Senate Bill 142
Testimony in Opposition
Date: March 28, 2017

Chair Roblan and Senate Committee on Education Members,

I am Susan Farmer, a licensed teacher specializing in dyslexia. My credentials are listed for you and I would like to highlight the final bullet:

- B.S. in Education 1976, Peabody/Vanderbilt University.
- For 13 years have specialized in early reading intervention, learning disabilities, specifically reading/dyslexia
- Privately tutor children with reading disabilities
- 3-semester-hours course in Diagnosing and Remediating Dyslexia which did include content regarding Irlen syndrome symptoms and solutions

My testimony opposes SB 142. Screening for Irlen syndrome might seem reasonable at first, yet it is problemmatic in many ways. I hope you will allow me to explain all of the reasons I am prepared to express today.

1. Section 1(1) says

> Screenings shall be administered by an individual who meets qualifications identified by the State Board of Education by rule.

However, the Bill has no guidelines to assist the Board in determining those qualifications, yet Committee Members should know the Irlen Institute is the only place in the nation to purchase the $250+ pack of overlays each screener would need for screening students, along with any other required materials. And, the only people qualified to screen students are those trained by Irlen-authorized trainers. Unless the ODE hires out-of-state trainers, the only person in Oregon currently listed on the Irlen website as qualified to train staff is Marcia Davis, the person who requested this bill. If others are qualified, they are not on the list.

The training session lasts 2 full days, and I am told each trainer sets their own fees which are several hundred dollars for each trainee. Schools would be forced to pay this amount or they would have to hire someone else to screen their students. We currently have only 6 individuals in the state listed on the Irlen website as being qualified to screen students. (Those names are attached, although other screeners might not be on the list).

Screeners generally charge well over $100 per child. That is solely the screening to determine if a student needs colored overlays on their books and handouts to assist in the student's visusal system. Irlen also has filtered colored lenses, which require yet another screening to determine if the individual needs those. The Irlen website lists only 1 individual in Oregon qualified to screen for filtered colored lenses, and that is also Marcia Davis. The experience and qualifications to do that part of the screening would likely not allow time for anyone in the state to be trained in time to implement this law in September.

2. Section 1(3) says

> …. the department….shall develop training opportunities related to Irlen syndrome to assist elementary school teachers, special education teachers and reading specialists…

As I just explained, the only training opportunity available in Oregon seems to be through one person. The Bill is also not clear regarding whether the Bill's intent is for <u>each</u> of these types of staff members to be required to take the training, or is the training merely to be available as an option for those staff? Yet since the bill mandates screening, so clearly someone in the district must be trained.

3. The Bill also mandates screening for every 4th grader who "does not possess a reading ability consistent with grade level reading standards." Unfortunately, this language is extremely vague. It provides no specific method to determine the standard of being at "grade level." Will this standard be set by ODE, or will each district determine its own variable standard? Is the determination going to require a specific test, or is the judgement going to be merely by passing marks on a report card – which themselves will vary by teacher?

At what point, exactly, does a student cross the line between being minimally <u>at</u> grade level, to being <u>below</u> grade level? And when during grade 4 is this determination made – at the beginning of the year, the middle, or the end?

Which skills are being measured? Is it decoding? Is it rate of reading (fluency)? Is it comprehension? Or would a student need to be below grade level in <u>all 3</u> to meet the criteria for a screening?

Subsection (2) and (3) both mention the need to "accommodate" students with Irlen syndrome.

Does that mean the school must pay for multiple sets of each student's particular overlays that they are diagnosed as needing?

Does it mean the school must pay Irlen Institute several hundred dollars for a student's colored lenses, as well as buying the frame?

What if they break?

And is the school required to re-test students later, and provide a new pair if the child's color changes – which is not uncommon – rendering the first pair of glasses useless?

And let's not forget the time and cost to re-screen.

And is the Committee aware that screening each student takes 1.5 hours just for the overlay portion? I have no idea of the time-frame for screening for lenses.

Further, according to the Irlen website, students should first get a regular eye examination before Irlen screening. How will that be facilitated? Will the school pay for that, or will it require parents to provide that before they agree to screen the student for Irlen?

These questions need considerable thought.

Now I would like to shift my attention to my concerns about the concept of Irlen syndrome itself. No doubt, this Bill sparks interest because of the recent focus on dyslexia legislation. It is important for the Committee to know that Irlen philosophy is quite different than what science tells us about dyslexia.

Those of us in the field of dyslexia, including Dr. Thomas-Beck, the state's dyslexia specialist, are working hard to facilitate accurate and scientific factual knowledge about dyslexia. I am extremely concerned about the misinformation of dyslexia that the Irlen trainings would tell our teachers.

Just this morning, one of the staff members at Irlen told me that "dyslexia is an umbrella term for any reading problem." That is simply not true. There are very specific characteristics of dyslexia. The Irlen website states:

> "As many as half of the children and adults with perceptual processing problems are misdiagnosed with dyslexia. These individuals can be helped by the Irlen Method….. If your child has visual dyslexia, the Irlen Method can make a difference." http://irlen.com/reading-problems-dyslexia-learning-difficulties-the-irlen-method/ (retrieved 3/28/2017)

This is so misleading. Dyslexia is not a perceptual problem and has nothing to do with vision. In other words, if a person has received legitimate dyslexia testing, with standardized assessments in reading, phonological processing, and spelling, (among others), a mis-diagnosis would be very rare.

The fact is, there is no such thing as what Irlen refers to as "visual dyslexia." Multiple scientific studies have confirmed this. I have attached a handout compiled by me containing research proving that any attempt to diagnose dyslexia with tests of vision is not appropriate.

Lest I give the wrong impression, I want to clarify that I do believe in the existance of Irlen syndrome. I have heard enough from those I've had personal contact with, and those I highly respect, to discredit its existance. Certainly many people are helped by using colored overlays when reading, and by wearing filtered colored lenses. And I have even referred a few people to Marcia for possible Irlen screening, and will continue to do so.

Yet, I also believe Irlen is not teaching factual information and could wrongly diagnose students, and fail to send dyslexic students to those professionals for a full diagnosis. A huge percent of the questionnaire items which Irlen red-flags as being symptomatic of Irlen are actually symptoms of dyslexia.

On Irlen's "short" screening, the last 3 of the symptoms are the only ones that could not possibly be attributed to dyslexia:

Short Irlen Self Test

Do you skip words or lines when reading? Do you reread lines?
Are you easily distracted when reading? Do you lose your place?
Do you find it harder to read the longer you read? Do you need to take breaks often?
Do you use your finger or other markers? Does reading make you tired?
Do you get restless, active, or fidgety when reading?
Do you get headaches when you read? Do you read close to the page?

Do your eyes get red and watery?
Do you blink or squint?
Do you prefer to read in dim light?

And the long-form questionnaire has so many items on it that are descriptive of dyslexia that I did not attempt to list them. Any responsible person who saw those items checked should refer that student for a dyslexia evaluation, so dyslexia could be ruled out as a first step.

It is a great concern that Irlen screeners do not have thorough training in the diagnosis of dyslexia and the scientific facts regarding the symptoms. They are totally unable to distinguish between those who have dyslexia and those who might benefit from Irlen. To use Irlen as the first method of helping our vulnerable failing readers is irresponsible.

I have to agree with the the American Academy of Pediatrics which joined other professional organizations to say this about Irlen: "the expense of such treatment …may divert resources from evidence-based reading interventions." http://auspeld.org.au/wp-content/uploads/2014/08/Irlen-Lenses-and-Overlays-MUSEC-Briefing.pdf MUSEC Briefings, Issue 22, February 2010, retrieved 3-28-2017

I will not go so far as to say Irlen is unwarranted. I believe in Irlen, and in a perfect world, screening would be amazing. What is helpful is not always necessary. And what is necessary is not always the responsibility of the school.

Irlen can not take precedent over first conducting a full vision exam, and perhaps even some should be referred to a pediatric opthamologist to rule out other conditions. Irlen screeners can not substitute for or take precedent over appropriate dyslexia screening.

We have teachers grumbling and complaining about doing a 10-minute screen for dyslexia risk factors in our students. And that is far far more important than screening for Irlen.

I do believe that our legislators need to reserve expense and treatment first to recognizing and identifying the presence of dyslexia in a student, providing legitimate scientific remediation methods of multisensory research-based explicit instruction in phonological processing and reading

intervention. We are struggling enough just to weed through the implementation of teacher training for dyslexia. Throwing Irlen into the stewpot is a confusing distraction to what needs to happen for dyslexia intervention.

Not even the new dyslexia law has a mandate to test all 4th graders who are not at grade level. How I long for the day when that would be the standard for Oregon, albeit at Grade 2, and not waiting until Grade 4.

I sincerely appreciate your time and attention to the points in my testimony.

Thank you, and I can now answer any questions.

Oregon Irlen Screeners, retrieved from the Irlen.com website 3/27/2017

Marcia Davis, Diagnostician- authorized to train screeners)
City : SalemTel : 503-391-6928
Email: positivelearning1@gmail.com

Joan Craig, Screener
City : Albany/Jefferson
Tel : 541-327-1363
Email: joancraigcenter@q.com

Sue Luker, Screener
City : Eugene
Tel : 541-232-5605
Email: noteworthylearning@comcast.net

Debra Nickerson, Screener
City : Grants Pass
Tel : 541-890-9818
Email: IrlenScreeningOR@gmail.com

Judy Becker, Screener
City : Monmouth
Tel : 503-508-2451
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Melinda Messore Holbert, Screener
City : Portland
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Vision Therapy – Will it Help your Child's Reading Difficulties?

By
Susan Farmer

When children struggle to read, parents often turn first to an eye doctor, to rule out whether or not their child has a vision problem. However, reading is actually not a visual task. Although we use our eyes to read, learning to read is primarily a phonological task in the areas of the brain responsible for processing sounds in words. So when a child is struggling to read, there needs to be a determination of the child's phonological processing skills, moreso than the vision skills.

Of course, it is important to rule out a vision problem which would require glasses. If your child's vision does not need glasses, be extremely careful if the optometrist is recommending when your child has not yet become a smooth, fluent reader. Vision therapy is typically suggested by an optometrist which is sometimes called a behavioral optometrist who specializes in the behavior of the eyes. Vision therapy might help some children, particularly those with issues in depth perception or a "lazy" eye muscle, it does NOT address reading difficulties. Yet, research indicates that vision therapy is often over-prescribed for poor readers.

Although vision therapy will not generally harm a child, it is not the first course of treatment recommended for a reading problem. Any improvement made will likely be short-lived. Children receiving vision therapy will not usually make solid, lasting gains in reading, because the root of the problem is still not addressed: the brain's difficulty with phonological processing – how a brain process sounds in spoken language – not a difficulty in visual processing.

The early research studies in visual processing indicated that visual differences in children seemed to be a result of the lack of *experience* in reading, due to reading difficulties. For instance, by the time a parent is concerned their child's reading development is lagging, the child is likely two to four years less experience in reading than the child's same-aged peers. So the eyes have had less experience in scanning lines of books.

Dyslexia scientists have understood this quite awhile, and today we have documented evidence with carefully-controlled scientific research, proving that "diagnosed" visual processing differences are more directly related to a child's lack of reading experience, and tend to go away on their own when the child becomes more fluent in reading.

One such study was published June 6, 2013 in the journal *Neuron*. The senior study author is Guinevere Eden, director of the Center for the Study of Learning at Georgetown University Medical Center. "When we ask children to learn to read, we are asking them to do something that is very difficult. Learning to read changes the brain," Eden said. "If you are a struggling reader because of your dyslexia, you don't have as much opportunity to read as the other kid in your class, and so your brain doesn't get the chance to change as much. The visual deficit is there, but our study allowed us to conclude **it's there as a consequence of not having the same opportunity to read as children without dyslexia**."

Dyslexia is a condition in which children struggle to process the sounds in words, also known as phonological processing. Skills such as rhyming, hearing the beginning/middle/ending sounds of a word, and blending sounds together to make a word, all rely on the ability of the brain to process sounds. This disconnect causes difficulties in reading, spelling, and frequently in written expression.

When the dyslexia is managed through instruction in phonological processing and then decoding, and as children become more fluent readers, visual processing issues typically resolve on their own. Unfortunately, the opposite is not true – vision therapy will not address the underlying phonological issues of dyslexia.

The study found that visual problems noted in people with dyslexia likely are a result of the learning disorder rather than the cause, Eden said. Children without dyslexia appeared to have the same level of visual processing activity as dyslexic kids, when **matched by reading level** instead of age... children with dyslexia who received intensive tutoring in **reading skills**, experienced a subsequent increase in visual system activity. Therefore we "...shouldn't focus on the visual system as a way to diagnose dyslexia or treat dyslexia."

Watch a video clip of Dr. Eden discussing her study: www.cell.com/neuron/abstract/S0896-6273(13)00395-4

Dr. Eden is a well-known and respected leading neuroscientist in the field of dyslexia, who I have had the fortune of hearing her present during a dyslexia conference. For more information about Dr. Eden: http://www.csl.georgetown.edu/members/faculty/EdenG.shtml

This link is to an excellent *WebMD* article regarding Dr. Eden's study at Georgetown: http://www.webmd.com/brain/news/20130606/vision-dyslexia-not-linked-study?print=true

If you prefer to read the full research details, you can access the *Neuron* article here: www.cell.com/neuron/pdf/S0896-6273(13)00395-4.pdf

To summarize Dr. Eden's research, there is now more support than ever to delay visual therapy until after the brain has had sufficient time to be retrained through dyslexia tutoring intervention. The eyes will usually "catch up" to allow the brain to change its visual deficits.

Any visual exercises to correct "deficits" noted in tracking and/or a type of eye movement called "saccadic" are probably unnecessary and are likely due to lack of experience in reading rather than a visual deficit. This is because the optometrist's tests are scored by age and not by reading experience. When you factor out the lack of reading experience, and score the tests by reading level and not by age, the tests are normal.

Students with low scores in an area called "automaticity" by optometrists, likely have a language difficulty in what is more appropriately called Rapid Automatic Naming (RAN), which is present in about half of the children with dyslexia. When a person struggles with both RAN and dyslexia, this is called "double deficit dyslexia." Such difficulty can make a vision therapy

regimen with picture and letter charts very frustrating, because the student is not able to quickly name the objects/letters even if his eyes are fully focused on the item.

Vision therapy might possibly make reading more comfortable and may allow reading for longer periods of time, yet therapy will not directly improve skills in reading. When vision therapy is recommended for problems with tracking, saccadic eye movement, or trouble with "automaticity," it is generally best to address corrective reading instruction prior to vision therapy. After the child is fluent in reading, and if the visual processing issues have not self-corrected, therapy might be beneficial. On the other hand, vision therapy might be useful for other types of visual deficits such as depth perception, and problems with an eye which drifts inward or outward.

There was additional research reported on May 25, 2015 in *HealthDay News*, a publication of *US News and World Report*. This study again proves eye training or other vision therapies will not treat dyslexia in children. Researchers tested over 5,800 dyslexic children and found 80% of them with had fully normal vision and eye function in all the tests. "A slightly higher proportion of those with dyslexia had problems with depth perception or seeing double, but there was no evidence that this was related to their reading disability. After making adjustments for other contributing factors, this finding seemed due to chance."

This study is much larger than previous studies, and its findings support those of earlier studies. "The biggest issue here is that parents of dyslexic children should not waste a lot of money on vision training for their children with dyslexia," Dr. Mark Fromer said. "It won't work." See the June 2015 issue of *Pediatrics* for the actual research information details.
http://health.usnews.com/health-news/articles/2015/05/25/dyslexia-unrelated-to-vision-problems-study

In March 2011, a 41-page article entitled "Joint Technical Report—Learning Disabilities, Dyslexia, and Vision" appeared in the journal *Pediatrics*. Vision therapy was one topic extensively covered in this report. It discusses the lack of valid research conducted regarding therapy. Page 830-834 has information about various visual skills. Another section begins in column three of p. 836-837. Pages 841+ includes a section about behavioral optometry, and page 846 begins an excellent summary on vision therapy. The report mentions the need for additional research on certain topics. Dr. Eden's research at Georgetown, and other more-recent studies had not yet been conducted when this technical report was published. Due to the research of both Dr. Eden and Dr. Fromer, we now have even more evidence in favor of rejecting vision therapy as a first treatment for reading problems.
http://www.aao.org/Assets/ac884ad9-5aac-4228-bcc7-c8000d907071/634965436412670000/joint-technical-report-published-copy-pdf

Finally, some parents seem concerned when children lose their place in reading, or want to use their finger to track across a line of text. There is usually no need to worry if the child is young. Children find it easier to read when using a finger under a word. For many years, there was a philosophy (with no research behind it) saying it is harmful to use a finger when reading. However, using a finger to "track" across the sounds in a word, and across the line of the sentence is actually very beneficial to assist in learning to read.

Using a finger is often encouraged by reading experts. Gradually, a child will likely stop using his finger on his own. Some students actually need a reminder to "use your finger" if they misread, to assist with keeping their attention on one word at a time. Most students seem to stop using their finger around 4th grade if they are good readers. If not, they might continue using a finger or a bookmark. If a good, fluent reader is still using a bookmarker or their finger beyond 4th -5th grade reading level, and you feel the finger or bookmark is slowing him down, then you might be concerned.

For more information about other symptoms of dyslexia, check out this very extensive and reliable website. Bright Solutions for Dyslexia: http://www.brightsolutions.us

Additional dyslexia information: International Dyslexia Association: http://www.eida.org

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Written October 2016 by Susan Farmer, a licensed teacher and a dyslexia specialist in Salem, Oregon. Susan's daughter had vision therapy in 2004 for nearly a year with minimal results before finally being told that "something else" is going on. That "something" was later determined to be profound double-deficit dyslexia. Since then, Susan's passion to learn about dyslexia has led her to specialize in the field. Now she offers assessments in the area of reading and math, to assist in determining the presence of dyslexia. She is also a certified tutor in the Barton Reading and Spelling System, a program based on the Orton-Gillingham approach of multisensory reading intervention.

Disclaimer: This article is intended for informational and educational purposes only. It is not intended to substitute for a thorough evaluation regarding your child's visual health. Instead, it is intended to assist parents in determining the foundational cause for a child's reading difficulties, and to encourage assessments in the area of dyslexia as the most common cause of reading difficulty.

For those parents located in the Salem area who decide to go to a developmental optometrist, Dr. Keirsten Eagles of Eagle Eye Vision in Keizer [http://www.eagleeyevisioncare.com] is the only one in the area I am aware of. In Silverton, there is Dr. Terri Vasche' at Silver Falls Eyecare [http://www.silverfallseyecare.com]. Both doctors trained at Pacific University in Oregon.

The clinics of Pacific University in Forest Grove and Portland give discounts based on income. Interns do the exams and treatment, so the level of expertise will vary depending on the intern as well as who the supervising doctor is (various doctors rotate on different days, with some more knowledgeable than others). Based on personal knowledge and experience, my recommendation is to attend a clinic on a day when Dr. Bradley Coffey or Dr. Graham Erickson are the attending supervisors. These doctors are both on staff at the University. Although they might not agree with the research on vision therapy, they do know when to admit that therapy is not helping a child.

There is also a home vision therapy program you can purchase with a lot of the types of exercises done in vision therapy. Although the website says it is not intended to use alone, it might help for a child with mild issues. Your optometrist must sign their "release form" in order for you to purchase direct from the company. The optometrist can also assist with telling you which exercises are specific to your child's deficits. http://www.oepf.org/product/visionbuilder-home-version-0

Issue 22,
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MUSEC Briefings

http://auspeld.org.au/wp-content/uploads/2014/08/Irlen-Lenses-and-Overlays-MUSEC-Briefing.pdf

Macquarie University Special Education Centre

Irlen Tinted Lenses and Overlays

Keith J. Hyatt

Statement of the Problem

Reading is one of the most important academic skills learned in school and one that many students struggle to master. While working with adults exhibiting reading problems in the 1980s, Helen Irlen claimed to have discovered a visual perceptual condition responsible for numerous reading problems. The condition, which is not recognized in the medical field, goes by several names: scotopic sensitivity syndrome, Irlen syndrome, and Meares-Irlen syndrome. Irlen claimed that individuals with the syndrome had difficulty processing full spectrum light which resulted in reading problems such as words drifting on the page or appearing blurred. She also hypothesized that the syndrome was responsible for difficulties with a wide range of important life activities including reading, math, handwriting, coordination, concentration, starting tasks, and sitting still. The Irlen Institute claims that 50% of children and adults with reading problems have Irlen Syndrome and that 12-14% of good readers and gifted students also have the syndrome.

Proposed Solution/ Intervention

Individuals complete a rather subjective assessment which may include interviews and self-reports to determine whether they have Irlen Syndrome. Use of tinted lenses/overlays is credited with ameliorating perceptual processing problems and/or distortions making it easier to see text. The Irlen Institute cautions that only tinted overlays/lenses provided by them will be effective.

The theoretical rationale – how does it work?

Irlen claims that the condition appears to be caused by a defect in a visual pathway that transmits information from the eye to the brain. The defect purportedly causes a problem with timing and filtering out specific wavelengths of light via tinted lenses/overlays helps the pathway function normally.

What does the research say? What is the evidence for its efficacy?

There is no objective evidence that Irlen syndrome actually exists: several researchers have noted that the symptoms are consistent with known visual problems. There is no credible body of research supporting the use of tinted lenses/overlays – the studies tend to contain significant flaws and the findings are inconsistent.

Conclusions

In a joint statement, The American Academy of Ophthalmology, American Academy of Pediatrics, American Association for Pediatric Ophthalmology and Strabismus and American Association of Certified Orthoptists firmly repudiated the use of lenses, stating that there was no scientific evidence supporting their use. The expense of such treatment is unwarranted and may divert resources from evidence-based reading interventions.

The MUSEC Verdict:

Not Recommended

Key references may be found at:
http://www.musec.mq.edu.au/co_brief.aspx

Research with us at MUSEC - visit http://www.musec.mq.edu.au/research.aspx

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