Introduction

Being able to reason with verbal and visual information is an integral part of how we communicate, problem solve, make decisions, and achieve success in relationships with others. The tasks in *WALC 9: Verbal and Visual Reasoning* address multiple levels of reasoning in a wide variety of exercises. This is to improve your client's ability to reason flexibly and to expand his ability to identify, analyze, and modify information. Having a large repertoire of verbal and visual reasoning abilities will help your client determine the effectiveness of his own responses plus analyze what is being said to him or presented to him in written or graphic form.

WALC 9 was written to provide stimulus materials for verbal and visual reasoning when working with clients who are neurologically impaired. The tasks in this book, developed while working with a wide variety of clients, have evolved and have been perfected over the years. The tasks will stimulate your client's ability to reason while tapping into many facets of cognitive-linguistic communication. He will use pre-existing skills (i.e., previously learned visual and verbal content and processes already established in a client's cognitive system) to help him link or associate information as a basis for solving the challenging, integrative tasks.

Verbal and visual reasoning tasks are the main focus of this book, however many processes are addressed in each task, including the following.

- **Thought Organization**
  Most of the tasks in this book involve organization of thought (e.g., strategies that require your client to determine a relationship or process and carry that pattern over to successfully complete similar tasks). Being able to think in a logical, organized manner will improve your client's ability to reason.

- **Convergent Reasoning**
  Being able to think convergently will help your client stay on topic as he zeroes in on a response using information given (e.g., answering logic questions).

- **Logic**
  When a person has difficulty with reasoning, his line of logical thinking can become tangential and/or completely unrelated. The tasks in this book are designed to present information in a logical manner in such a way as to stimulate logical thought for solving the tasks correctly. The patterns will become established in your client's cognitive abilities and the process will transfer to problem solving for various situations and activities in daily life.

- **Insight**
  Being able to determine if your actions or responses are appropriate is a skill that is necessary for successful reasoning. The tasks in this book are designed to give your client insight into why a response may be wrong and to use that insight to try again and/or to understand the correct answer. Your client's insight will improve when he successfully completes a task or when he analyzes an answer's correctness by comparing it to the responses in the answer key.

- **Integration**
  Every person has a preexisting knowledge base and reasoning style. As we go through each day, it is important to perceive new information and to integrate salient information into our patterns of thinking. Frequently someone who has a neurological impairment will be very reluctant to integrate new information. The tasks in this book are designed to stimulate the need for integration of new information in order to be successful in answering questions or solving tasks.

- **Inferencing**
  Many of the tasks in this book involve the skill of being able to make an inference. Effective reasoning can only occur if your client is able to read between the lines when listening to verbal information or to make the correct judgment when interpreting visual information.

- **Visual Perception**
  For your client's reasoning abilities to be effective, it is important that he visually perceives information in the correct manner. If something is perceived incorrectly, then problem solving, deduction, and reasoning will be negatively affected. The tasks in this book provide various levels of visual stimuli (e.g., shapes, figures, pictures) to improve your client's ability to see visual stimuli correctly and to make the correct interpretation of the material.

Verbal and visual reasoning skills can be compromised if your client has poor conversation skills. It is important that a person is able to receive all necessary input and to share what he feels he is having difficulty with. The tasks in the conversation skills section of the book insure that your client is receiving information accurately, utilizing nonverbal information to aid reasoning, balancing speaker/listener skills, answering questions effectively, and verbally expressing himself in an effective manner.

Many of the tasks in this book involve working with words, so as your client progresses through the book, his vocabulary will improve. A broad vocabulary can assist with reasoning skills.

Suggestions for Use

1. Initially, the majority of these exercises will be difficult. Keep in mind that you're aiding the client in developing different thinking processes as opposed to striving for 100% accuracy. It's strongly suggested that you familiarize yourself with each exercise so you can help the client throughout the training period before expecting the client to complete the exercise independently. Be prepared to give cues or even the answers to stimulate the client's learning abilities.

2. Reassure your client that it's not as important for him to answer each item as it is for him to be able to utilize strategies for solving the items within a task.

3. Determine the appropriateness of responses based on the client's current level of cognitive functioning. Consider shaping approximations over successive trials or sessions. Emphasize enjoyment in the challenge rather than accuracy.

4. These exercises can be used in individual or group situations. In group situations, clients can work together to solve the problems or take turns providing answers, thus giving each other valuable feedback. Encourage the client to work with his family on the exercises.

5. The exercises may be used for stimulus of intentional memory strategies. When it's necessary for you to provide an answer, explain to the client that you'll be asking him to later recall the answer and to intentionally code the answer. If necessary, aid the client's coding by providing him with auditory or visual strategies he may use, depending on his strongest method for coding input.

6. These exercises can also be used to stimulate incidental memory strategies. At the end of a task, ask the client to recall methods he used, the format of the task, or salient content that was provided. If you do this consistently, the client will begin to anticipate what you may ask for, thus indirectly providing practice with the automatic use of memory strategies.

7. As the client learns the strategies or processes necessary for solving the tasks, the level of difficulty can be increased by asking the client to create similar items for you to solve. This gives him the chance to create and be flexible. This experience can be challenging and enjoyable for both you and your client. The client will learn much from this creative process.

8. The exercises are not for testing purposes. Try to make them as enjoyable as possible. Talking about specific task items will help your client improve his ability to identify, create, and modify strategies.

9. The answers in the Answer Key are provided as a reference. There are times when items have multiple answers even if only one is listed. Accept other, appropriate answers as correct.

WALC 9 provides a wide variety of thinking and reasoning stimulus materials. Share *WALC 9* with the client's family to establish the importance of improving communication outside of the therapy setting. As you use these exercises, it's my hope that you'll discover the unending uses for and versatility of these tasks.

May you enjoy the adventure of working with language and cognitive communication skills as much as I do.

Kathy