tasks can be organized for the child and all he/she has to do is to integrate the information, the child may do fine.

REVERSALS seem to be related to problems in organizing information for recall (at the encoding stage). Children with large numbers of reversals have been found to do well when a great deal of external organization is imposed on them. Remediation would be geared to develop external organizational strategies. Thus, checklists, or teaching children to organize information by placing items into categories, would be useful approaches.

The SSW-GRAM provides information especially regarding the ability of the child to handle and integrate information. Children with Lucker Type 1 patterns (single LC peak) have problems decoding linguistic information in a rapid and efficient manner. These children often do not understand some of the underlying or deeper meanings of messages. Implied ideas are lost or misunderstood. Handling these children most effectively requires that the teachers and other adults utilize language carefully to insure that the child does not misunderstand what is said. Remediation for these children has been found helpful if work is done to expand their usage and their understanding of language.

If a child's linguistic competencies are even weaker than those youngsters who have Type 1 patterns, removal or distortion of any part of a message may cause the child to loose the information and thereby lead to an overload. Such a child would yield a double peak or a Type 2 pattern. LD children who display this Type 2 pattern have been found to have the most severe language disorders. To deal with these children in an effective way, teachers must use simplistic language to explain ideas and concepts. 1) Tasks need to be broken down, 2) step-by-step procedures must be outlined, and 3) this information has to be learned and overlearned in order to have the children carry out the tasks accurately and efficiently. Remediation for these children requires a learning program with extensive training in language and listening.

Some LD children demonstrate normal SSW-GRAM results or Type N patterns. For most of these children the response biases provide the diagnostic information.

A RC peak that is greater than the LC peak in a right handed child, is a very unusual finding. I have seen it in only three LD children (who were confirmed to be right handed) over the past 10 years. However, I have seen the pattern in a lot of preschoolers with whom I have employed the SSW test. I feel that this Type R pattern is due to a very immature auditory processing system. That is, it might be normal for a 3 or 4 year old child, but not a 9 year old.

The above discussion summarizes how I have used the SSW test. As you can see it provides me with a great deal of information regarding processing styles, capabilities and deficits of LD children. By approaching the evaluation and interpretation of the SSW as described above, you will find that the SSW has a great deal to tell you about LD children.

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FRAN FRIEDMAN'S VIEW FROM BOSTON HARBOR

Seems like I've always used the SSW and I use it with each patient that I see in which central auditory function is in question. It's a really good test!

I apply the SSW to both site-of-lesion cases as well as learning disabled children. I always use it <u>en toto</u>. It doesn't pay to use only part of the test because you would save only a few minutes. After all, it takes about 15 minutes for the entire test (about 10 minutes to administer and about 5 to score and interpret).

I do not vary my use of the test. I try to apply it exactly as I learned it at the SSW Workshops. It doesn't pay for me to play around with the administration or scoring because it would reduce my confidence in exactly what was found.

Recently, audiology has not been getting as many neurology referrals as before, because of a new administrative priority system. This was not because the neurologists or audiologist felt that the work was not beneficial. In fact, I feel really good about the contribution that the audiologist makes to neurology, neuroaudiology and to the evaluation of CAP dysfunction.

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THE SSW IN THE HANDS OF DEANIE VOGEL, A SPEECH-LANGUAGE PATHOLOGIST?

I guess I can be considered an "old timer" when it comes to administering the SSW test. What's more I think I have attended every SSW Group meeting for the past 10 years.

I am a speech-language pathologist and <u>not</u> an audiologist. At the outset, I felt that I should not be dabbling in the SSW. Later I realized that the central auditory system is the place where speech pathologists and audiologists meet. As long as the audiologist obtains the peripheral hearing information, I can enter the CNS via the SSW without fear or trepidation. So you see, I depend on the audiologist, the peripheral hearing expert, to supply the puretone averages, SRTs and discrimination scores. Then, I administer the SSW test.

One of the high points of my career occurred when I was asked to cut and paste the first set of pictures used for the Competing Environmental Sound (CES) test. I was one of the first to hear "In this test you will hear some familiar sounds such as someone walking on snow or ice".

I began my SSW-CES career testing brain damaged patients, and then moved to testing learning disabled children. More recently as a speech pathologist at the Veterans Hospital in San Antonio, I became interested in adults with Attention Deficit Disorder (ADD). You may not be surprised that I have found the SSW test to be an important diagnostic tool here too. It aids me in both planning and focusing my therapy for patients with ADD.

JACK KATZ HAS SOMETHING GOOD TO SAY ABOUT THE SSW

The SSW has served for over 25 years in the evaluation of central auditory function. The work began with site-of-lesion studies which contributed an important conceptual base. It enables us to relate specific SSW signs with certain portions of the CNS. The many potential diagnostic features of the SSW permit this multidimensional analysis.

What I like most about the SSW is that it provides a framework by which we can understand a wide range of auditory problems and a strategy for checking these thoughts. Should the conclusions prove accurate when the notions are tested by use of other SSW features, performance on other tests or by information provided to the audiologist (from the school, parents etc.), then we can develop an appropriate management plan.

The SSW suggests that there are 3 or 4 major categories of CAP dysfunction:

1) Anterior response bias tends to indicate the presence of a Tolerance-Fading Memory (TFM) problem. These individuals generally have problems understanding speech in a background of noise and have short term memory deficits. This hypothesis can be crossvalidated by very poor performance on a speech-in-noise test. A memory deficit can also be tested directly. It is in this group that we find the quick responders on the SSW and on other tests. They are also likely to be inattentive and easily distracted by background noise.

2) Posterior response bias on the SSW is indicative of a Decoding problem. These individuals have impaired phoneme discrimination and phoneme memory problems. Their histories show that they are poor in phonics and tend to fail the Phonemic Synthesis test or sound blending tasks. Perhaps as a result of this slow or disordered system we often find that these individuals have poor receptive vocabulary (e.g., on the PPVT).

3) Type A patterns, and sometimes just a sharp LC peak may designate an Integration problem. In this category are individuals who have severe reading-spelling problems as well as very poor handwriting (and are sometimes labeled as "dyslexic"). Other folks who show these same signs but have much less severe learning difficulties, resemble the TFM subjects.

4) I am not clear if reversals on the SSW should be considered a separate category or whether it is a complicating characteristic with any of the other categories. Those with significant numbers of reversals would be in the Organizational problem group. The term is based on Jay Lucker's observation that these individuals tend to be sloppy and disorganized.

One should keep in mind that these categories frequently overlap one another. Nevertheless, you can see their relative influences on a particular individual and set up a remedial program to address these problems.

I feel that we must 1) study the SSW even closer to verify these categories further and to discover various sub-categories. 2) pursue new methods for remediating these difficulties. I believe if audiologists do not get into the business of providing more than just a list of classroom modifications when a CAP problem is noted that we will lose our place in this important field to other professions.

I am pleased that the SSW has served well, for so many people, for so many years. It has remained the most used central test among audiologists in the US (Oliver, 1988).

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