LANGUAGE DISORDERS

A Functional Approach to Assessment and Intervention

SIXTH EDITION

ROBERT E. OWENS, JR.

Sixth Edition

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Preface

The sixth edition of *Language Disorders: A Functional Approach to Assessment and Intervention* represents an exhaustive compilation of studies conducted by my professional colleagues and of several years of my own clinical work in speech-language pathology with both presymbolic and symbolic children and adults. In this book, I concentrate on children because of the special problems they exhibit in learning language. Adults who are acquiring language, or who have lost language and are attempting to regain it, represent a diverse group that would be difficult to address also in this text.

I call the model of assessment and intervention presented in this text *functional language*. This approach goes by other names, such as environmental or conversational, and includes elements of several other models. Where I have borrowed someone's model, ideas, or techniques, full credit is given to that person. I find assessment and intervention to be an adaptation of a little of this and a little of that within an overall theoretical framework. Readers should approach this text with this in mind. Some ideas presented are very practical and easy to implement, whereas others may not apply to particular intervention settings. Readers should use what they can, keeping in mind the overall model of using the natural environment and natural conversations as the context for training language. I am the first to acknowledge that I do not have a monopoly on assessment and intervention methods, nor do I pretend to have all of the answers.

Within *Language Disorders* I have made some content decisions that should be explained. I group all children with language problems, both delays and disorders, under the general rubric of *language-impaired*. This expedient decision was made recognizing that this text would not be addressing specific disorder populations except in a tangential manner.

Hopefully, you'll be pleased with the sixth edition. Professors who've used the text before will notice some new additions and changes in emphasis. These are based on professional feedback, reviewers' comments, student input, and the changing nature of speech and language services. Here is a partial list of updates and modifications.

- The text is thoroughly updated with the addition of several hundred new sources. This is the result of nearly as many hours of reading or perusing journal articles. In all honesty, I also looked at five other texts on this topic to see how the authors organized and explained language impairment.
- I've added a new chapter on early communication intervention as some reviewers suggested. This is a topic near and dear to my heart, and the model espoused by both the U.S. government and the American Speech-Language-Hearing Association is a functional one.
- I've included a large section on augmentative and alternative communication (AAC). Although strictly speaking, AAC is a mode of communication and not language intervention per se, many of the issues that must be addressed relate to language, and for some children learning language and communication without AAC may be almost impossible.
- New developments, such as inclusion and Response to Intervention or RTI have been added to the classroom intervention chapter in recognition of the effect these are having on what happens in the public schools.
- Since the last edition, the information on Specific Language Impairment and working memory has exploded, so readers will find this section greatly expanded over the previous edition.

- The number of children diagnosed with some variant of autism spectrum disorder (ASD) has continued to explode. I have attempted to expand discussion of this topic and new incidence figures and descriptive criteria.
- Luckily, the number of meta-analyses focusing on the best evidence-based practices has greatly increased since the last edition, although as a profession, speech-language pathologists (SLPs), especially those concerned with language intervention, still lag behind some other medical or medical-related professions. Wherever I have been able to find these professional articles, I have incorporated their results, even when they don't conform to what I might believe. That's how we learn and stay current, isn't it?
- The chapters on language analysis have been strengthened and consolidated into one and the discussion tightened to add more cohesion. In the past, these chapters tended to ramble on about the possibilities for analysis at the expense of the more important how-to.
- As in previous editions, I have included all the relevant information on children from culturally and linguistic diverse backgrounds. I'm in love with the increasingly diverse nature of U.S. society and believe it's essential that we serve those children who need our services to the best of our ability.

No doubt I've forgotten some of the changes. I hope you are pleased with the results.

I hope that you will find this text useful. Those who use the methods found within these pages tell me that they and their clients find them to be useful, effective, adaptable, and fun. Time will tell if you agree.

Acknowledgments

About the Author

Robert E. Owens, Jr. Ph.D. ("Dr. Bob") is an Associate Professor of Communication Sciences and Disorders at the College of St. Rose in Albany, NY, and a New York State Distinguished Teaching Professor. He teaches courses in language development and language disorders and is the author of

- *Language Development, An Introduction* (8 editions)
- *Language Disorders, A Functional Approach* (6 editions)
- *Program for the Acquisition of Language with the Severely Impaired (PALS)*
- *Help Your Baby Talk, Introducing the New Shared Communication Method*
- *Queer Kids, The Challenge and Promise for Lesbian, Gay and Bisexual Youth*

His *Language Development* text is the most widely used in the world and has been translated into Spanish, Korean, Arabic, and Mandarin. He has also co-authored *Introduction to Communication Disorders, A Life Span Perspective* (4 editions), written a score of book chapters and professional articles, and authored two as-yet unpublished novels that are sure to win a posthumous Pulitzer prize. Currently, he is authoring a text on early intervention. In love with the sound of his own voice, Dr. Bob has presented over 180 professional papers and workshops around the globe. His professional interests are language disorders in infants, toddlers, and preschoolers, who are also some of his best friends. And he's a gran'pa!

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A Functional Language Approach

At the risk of sounding like I think I'm something special, which I don't and I'm not, let me begin with two vignettes. A few years ago, I gave a presentation in Buffalo, New York, on a topic other than speech-language pathology and was pleased to see a former student sitting in the rear. Afterward, when I approached her and expressed my surprise at seeing her in attendance, she told me she was there not because of the topic but because she wanted to tell me how much she appreciated the functional intervention methodology I had shared with her in class several years earlier. At the time, according to her, she thought I was describing a standard method of providing intervention and was not aware until she graduated just how different functional intervention is from typical intervention as practiced by her peers. She related to me that, years after graduating, she is still being questioned by colleagues who wondered how she learned to make therapy look so natural and to engage children so well while genuinely seeming to enjoy herself. I can't take credit for that. All I did was provide information. She is a bright, creative speech-language pathologist who was able to implement what she had learned.

After another workshop in Connecticut, an older speech-language pathologist approached me to tell me she used many functional methods she had read in this book and found them to be very effective. Somewhat humbled, I thanked her, but as I moved on, she took my arm firmly and said, "You don't understand. I get it. I get it." As I turned back to her, she explained that functional intervention is not the same as using someone's published language intervention program, it's a philosophy of intervention that influences everything she does with children and adults with language impairment.

Both women get it. In this book, we are going to explore that "it," a functional philosophy of language intervention. I want you to get "it" too. There are many pieces to this model, but luckily, an inability to use some portions, such as working with parents, does not preclude using others, such as teaching through conversation. Nor does use of functional methods negate the need for more traditional methods with some clients and at some times during intervention. But with a functional approach firmly in your mind, you never lose sight of the goal. You never lose sight of intervention based on actual use of the newly trained skill to improve communication. All your clinical decisions should move your clients in that direction.

I've been an SLP and college professor for thirty-five years, but I began my career just as you are, sitting in classes, taking notes, reading texts, and eager but fearful of my first clinical experience. This book is my attempt to give you as much information about language impairment as possible in the shortest space possible. The text is thick and filled with information because this topic is complicated. We'll discuss groups of children as we move through our discussion, children with intellectual disability and others with autism spectrum disorder. Even after we have spent all these words in discussing the topic, we will have only skimmed the surface. You will spend your professional career continually updating your knowledge. And yet, each new child with a language impairment that you meet will challenge your knowledge, your skill, and your creativity. It's what makes the field of language impairment so challenging and rewarding.

So let's proceed together. If you have concerns as we go, if I've made a mistake or confused you, or if I've been insensitive about a topic at some point, please let me know. I value your input.

Throughout this book, to the best of my ability, I have used evidence-based practice (EBP) as the basis for this text. I have attempted to research each topic, weigh the data, and make informed decisions prior to passing the knowledge on to you. If you are unfamiliar with EBP, I'll explain it at the end of the chapter. For now, let's begin with the basic concepts of **language impairment** and **functional language intervention**.

Language is a vehicle for communication and is primarily used in conversations. As such, language is the social tool that we use to accomplish our goals when we communicate. In other words, language can be viewed as a dynamic process. If we take this view, it changes our approach to language intervention. We become interested in the *how* more than in the *what*. It is that aspect of language intervention that I wish for us to explore through this book.

The American Speech-Language-Hearing Association, the professional organization for speech-language pathologists and audiologists, defines *language disorder* as follows:

A LANGUAGE DISORDER is impaired comprehension and/or use of spoken, written and/or other symbol systems. This disorder may involve (1) the form of language (phonology, morphology, syntax), (2) the content of language (semantics), and/or (3) the function of language in communication (pragmatics) in any combination. (Ad Hoc Committee on Service Delivery in the Schools, 1993, p. 40)

For our purposes, we shall consider the term *language disorder*, which I'll call *language impairment, to apply to a heterogeneous group of developmental disorders, acquired disorders, delays, or any combination of these principally characterized by deficits and/or immaturities in the use of spoken and/ or written language for comprehension and/or production purposes that may involve the form, content, or function of language in any combination.* Language impairment may persist across the lifetime of the individual and may vary in symptoms, manifestations, effects, and severity over time and as a consequence of context, content, and learning task. Language differences, found in some individuals who are English Language Learners (ELLs) and those using different dialects, do not in themselves constitute language impairments.

In attempting to clarify the definition of language impairment, we have, no doubt, raised more questions than we have answered. For example, causal factors, such as prematurity, although important, are omitted from the definition because of their diverse nature and the lack of clear causal links in many children with language impairment (LI). In general, causal categories are not directly related to many language behaviors. Likewise, diagnostic categories, such as traumatic brain injury, are not included in my definition for many of the same reasons. The definition also states that language differences are not disorders, even though the general public and some professionals often confuse the two. We'll explore all of these issues in Chapter 2 and the chapters that follow. For now, relax a little and let's discuss functional language intervention.

The professional with primary responsibility for habilitation or rehabilitation of LI is the speech-language pathologist (SLP). The wearer of many hats, the SLP serves as team member, team teacher, teacher and parent trainer, and language facilitator.

These many roles reflect a growing recognition that viewing the child and his or her communication as the sole problem is an outmoded concept, and increasingly, language intervention is becoming family centered or environmentally based, such as in a classroom. Professional concern is shifting from training targets such as individual morphological endings or vocabulary words to a more functional, holistic approach focusing on the child's overall communication effectiveness.

Traditional and Functional Models

A functional language approach to assessment and intervention, as described in this text, targets language used as a vehicle for communication. It's a communication-first approach. The focus is the overall communication of the child with language impairment and of those who communicate with the child. As stated, the goal is better communication that works in the child's natural communicative contexts.

In a functional language approach, conversation between children and their communication partners becomes the *vehicle* for change. By manipulating the linguistic and nonlinguistic contexts within which a child's utterances occur, the partner facilitates the use of certain structures and provides evaluative feedback while maintaining the conversational flow. That last sentence is worth rereading. From the early data collection stages through the intervention process, the SLP and other communication partners are concerned with the enhancement of the child's overall communication.

Functional language approaches have been used in clinical research to increase mean length of utterance and multiword utterance production; the overall quantity of spontaneous communication; pragmatic skills; vocabulary growth; language complexity; receptive labeling; and intelligibility and the use of trained forms in novel utterances in children with intellectual disability, autism spectrum disorder, specific language impairment, language learning disability, developmental delay, emotional and behavioral disorders, and multiple handicaps. Even minimally symbolic children who require a more structured approach benefit from a conversational milieu. In addition, functional interactive approaches improve generalization even when the immediate results differ little from those of more direct instructional methods. Finally, a conversational approach yields more positive behaviors from the child, such as smiling, laughing, and engagement in activities, with significantly more verbal initiation, than does a strictly imitation approach. In contrast, the child learning through an imitation approach is more likely to be quiet and passive.

In the past, the traditional approach to teaching language has been a highly structured, behavioral one emphasizing the teaching of specific language features within a stimulus-response-reinforcement model. Thus, language is not seen as a process but a product or response elicited by a stimulus or produced in anticipation of reinforcement.

Stimulus-response-reinforcement models of intervention have often taken the form of questions by an SLP and answers by a child or directives by an SLP for a child to respond. Typical stimulus utterances by an SLP might include the following:

Which one sounds better . . . or. . . . ?
Did I say that correctly?
Tell me the whole thing.
Say that three times correctly.

In a more traditional model of intervention, the SLP's responses are based on the correctness of production and might include *Good, Good talking, Repeat it again three times, Listen to me again*, and so on. Table 1.1 offers a simplified comparison of the traditional and functional models.

TABLE 1.1   Comparison of Traditional and Functional Intervention Models

Traditional Model	Functional Model
Individual or small group	Individual, small group, large group, or an entire class
Clinical situation	Actual communication situation
Isolated language targets	Relationship of linguistic units stressed as target is used in conversation
Begin with small units of language and build up to conversation	Target conversation as "fixing" the child's language as needed with minimal prompts
Stress on modeling, imitation, practice, and drill	Conversational techniques stressing successful communication
Use in conversations stressed in final stages of intervention	Use is optimized as a vehicle for intervention
Child's behavior and language constrained by adult	Increased opportunity to use the new language feature in a wide variety of contexts
Little real conversation and use	Premised on real conversation and use
Little involvement of significant others	Parents and teachers used as agents of change

Many SLPs prefer a traditional structured approach because they can predict accurately the response of the child with LI to the training stimuli. In addition, structured behavioral approaches increase the probability that the child will make the appropriate, desired response. Language lessons usually are scripted as drills and, therefore, are repetitive and predictable for the SLP.

In a structured behavioral approach the child can become a passive learner as the SLP manipulates stimuli in order to elicit responses and dispense reinforcement. The SLP's overall style is highly directive. In other words, the clinical procedure is unidirectional and trainer-oriented. Unfortunately, used alone, these approaches are inadequate for developing meaningful uses for the newly acquired language feature.

Although structured behavioral approaches that exhibit intensity, consistency, and organization have been successful in teaching some language skills, they exhibit a major problem — generalization of that learning from clinical to more natural contexts. As such, failure of language-training targets to generalize to other uses is one of the major criticisms of intervention with children with autism spectrum disorders.

Lack of generalization can be a function of several factors, including the material selected for training, the learning characteristics of a child, or the design of the training. Stimuli present in the clinical setting that directly or indirectly affect learning may not be found in other settings. Some of these stimuli, such as training cues, have intended effects, whereas others, such as an SLP's presence, may have quite unintended ones. In addition, clinical cues and consequences used for teaching, such as reinforcement, may be very different from those encountered in everyday situations, thus removing the motivation to use the behavior elsewhere.

In contrast, functional approaches give more control to a child and decrease the amount of structure in intervention activities. Measures of improvement are increased successful communication, not just the number of correct responses. Procedures used by an SLP and a child's communication partners more closely resemble those in the language-learning environment of children. In addition, the everyday environment of a child with LI is included in the training.

Naturally, the effectiveness of any language-teaching strategy will vary with the characteristics of the child with LI and the content of training. For example, children with learning disabilities may benefit more from specific language training than do other children with language impairment. Likewise, children with more severe LI initially benefit more from a structured imitative approach.

In this chapter, we'll further define a functional language approach and explore a rationale for it. This rationale is based on the primacy of pragmatics in language and language intervention and on the generalization of language intervention to everyday contexts. Generalization is discussed in terms of the variables that influence it.

Role of Pragmatics in Intervention

As you'll recall, *pragmatics* consists of the intentions or communication goals of each speaker and of the linguistic adjustments made by each speaker for the listener in order to accomplish these goals. Most features of language are affected by pragmatic aspects of the conversational context. For example, a speaker's selection of pronouns involves more than syntactic and semantic considerations. The conversational partners must be aware of the preceding linguistic information and of each other's point of reference.

In an earlier era, interest by SLPs in psycholinguistics led to a therapeutic emphasis on increasing syntactic complexity. With a therapeutic shift in interest to semantics or meaning in the early 1970s came a new recognition of the importance of cognitive or intellectual readiness but little understanding of the importance of the social environment. The influence of sociolinguistics and pragmatics in the late 1970s and 1980s has led to interest in conversational rules and contextual factors. Everyday contexts have provided a backdrop for linguistic performance.

Among those working with special populations, the focus has been shifting to the communication process itself. Previously, for example, children's behaviors were considered either appropriate

or inappropriate to the stimulus-reinforcement situation. Echolalia and unusual language patterns considered inappropriate were extinguished or punished. When emphasis shifts to pragmatics and to the processes that underlie behavior, however, the child's language, even echolalia, can be considered on its own terms. For example, does it serve a purpose for the child?

Older approaches have tended to emphasize childrens' deficits with the goal of fixing what's wrong. In contrast, a functional approach stresses what a child needs in order to accomplish his or her communication goals. It follows that intervention should provide contexts for actively engaging children in communication. In shifting the focus from the disorder to supporting a child's communication, the goal becomes increasing support and opportunities for the child to participate in everyday communication situations.

Increasingly, SLPs are recognizing that the structure and content of language are heavily influenced by the conversational constraints of the communication context. This view of language necessitates a very different approach to language intervention. In effect, intervention has moved from an *entity approach*, which targets discrete isolated bits of language, to a *systems or holistic approach*, which targets language within the overall communication process. The major implication is a change in both the targets and the methods of training. If pragmatics is just one of five equal aspects of language, as seen in Figure 1.1, then it offers yet another set of rules to train and the methodology need not change. The training still can emphasize the what with little change in the how, which can continue in a structured behavioral paradigm.

In contrast, an approach in which pragmatics is seen as the overall organizing aspect of language, also seen in Figure 1.1, necessitates a more interactive conversational training approach, one that mirrors the environment in which the language will be used. Therapy becomes bidirectional and child oriented, and conversation is viewed as both the teaching *and* transfer environment.

Dimensions of Communication Context

Language is purposeful and takes place within a dynamic context that affects form and content and may, in turn, be affected by them. *Context* consists of a complex interaction of many factors:

Purpose. Language users begin with a purpose that affects what to say and how to say it. Here's pragmatics again.
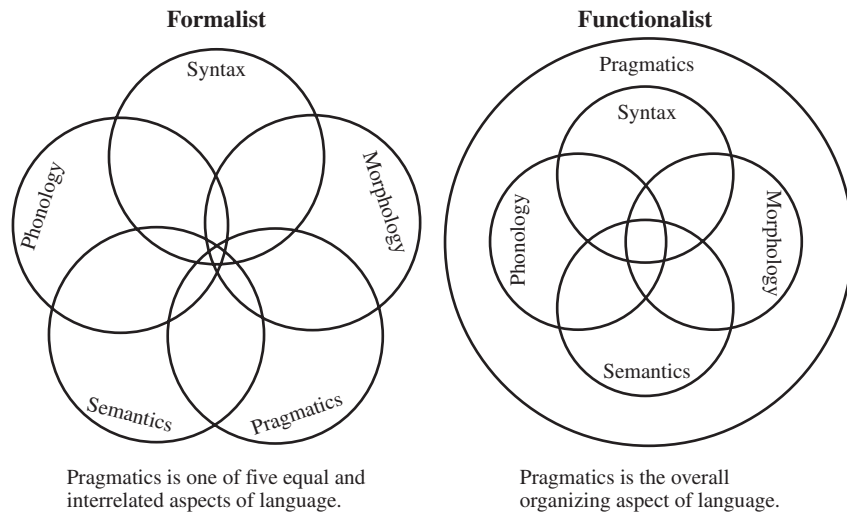

FIGURE 1.1 Relationship of the aspects of language.

Content. Language users communicate about something. This topic affects the form and the style.

Type of discourse. Certain types of discourse, such as a debate or a speech, use a characteristic type of structure related to the purpose.

Participant characteristics. Participant characteristics that affect context are background knowledge, roles, life experiences, moods, willingness to take risks, relative age, status, familiarity, and relationship in time and space. Each participant also belongs to a speech community, which is that group with whom he or she shares certain rules of language.

Setting and Activity. Setting and the activity includes the circumstances in which language users find themselves, which, in turn, affects language, especially the choice of vocabulary.

Mode of discourse. Speech, sign, and written modes require very different types of interaction from the participants.

Within a conversation, participants continually must assess these factors and their changing relationships. Now, it should be easy to see why the pragmatic context is essential to effective intervention.

An SLP must be a master of the conversational context. Unfortunately, it is too easy to rely on overworked verbal cues, such as "Tell me about this picture" or "What do you want?" to elicit certain language structures. As simple a behavior as waiting can be an effective intervention tool when appropriate. Similarly, a seemingly nonclinical utterance, such as "Boy, that's a beautiful red sweater," can easily elicit negative constructions when directed at a child's green socks. If an SLP knows the dimensions of communication context and understands the dimensions, he or she can manipulate them more efficiently.

Summary

In the clinical setting, SLPs need to be aware of the effects of context on communication. How well children with LI regulate their relationships with other people depends on their ability to monitor aspects of the context. Given the dynamic nature of conversational contexts, it is essential that intervention also address generalization to the child's everyday communication contexts.

Role of Generalization in Intervention

One of the most difficult aspects of therapeutic intervention in speech-language pathology is generalization, or carryover, to nontraining situations. Time and again, we SLPs bemoan the fact that although Johnny performed correctly during intervention, he could not transfer this performance to the playground, classroom, or home. When language features taught in one setting are not generalized to other content and contexts, the child's goal of communicative competence is not realized.

For our purposes, let's consider *generalization* to be the ongoing interactive process of clients and their newly acquired language feature with the communication environment (Figure 1.2). For example, if we are trying to teach a child the new word *doggie*, we might repeat the word several times in the presence of the family dog and then cue the child with "Say doggie." If the child repeats the word only in this situation, she has not learned to use the word. If she says the word spontaneously and in the presence of other dogs, however, then we can reasonably assume that the child has learned the word and its use. In other words, the trained content has generalized.

The factors that affect generalization lie within the training content, the learner, and the teaching context but will vary as particular aspects of the teaching situation change. If a response is to occur in a nontraining situation, such as a classroom, then some aspects of that situation should be present in the training situation to signal that the response should occur. In other words, an SLP must consider the effects of the various teaching contexts on generalization to everyday contexts.
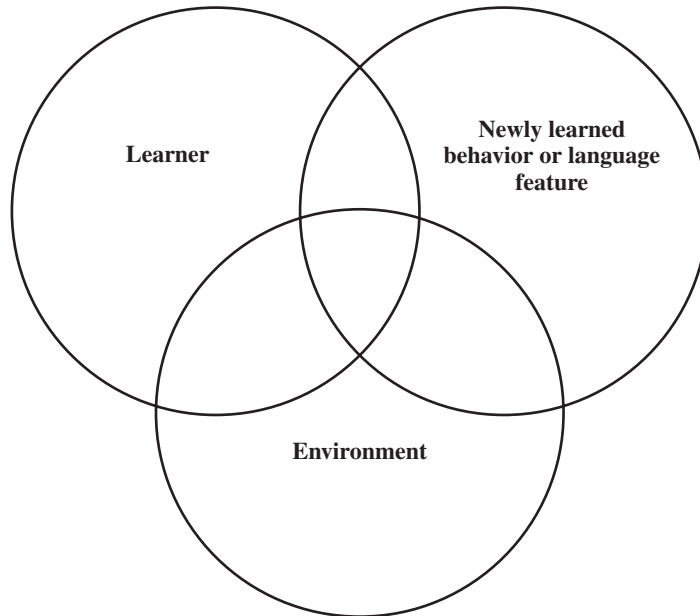
Generalization is the interaction of the individual, the newly trained behavior or
language feature, and the environment. All three must be present for
generalization to occur.

FIGURE 1.2   Generalization schematic.

Language training may not generalize because it is taught out of context, represents neither a child's communicative functions nor linguistic knowledge or experiences, or presents few communicative opportunities. To some extent, generalization is also a result of the procedures used and of the variables manipulated in language training. Finally, the very targets chosen for remediation may contribute to a lack of carryover.

With each client, an SLP needs to ask: Will this procedure (or target) work in the child's everyday environment? Is there a need within the everyday communication of the client for the feature that is being trained, and do the methods used in its teaching reflect that everyday context? In a recent meeting with a student SLP, the answer to these questions was no. As a result, we decided to forgo auxiliary verb training with a middle-aged adult with intellectual disability in favor of communication features more likely to be used within the client's everyday communication environment, such as ordering at a fast-food restaurant, asking directions, and using the telephone. In other words, we opted for a more functional approach that targeted useful skills in the everyday environment of the client.

Variables That Affect Generalization

Generalization is an essential part of learning. Even the young child using his or her first word must learn to generalize its use to novel content. At first the word *doggie* may be used with other four-legged animals. From feedback—"No, honey, that's a kitty"— the child abstracts those cases in which the word *doggie* is correct and those in which it is not. The child is learning those contexts that obligate the use of *doggie* and those that preclude its use. In other words, the child learns which contexts regulate application of language rules.

Likewise, a young child who can say, "May I have a cookie, please?" has not learned this new utterance until it is used in the appropriate contexts. A child learns the appropriate contextual cues, such as the presence of cookies, that govern use of the utterance.

The contexts in which training takes place influence what a child actually learns. In fact, correctness is not inherent in a child's response itself but is found in the response in context. Saying "May I have a cookie, please?" when none are available is inappropriate. The relationship of context to learning is not a simple one, and the stimuli controlling a response may be multiple.

In a similar way generalization is an integral part of the language intervention process. Thoughts on generalization should not be left until after intervention has occurred. Generalization is not a single-line entry at the end of the lesson plan, nor is it homework.

To facilitate the acquisition of truly functional language—language that works for the child—it is essential that SLPs manipulate the variables related to generalization throughout the therapeutic process. In a functional model, generalization is an essential element at every step. Table 1.2 includes a list of the major generalization variables.

Generalization variables are of two broad types: *content generalization* and *context generalization*. Content is the *what* of training. Content generalization occurs when the child with LI induces a language rule from examples and from actual use. Thus, the new feature (e.g., plural -s) may be used with content not previously trained, such as words not used in the therapy situation. Content generalization is affected by the targets chosen for training, such as the use of negatives, and by the specific choice of *training items*, such as the words and sentences used to train negation.

Overall, the content selected for training reflects an SLP's theoretical concept of language and of strategies for learning and the communication needs of a child. When grammatical units are targeted, different uses or functions for those units are essential if we are to meet a child's communication needs.

If content is the *what*, context is the *how* of training. Context generalization occurs when the client uses the new feature, such as the use of auxiliary verbs in questions, within everyday communication, such as in the classroom, at home, or in play. In each of these contexts there are differences in persons present and in the location, as well as in the linguistic events that precede and follow the newly learned behavior. Generalization can be facilitated when the communication contexts of the training environment and of the natural environment are similar in some way.

Let's briefly look at each variable. We'll come back to them later when we begin to design an intervention approach in Chapter 9.

Training Targets

The very complexity of language makes it impossible for an SLP to teach everything that a child with LI needs to become a competent communicator. Obviously, some language features must be ignored. Target selection, therefore, is a conscious process with far-reaching implications.

Training target selection should be based on the actual needs and interests of each child within his or her communication environments. The focus of instruction should be on increasing the effectiveness of child-initiated communication. Because language is a dynamic process that is influenced heavily by context, language features selected for training should be functional or useful for the child in her or his communication environment.

TABLE 1.2 Variables That Affect Generalization of Language Training

Content generalization	Training targets
	Training items
Context generalization	Method of training
	Language facilitators
	Training cues
	Consequences
	Location of training