Low Vision Rehabilitation: A Practical Guide for Occupational Therapists **SELF STUDY**

Syllabus for all courses in the series.

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Suggested Audience: This self-study is designed for students or therapists (occupational, speech, recreation therapists, vision rehabilitation therapists, and orientation & mobility therapists, gerontology specialists) who work with adults. The text and guizzes are suited for Occupational Therapists or Certified Occupational Therapy Assistants preparing for AOTA Specialty Certification in Low Vision (SCLV) or anyone with a bachelor's degree who is preparing for the examination for ACVREP certification as a low vision therapist (CLVT) and/or Vision Rehabilitation Therapist (CVRT). VisionEdSeminars, the provider of this continuing education, is an approved provider of (AOTA) the American Occupational Therapy Association and (ACVREP) the Academy for Certification of Vision Rehabilitation & Education Professionals.

Course Overview:

The self-study is organized into 26 chapter tests that have been written to accompany the book: Whittaker, SG, Scheiman, M, Sokol-McKay, D. Low Vision Rehabilitation: A Practical Guide for Occupational Therapists. Slack; Thorofare, NJ, 2015. This book is part of a selfstudy program that offers the basic information required by a therapist to provide basic and advanced low vision rehabilitation services. The self-study is designed with the intent that the student carefully reads a chapter, and thereafter completes each chapter test. Once the test is completed, the student can review the questions. When the student passes a test (80% correct criterion), a certificate of completion can be downloaded usually for 2 hours of continuing education per chapter. It is recommended that the student read and immediately take the test. Doing the study with a group or mentor is highly recommended.

The book and all of the tests include the following topics: 1) an understanding of more common causes of vision impairments, 2) functional vision evaluation, 3) evaluations of occupational performance, 4) identification of visual and possible psychosocial barriers to occupational performance, and 5) treatment focused on removal of identified barriers to successful occupational performance. Treatments include 1) use of optical and electronic devices, and 2) teaching adaptive techniques that maximize performance using both visual "low vision" and non-visual "blindness" techniques.

The content of the courses is presented in the book. There may be accompanying presentations or simulations to clarify or illustrate more difficult points covered in the chapter but a thorough reading of each chapter is required for the student to understand the content sufficiently to pass all of the tests. We recommend that the student read the chapter, and only when the chapter is finished, enroll in the course and immediately take the exam that is pertinent to that chapter. The test provides feedback including page references whether questions are correctly or incorrectly answered and, if incorrect, will direct the student to the pages in the chapter where the information related to the question can be found. When a score of 80% or higher is earned, a certificate of completion will be issued. The tests can be retaken at no additional cost.

Fees and tuition

In the self-study, the student pays on a chapter-by-chapter basis allowing for considerable flexibility in scheduling the tests and scheduling of payments. If you are having difficulty completing the chapters and tests on your own, you will only pay for the chapter tests that you complete. In order to allow students to pay for, complete and obtain separate certificates, each chapter test is posted as a separate course.

The fee is based on the number of credit hours per course, usually 2 credit hours per course. Courses range from 1 to 4 hours. Courses that include only a test are priced at \$10 per credit hour (10 questions per credit hour). Courses that include supplementary presentations, simulations, and supplemental handouts are priced at \$15 per hour of CE credit. We plan to add live interactive teaching by Summer of 2016.

Chapter tests may be taken separately and in any order. It is highly recommended that courses be taken in the same sequence as the chapters. Again, a certificate of completion can be downloaded once an exam is passed for each chapter test passed.

We offer a guarantee of satisfaction or a full refund will be issued. We ask that you email a reason for your refund request so we can improve our courses and delivery. All reasons will be accepted.

AOTA and ACVREP approval and credits:

Level: AOTA and ACVREP credits are 2 hrs per course and most are at an intermediate level; one course is at an advanced level. Some that include presentations are 3 hrs

If your state requires direct reporting by the provider of continuing education, please contact visionedseminars@verizon.com

Recommended courses of study

An OT or any qualified professional who plans to specialize in low vision and/or who seeks a SCLV, CLVT or CVRT.

In general, the authors recommend that an individual, in preparing to apply for an SCLV or for the right to take the CLVT examination should read the textbook chapter by chapter in the sequence that chapters are presented in the. Chapters 12 and 16 – 20 include practical visual and non-visual adaptive techniques which can be immediately implemented in your practice setting and often are minimally addressed in typical academic OT programs. We recommend working with an optometrist specializing in low vision if possible to apply **optometric** material contained in Chapters 8, 9,10,11,13 and 14. Chapter 20 is particularly recommended for those who observe increased incidence of diabetes in their clients and want to incorporate adaptive diabetes education into their practice.

A COTA who plans to specialize in low vision

We recommend Chapters 1-6 in order. Chapter 7 and 8 on evaluation are optional but are recommended for a full understanding of the principles behind the treatments. Chapters 12 and 16-19 are the core courses in ADL and IADL training for COTAs working with visually impaired clients in rehabilitation inpatient and outpatient facilities, nursing

homes, personal care facilities, independent living apartments or those in continuum of care communities. The remainder of the book and tests are recommended as the practitioner's interest develops.

A General OT or students. Possible specialization in low vision

Chapter 1 is necessary. Chapters 6, 9, 11 and 12 contain critical background information, as well as discussion of assessment and environmental factors that will be used by a general OT. Chapters 6 and 9 have broad applicability to other disabilities as well. Chapters 15-19 contain specific adaptive techniques (both visual and nonvisual) and devices which can immediately be used in a practice setting. Chapter 20 is particularly recommended for those who observe increased incidence of diabetes in their clients and want to incorporate adaptive diabetes education into their practice. The chapters may also be reviewed from time to time on an as-needed basis when specific circumstances arise. If you have taken the Vision Ed Seminars course entitled, An Introduction to Low Vision: First Response Interventions you can skip Chapter 1.

A Specialist in low vision who has completed a course of study in Low Vision elsewhere.

Chapters can be selectively read and tests taken in any order. The book will provide a somewhat different perspective especially on the evidence-basis for treatment (summarized in Chapter 9) and more in-depth coverage than other courses of study in respect of principles of optics and the vision science behind treatment (Chapter 5, 9, 10, 13-advanced) and the functional vision evaluation (Chapter 8). The book also includes smartphones and tablet computers throughout which are now in widespread use as well as the latest is electronic devices in Chapter 14. Chapter 21 contains insurance and Medicare documentation requirements that have changed substantially since 2014 including G-codes to use as well as ICD-0 coding for vision disability and offers information necessary to start a practice. Further, Chapters 12 and 16 – 19 include practical visual and non-visual adaptive techniques which can be immediately implemented in your practice setting and are often minimally addressed in typical academic OT programs. Finally, Chapter 20 is particularly recommended for those who observe increased incidence of diabetes in their clients and want to incorporate adaptive diabetes education into their practice.

A COMS or CVRT

who wishes to provide low vision rehabilitation or otherwise enhance their practice

We recommend Chapter 1, a quick review of Chapters 2-4 for updated information and more in-depth coverage of neurological vision impairment, Chapters 7-14 includes information more specific to low vision therapy. Chapters 12 and 16 – 19 include updated practical visual and non-visual adaptive techniques. Chapter 9 on treatment for neurological impairment and Chapter 20 on diabetic management may be new to you depending on your educational background.

Supplementary materials

Online Course materials provided with book purchase (http://www.healio.com/books/lowvisionforms)

- **Educational handouts for clients** for patients with instructions for sighted guide, glare, magnification, and compensatory scanning for field restrictions. These also provide a simple summary of interventions for the therapist.
- **Vision evaluation forms**. These forms are in Word docx format and may be customized to your institution to provide efficient documentation, and guide the reasoning process.
- Advertising materials for your practice. These forms are in Word docx format and may be customized to your institution.

General Test Format

The questions in the exam will be in the form used by the Academy of Certification of Vision Rehabilitation Professionals (www.ACVREP.org) certification exam. The reader should obtain the examination guide from the ACVREP website for up-to-date information.

ACVREP exams use multiple choice exams where multiple correct answers may be required. If more than one answer is required, then the stem of the question will indicate how many correct answers are required. Examination standards prohibit the use of negative phrasing (e.g., "Which answer is "not" correct?" or as possible answers "none of the above", "all of the above", or multiple answers like "A & B are correct"). ACVREP examinations may have multiple answers. If there are multiple answers, the stem of the questions clearly indicates how many answers are expected.

The certification exam questions are all designed to be at the level of the minimally competent professionally. Unlike the ACVREP exam, questions for the chapter tests will be a mix of more difficult or easier questions and are sometimes leading questions that are designed to have some instructional value. We recommend purchase of the ACVREP study guide for questions that are more typical of the exam.

In the book to evaluate clinical judgments, the test items sometimes ask for the "best" or "most cost-effective" assessment, device or intervention. This wording implies that some distracters <u>could</u> be correct, but are marked as incorrect because they are less practical given the clinical scenario. These types of questions are rare on the certification examination but do occur as well. Successful completion of the chapter tests should provide preparation for successful completion of the ACVREP examination except the topic of pediatrics.

The AOTA exam for specialty certification in low vision uses an essay type format. The exam questions are provided by AOTA. www.AOTA.org

Instructional Objectives and Special Instructions

Chapter 1: Screening for Vision Disability

(Introductory level 2 hrs., 0.2 AOTA AND ACVREP CEU)

The exam focuses on how to screen for vision disability. The materials on evaluation and "first response" interventions are covered in depth by other chapters in the book and are not included in this test. For those who do not plan to specialize in low vision rehabilitation, we recommend a separate introductory level 7 hr course (Introduction to Low Vision: First Response Interventions).

Included: 1) lecture presentation, 2) 20 question test.

The student will...

- Describe a model of care that includes first response interventions that address vision disability when vision disability is not the admitting diagnosis.
- Name six different types of visual impairments, and common pathologies.
- Name performance signs associated with each type of sensory vision impairment (impaired visual acuity, contrast sensitivity, central field loss, peripheral field loss and oculomotor dysfunction) that may be used to screen for vision disability.

Chapter 2 Epidemiology, History and Clinical Models of Low Vision Rehabilitation

(Intermediate level 2 hrs., 0.2 AOTA AND ACVREP CEU)

The student will...

- Define blindness and low vision including the criteria to define visual impairment
- Describe the prevalence and incidence of low vision and blindness in the United States, including a list of the leading causes of low Vision.
- List the various professionals involved in the care of clients with low vision including a description of the role of each of these professionals.
- Describe the role of the occupational Therapist in the management of clients with low vision.

Chapter 3

Basic Anatomy, Physiology and Development of the Visual System

(Intermediate level 2 hrs., 0.2 AOTA AND ACVREP CEU)

The student will...

- Describe the basic anatomy and physiology of the orbit, eyelids, and eyeball.
- Describe the basic anatomy and physiology of the lens, vitreous, choroid, and retina.
- Describe the basic anatomy and physiology of the visual pathway.

Chapter 4

Eye Diseases Associated with Low Vision

(Intermediate level 2 hrs., 0.2 AOTA AND ACVREP CEU)

The student will...

- Describe the functional problems associated with age-related macular degeneration, diabetic retinopathy, glaucoma, cataract, demyelinating disease, acquired brain injury and how these problems would impact occupation.
- Describe the prevalence of age-related macular degeneration, diabetic retinopathy, glaucoma, cataract, demyelinating disease, and visual filed defects.
- List the risk factors for age-related macular degeneration, diabetic retinopathy, glaucoma, cataract, demyelinating disease, and visual filed defects.
- Summarize the medical management of age-related macular degeneration, diabetic retinopathy, glaucoma, cataract, demyelinating disease, and visual field defects.

Chapter 5

Optics of Lenses, Refraction and Magnification

(Intermediate level 2 hrs., 0.2 AOTA AND ACVREP CEU)

Correction Figure 5-4 illustrates hyperopia not myopia.

The student will...

- Describe the difference between a convex, a concave, and a cylindrical lens and write what a typical prescription would look like for each of the lenses.
- Determine the accommodative demand at a given distance.
- Determine the focal distance of a given plus lens.
- Use the concepts and formula for relative size, angular and distance magnification to achieve a given change in retinal image size.
- Given a size magnification and near distance, calculate equivalent power.
- List factors that would affect field of view when using a low vision device.

Chapter 6:

Psychosocial and Cognitive Issues Related to Vision Disability.

(Intermediate level 2 hrs., 0.2 AOTA AND ACVREP CEU)

The student will...

- Describe signs of the six psychosocial barriers to successful recovery from vision disability; 1. The type of vision loss and stage of coping, 2. Cultural and family reaction: caregiver dependence, 3. The life stage, 4. Other significant life events, 5. Patient's expectations and the stigma of blindness, 6. Self-concept, 7. Personality.
- Describe signs of cognitive barriers to successful recovery from vision disability.
- Describe the steps in the success-oriented approach to treating psychosocial and cognitive impairments associated with vision rehabilitation.
- Describe signs of depression and interventions that address depression as a barrier to successful rehabilitation.

Chapter 7

The Optometric Low Vision Evaluation

(Intermediate level 1 hrs., 0.1 AOTA AND ACVREP CEU)

The student will...

- Define common abbreviations used in a the clinical evaluation by an eye-care provider.
- Interpret a prescription for eye classes by an ophthalmologist or optometrist and describe how the specified refractive error will affect visual function with and without correction.
- Describe how the condition specified in an eye-care provider's eye report will affect visual function, and treatment planning.

Chapter 8-A

The Occupational Therapy Low Vision Evaluation of Visual Acuity, Contrast Sensitivity and Lighting

(Intermediate level 3 hrs., 0.3 AOTA AND ACVREP CEU)

The functional vision evaluation forms the basic structure of our therapeutic approach. Rather than using trial and error to select devices, the evaluation indicates specific barriers to occupational performance that are then targeted by therapy. First we describe measures of occupational performance and interviewing techniques that help the therapist identify specific activities that are disabled. The reminder of the chapter describes vision evaluation.

The visual evaluation methods do not just give us numbers; the methods are designed to lead you to specific interventions such as type and power of magnification devices, the amount of light, the need for contrast enhancement or specific scanning strategies that will prove effective. Note: Chapter 6 describes methods to identify cognitive and psychosocial barriers that are not covered in this Chapter.

Because vision evaluation is so important for successful treatment, sections 8-A and 8-B cumulatively include a lecture presentation that is rich with video, animations and examples that supplement the Chapter.

Included: 1) 20 question exam, 2) approximately 1 hr. presentation, 3) video simulations of portions of a vision evaluation that will be the basis of the exam.

The student will...

- Describe and interpret an evaluation of occupational performance, the criteria for an ideal formal test of occupational performance and informal strategies used to elicit functional problems associated with these visual impairments.
- Describe the correct test administration procedure for recommended tests of near visual acuity, contrast sensitivity and a lighting evaluation.
- Record the results, and predict expected visual function and performance problems, given a video recording of test performance or a written record of test results using common notation and abbreviations.

revision: 2/7/2016 - JMM

Describe courtesies used in interaction with people who have visual impairment.

Chapter 8-B

The Occupational Therapy Low Vision Evaluation of Central Visual Fields, Peripheral Visual fields, Adaptive scanning and Oculomotor Function

(Intermediate level 3 hrs., 0.3 AOTA AND ACVREP CEU)

The functional vision evaluation forms the basic structure of our therapeutic approach. Rather than using trial and error to select devices, This presentation and test focus on conditions that an OT will encounter working in a medical rehabilitation setting.

Because vision evaluation is so important for successful treatment, sections 8-A and 8-B a lecture presentation that are rich with video, animations and examples that supplement the Chapter.

Included: 1) 20 question exam, 2) approximately 1 hr. presentation, 3) video simulations of patient testing that will be the basis of the exam.

The student will...

- Describe the correct test administration procedure for recommended tests of central field loss, peripheral field loss, oculomotor screening and a lighting evaluation.
- Describe and interpret an evaluation of occupational performance, and informal strategies used to elicit functional problems associated with these visual impairments.
- Record the results, and predict expected visual function and performance problems, given a video recording of test performance or a written record of test results using common notation and abbreviations.

revision: 2/7/2016 - JMM

• Describe courtesies used in interaction with people who have visual impairment.

Chapter 9

Overview of Treatment strategies and the evidence-basis for practice for Low Vision Rehabilitation

(Intermediate level 2 hrs., 0.2 AOTA AND ACVREP CEU)

The student will...

- Describe seven areas of treatment in low vision rehabilitation.
- Describe the differences in teaching approached between pedagogy and andragogy.
- Describe the elements of goal writing and differentiate correctly written performance goals from incorrectly written goals.
- Define a case controlled experimental design, a randomized clinical trial and how an individual clinician can collect adequate evidence to justify treatment.

Chapter 10

Foundation Skills and Therapeutic Activities for Low Vision Rehabilitation

(Intermediate level 2 hrs., 0.2 AOTA AND ACVREP CEU)

The student will ...

- Define size magnification, relative distance magnification, and dioptric power.
- Given a scenario that includes a target size and target distance, estimate how equivalent magnification can be achieved when either size or distance are changed.
- Define measures of luminance, illuminance and glare and how changing a light position can affect glare and illuminance.
- Describe methods for evaluating eccentric viewing in people who have central scotomas and how scotoma positions in different viewing positions will affect reading and other visual activities.
- Interpret eye reports and observe eye positions of clients during tangent screen, clockface and functional tasks in order to to train someone to adopt adaptive eccentric viewing
- Describe evaluation of a person's potential to use tactile techniques and identify correct tactile scanning techniques for a given task.

Chapter 11

Managing Peripheral Field Loss and Neglect

(Intermediate level 2 hrs., 0.2 AOTA AND ACVREP CEU)

Correction: Figure 11-7 illustrates an inferior homonymous quadrantanopia.

The student will

- Demonstrate or describe the administration of confrontation field testing, tangent screen testing using a laser light and wall, and expected reading errors and mobility problems with right, left homonymous hemianopia and a altitudinal defect.
- Describe methods for evaluating and differentiating visual field loss from spatial neglect.
- Describe common functional problems and compensatory scanning techniques and Fresnel prism placement used with just a field loss.
- Describe non-visual impairments and common psychosocial problems associated with spatial neglect.
- Describe interventions used to ameliorate the symptoms of and compensate for spatial neglect.

Chapter 12 Environmental Modifications for Low Vision

(Intermediate level 2 hrs., 0.2 AOTA AND ACVREP CEU)

Given a clinical scenario including the results of a functional evaluation (Chapter 8) the student will

- Select the most effective environmental modification including non-visual modifications.
- Select the type, and characteristics and position of a light that will optimize performance of a visual task.
- Select the design of a specific room that will optimize visual and non-visual performance of an activity.

Chapter 13 Optical Devices and Magnification Strategies for Low Vision

(Intermediate level 2 hrs., 0.2 AOTA AND ACVREP CEU)

Given a clinical scenario including the results of a functional evaluation (Chapter 8) the student will

- Correctly position the device to optimize performance of a specific task.
- Identify and correct problems due to incorrect selection of a device or incorrect positioning and handling of a device.
- Compare the properties (e.g., magnification and field of view) of different devices and suitability for use with other disabilities (e.g. motor, cognitive).

Chapter 13

Estimating Magnification and Selecting Devices to Compensate for Low Vision

(Advanced level 2 hrs., 0.2 AOTA AND ACVREP CEU)

Given a clinical scenario including the results of a functional evaluation (Chapter 8), including the magnification required to perform a task and a refraction, the student will

- Calculate the equivalent magnification of near and distance devices given the required target size, and working distance.
- Select a device and magnification that will enable performance of a specific task.
- Identify special optical problems or visual problems often associated with different types of devices that might explain a problem a client is having with a device.

Chapter 14 Computer Technology in Low Vision Rehabilitation

(Intermediate level 2 hrs., 0.2 AOTA AND ACVREP CEU)

Given a clinical scenario including a goal task, the results of a functional evaluation (Chapter 8) and/or the visual requirements for a task, the student will

- Select possible devices and the best device that will enable task performance.
- Set up a device with the magnification and contrast required to perform a task.
- Identify and correct a problem a client might have using an electronic device.

Chapter 15 Reading and Writing with Low Vision

(Intermediate level 2 hrs., 0.2 AOTA AND ACVREP CEU)

Given a clinical scenario including the results of a functional evaluation (Chapter 8), the results of a reading acuity test and a specific reading task, the student will

- Select a device and magnification that will enable achievement of reading goal using visual or non-visual strategies.
- Identify and correct a problem a client might have using a device.
- Enable a client to achieve a writing goal using visual and non-visual strategies.

Chapter 16 Basic Self Care with Low Vision

(Intermediate level 2 hrs., 0.2 AOTA AND ACVREP CEU)

The student will...

- Select a technique that will enable achievement of effective personal hygiene and grooming.
- Identify a technique or product to facilitate independence in identifying and matching clothing.
- Describe a method that will enable a client to return to eating neatly and without spillage.

Chapter 17

Home Management with Low Vision

(Intermediate level 2 hrs., 0.2 AOTA AND ACVREP CEU)

The student will...

- Identify reasons for referral to a Certified Vision Rehabilitation Therapist.
- Identify techniques or products to facilitate independence and accuracy in telephone use.
- Select a method or adaptive product that will lead to achievement of safety and independence in meal preparation.
- Describe an effective adaptive cleaning strategy.

Chapter 18

Leisure, Recreation and Sports with Low Vision

(Intermediate level 2 hrs., 0.2 AOTA AND ACVREP CEU)

The student will...

- State a feature of an adapted game for use by someone with vision loss.
- Describe an optical or non-optical technique that will allow a client to successfully resume watching television.
- Identify an adaptation that will promote a client's return to a desired recreation or sport activity.

Chapter 19

Community Activities and Mobility with Low Vision

(Intermediate level 2 hrs., 0.2 AOTA AND ACVREP CEU)

The student will

- Select a mobility intervention that is within the scope of practice of an occupational therapist.
- Identify a reason for referral to a Certified Orientation and Mobility Specialist.
- State a technique, product or resource that can enable a client to return to driving.

Chapter 20-A

Managing Diabetes and Medications with Low Vision

(Intermediate level 2 hrs., 0.2 AOTA AND ACVREP CEU)

The student will ...

- Identify a reason for referral to a Certified Diabetes Educator who is a nurse or dietitian.
- Identify a reason for referral to a Dietitian with expertise in diabetes.
- Describe the AADE7 Self-Care behaviors and sample behaviors associated with each.
- Describe hypoglycemia, symptoms associated with it, and products that can be used to treat it.

Chapter 20-B

Managing Diabetes and Medications with Low Vision

(Intermediate level 2 hrs., 0.2 AOTA AND ACVREP CEU)

The student will

- Identify some pertinent questions in a diabetes self-management assessment.
- Select a technique or product that can enhance an individuals' return to diabetes selfmanagement.
- Describe the role of optics in adaptive diabetes self-management program.
- Describe critical precautions a client should implement in their diabetes self-management program.

Chapter 21

Establishing a Low Vision Specialty Practice in the USA

(advanced level 2 hrs., 0.2 AOTA AND ACVREP CEU)

• Describe CMS requirements for documentation by an Occupational Therapist for evaluation and treatment of clients with low vision.

- Describe agencies and professionals with whom a low vision therapist may coordinate services.
- Given a clinical scenario, describe other professionals who should be involved in coordinated care.

Limited Guarantee

For courses paid for by individuals.

The student may request a refund for any of these courses for any dissatisfaction with the course. The full cost will be refunded upon receipt of written notice and a short explanation.

This guarantee is limited to 30 days from the time of course registration. If a student completes and submits an examination the guarantee expires and no refund is possible.

The student is required to send an email requesting a refund with a reason why the course was not completed. Any reason will be accepted; we will use this information to improve our programs.

ADA Compliance

The slides and video are currently fully described by the narrative. The examination should be fully accessible by screen readers.

^{*} Disclosure of potential conflict of interest: Stephen Whittaker may receive royalties from one assessment instrument (the wands and the Pepper Visual Skills for Reading Test). With all instruments that produce royalties to Dr. Whittaker, alternative available assessment techniques and instruments have been presented.