

## The Role of Speech-Language Pathologists in Developing Language Rich Classrooms

*Curt Dudley-Marling, Associate Professor*  
Programme in Language and Learning Problems  
York University

*Christine Dudley-Marling*  
Speech-Language Pathologist  
Hugh MacMillan Medical Centre

*Linda Booty*  
Speech-Language Pathologist  
Hanan Parent Language Programme

Recent literature in speech and language emphasizes the importance of developing communicatively rich language-learning environments for language-disordered children (Craig, 1983; Lindfors, 1980; MacDonald, 1982; McLean & Snyder-McLean, 1978; Snow, Midkiff-Borunda, Small, and Proctor, 1984; Spekman & Roth, 1984). Effective language learning environments accept and build on children's utterances (Snow et al., 1984) within a variety of conversational settings. Traditional speech-language therapy, with its predominantly clinical focus, provides an artificial and restricted setting for language learning which severely limits the language-impaired child's opportunities to learn how language operates in a range of conversational settings. It is also uncertain whether what is taught in clinical settings will generalize to natural environments (Spradlin & Siegel, 1982). However, speech-language pathologists have ready access to natural conversational settings, if they are willing to expand their roles to include working with children within the classroom and actively collaborating on language intervention with classroom teachers (Ripich & Spinelli, 1985; Snow et al., 1984).

Classrooms are potentially rich language-learning environments where communication skills can be embedded in purposeful activity (Abkarian, 1981). Classrooms offer a range of audiences and settings, and language may be used for a variety of purposes. Importantly, language rich classrooms can support the goals of therapy throughout the day. Snow et al. (1984) state, "The child will engage in meaningful communication throughout his or her daily activities, and the active use of facilitative features in the language exchanges will increase the child's communicative competence" (p. 83). Unfortunately, a considerable body of literature indicates that this potential is unrealized in many classrooms.

Teacher talk dominates in most classrooms (Barnes, 1976; Bayer, 1984; Dillon & Searle, 1981; Edwards & Furlong, 1978). Much of this talk consists of teacher initiated talk (Dillon & Searle, 1981; Siegel, n.d.) which follows a relatively stable basic pattern: the teacher elicits language, establishing control over the topic and the speaker; the student responds; and, the

teacher evaluates the student's response (Bayer, 1984; Dillon & Searle, 1981; Edwards & Furlong, 1978; Gonzales & Hansen-Krening, 1981). This pattern of interaction tends to restrict both the quantity and quality of students' language and the almost certain prospect of evaluation discourages many students from responding at all. Students also have relatively little time to formulate a response to teachers' elicitations. The "wait-time" between students' responses (or non-response) to teachers' elicitations and teacher evaluation is very brief, averaging less than one second (Honea, 1982; Lehr, 1984).

Additionally, teachers' elicitations, usually questions (Gonzales & Hansen-Krening, 1981), are typically very narrow (Edwards & Furlong, 1978), thus discouraging lengthy responses from students. In general, teachers ask questions to which they already know the answers (Edwards & Furlong, 1978). This interaction pattern also restricts the purposes for which students use language. Students use language predominantly to demonstrate knowledge for purposes of evaluation (Dillon & Searle, 1981). The use of language for sophisticated functions such as problem-solving or prediction is relatively infrequent (e.g., Dillon & Searle, 1981).

The situation may be worse for low achievers, a group especially likely to exhibit language problems (see, for example, Wiig & Semel, 1980). Teachers have been found to ignore more often the comments of low achievers (Cherry, 1980), to provide them with fewer opportunities to respond to questions (Rist, 1970), and to wait less time for low achievers to answer questions (Good, 1980). Teachers also may discourage verbal responses from low achieving students by criticizing their public responses more often than those of higher achievers (Good, 1980). Little is known about the language-learning environments in special education classrooms but, because of the strong emphasis on individualization, lengthy conversational interactions may be rare in many special education classrooms (Dudley-Marling & Searle, in preparation). It appears that many language-disordered students may have relatively few opportunities to initiate and use language in their classrooms, experiences which promote conversational competence (Cherry, 1980).

Of course, the language in most classrooms will not be limited to these narrow patterns of verbal interaction. However, when these patterns predominate, children's opportunities to use and hear the language used in a variety of conversational settings are severely limited (Edwards & Furlong, 1978; Wolvin, 1984). Language-disordered children are denied the linguistic input they need to develop their emerging communicative abilities as well as opportunities to practice what they have learned. This pattern also tends to discourage students from using language to reflect upon their own knowledge and personal experiences to help them make meaning of instruction (Barnes, 1976; Dyson & Genishi, 1983; Edwards & Furlong, 1978; Searle, 1975). The language of schooling may only prepare students for more schooling (Dillon & Searle, 1981).

## Encouraging Communication in the Classroom

Moving the focus of therapy into the classroom will provide speech-language pathologists with a number of useful opportunities. Working closely with classroom teachers, they can help teachers learn more about language development and language disorders to better cope with language-disordered students within their classrooms (Vetter, 1982). Pathologists can help teachers analyze discourse in their classrooms and make suggestions as to how classroom discourse can be modified to help children's language comprehension and production (Butler, 1984). For example, several authors recommend that teachers attempt to match their language to the language abilities of their language-disordered students (Berlin, Blank, & Rose, 1980; Fujiki & Brinton, 1984; Vetter, 1982). Speech-language pathologists can help teachers analyze how directions are given in the classroom. Vetter (1982) notes, for example, that direct requests cause language-disordered children less confusion than indirect requests.

Regular visits to classrooms will help speech-language pathologists assess the language demands of the classroom curriculum (see Ilott, 1983) and evaluate the communication abilities of students within the context of the classroom (Ripich & Spinelli, 1985; Vetter, 1982). Familiarity with classroom language also will help speech-language pathologists teach students the language of the classroom; that is, how meaning is made within specific classroom settings (e.g., Butler, 1984). The evidence indicates that classroom language is a communication register stylistically distinct from the language styles children bring to school (Edwards, 1976; Spinelli & Ripich, 1985). For example, children must revise their attention getting strategies, must wait longer for turns, and must develop schemata such as reading-time, snack-time, following-teacher-directions time, asking-questions-in-class time, and so on (Tattershall & Creaghead, 1985). Some students may have to learn to cope with more hints and indirect requests than they did at home (Heath, 1983; Wells, 1986). The language of instruction also includes subject registers, styles of using language that are associated with specific academic subjects such as history or geography (Edwards, 1976).

The teacher dominated pattern of student and teacher language summarized in the introduction to this paper has been severely criticized (e.g. Barnes, 1976; Wells, 1986) but, nevertheless, students who do not demonstrate an awareness of the "etiquette" of classroom language risk being devalued and having what they say ignored or misunderstood (Edwards, 1976). Failure to master these rules also may have academic consequences (Bloome & Knott, 1985). Therefore, in some cases the focus of language intervention will be on teaching students the discourse rules they need to fully participate in school activities (Ripich & Spinelli, 1985). Interested readers are referred to Ripich and Spinelli (1985) and Simon (1985a, 1985b) for a fuller discussion of this topic.

Although it is undoubtedly important for students to learn the language of the classroom, it is also important that a number of features of this language register be altered to increase children's opportunities to learn about language and to use language to support their learning. The remainder of this paper will focus on a discussion of how speech-language pathologists can help teachers create highly communicative contexts within classroom settings. A number of principles for creating language rich classrooms, drawn from a substantial body of research in language acquisition and classroom language, are presented below. In general, these principles can be used to help classroom teachers create environments which provide language-disordered children with the linguistic data they need to develop their communicative abilities and also provide students with opportunities to use their language to promote learning (Barnes, 1975; Heath, 1983; Wells, 1986).

### Principle 1: The Physical Setting and Classroom Organization

The traditional arrangement of straight rows facing the teachers works best in the elicitation—response—evaluation (E-R-E) model; that is, teachers doing most of the talking to a largely silent audience. Alternative groupings of desks, provision of larger tables around which students can work, regular seating in groups, and flexible use of space so that students can bring their chairs or desks together for short-term sharing, all encourage students to use language in their work.

The presence of interesting objects also can stimulate talk. For example, many classrooms contain activity centres, pet gerbils and fish, and so on. Teachers who regularly bring in objects or materials as a means of promoting talk find that students often do the same. Temporary classroom exhibitions of children's treasures, family photos or cultural displays, and so on, all provide the opportunity for students to share, to explain, to question, or to react (Dudley-Marling & Searle, in press).

Student groupings can affect the quality and quantity of classroom language. Many children are much more comfortable conversing in small groups which afford students more opportunities to initiate language. Varying group size, the relationships between children in the group, the distance be-

tween speakers and listeners, and the subject of the discussion will affect both the register (e.g., formal vs. informal) of talk and the purposes for which talk is used (Lange, 1981). Varying audiences within groupings, especially cross-age and cross-ability groupings, will provide children with the valuable opportunity to explain things (Adams, 1984) as well as provide language models (Staab, 1982) for language-impaired students. Small groups also encourage children to learn from each other. Effective student groups can be formed around a science project, a discussion of a current event, group story writing, and so on. The best language (and learning) may occur in groups without the presence of an adult (Jolly, 1980). Groups are often most effective if students have had lots of experience working together; that is, if small groups become a regular part of classroom routines. In general, small groups provide children opportunities to engage in a variety of communicative intentions revolving around a group activity. Children are provided with opportunities to learn conversational rules and to use language as a tool to complete their work.

### Principle 2: Using Language for a Variety of Purposes

Teachers should attempt to provide frequent opportunities for students to use language for a variety of purposes including: directing the child's own activity; self-maintaining (maintaining the rights and property of self); reporting on past and present experiences; logical reasoning; predicting and anticipating possibilities; projecting into the experiences of others; and building up an imaginative scene through talk (Tough, 1976).

Teachers may create opportunities for different language responses to occur (Spradlin & Siegel, 1982). Different types of activities, for example, may promote different uses of language. Construction activities may encourage forward planning and prediction (Staab, 1983; Tough, 1976). A reading or a science lesson may encourage predicting, and open-ended computer software programs like LOGO or computer simulations may encourage logical reasoning and predicting. Setting up a drama centre or a puppet play may encourage students to imagine or to project into non-classroom situations (Staab, 1983).

The nature of teacher elicitations and evaluation will affect the range of purposes for which students use language. Changing the nature of teacher elicitations to include, where appropriate, more open-ended, probing questions (e.g., how? and why? instead of what?) will encourage lengthier student responses and will affect the purposes for which students use language. Teachers should be encouraged to promote student initiated language. First, of course, teachers will have to be convinced of the value of student initiated talk.

Speech-language pathologists may give teachers specific advice on which language functions should be encouraged for particular children. They could help teachers evaluate their curricula in light of the language needs of particular students. Focusing upon the language needs of individual students may affect language opportunities for a whole class of children.

### Principle 3: Responding to Student Language

Teachers' responses to students' language will affect the length of student responses and the willingness of students to initiate communication in the future. The E-R-E interaction pattern, because of its emphasis on rapid responding and evaluation, discourages lengthy student responses as well as student initiations. Speech-language pathologists can affect the quality and quantity of student talk in the classroom by encouraging teachers to consider carefully the nature of their responses to student language, and to allow and respond to students' communicative initiations. Teachers can be encouraged to respond to student language by reflecting the meaning of what children say and attending less to the "correctness" of student responses (Fujiki & Brinton, 1984). For example, a teacher who responds to the student who says, "Boy, we learned a lot of neat stuff in science class today" by saying, "Really Tom, you shouldn't say 'neat stuff,'" will discourage further conversation. Conversely, the teacher who responds by saying, "You enjoyed science class today" invites the child to say more (Dudley-Marling & Searle, in press). This "active listening" (Gordon, 1975) has the effect of keeping the talk going since nothing encourages conversation so much as the presence of an interested listener (Lindfors, 1980).

It would be worthwhile to encourage teachers to pay close attention to the effects of active listening on student language. Teachers might be asked to reflect on things they do that will have the effect of encouraging or discouraging student talk. In cases where speech-language pathologists have developed trusting, collaborative relationships with teachers, it might be possible to demonstrate the effects of active listening by teaching occasional lessons within the classroom.

Teachers can respond effectively to student talk by elaborating upon student language, thereby providing language-disordered students with additional linguistic input (Fujiki & Brinton, 1984). For example, a teacher might respond to "Mrs. Smith, I brunged my airplane for show-and-tell" by saying "Oh, Tommy, you brought your favorite toy to share with us." This provides the student with linguistic data without evaluating the "correctness" of his language. Speech-language pathologists will need to provide teachers with specific direction on which language structures require elaboration and the nature of the elaborations, keeping students' individual needs in mind. But the goal here is to support individual therapy, not to supplant it.

Part of the art of responding to children's language is knowing when not to respond. Encouraging teachers to increase wait-time, the amount of time teachers give students to respond to their initiations, to 3-5 seconds has been found to affect student language positively. Increasing wait-time can increase the length of student responses, the amount of student initiated talk, the frequency of student interactions, and the use of speculative thinking (Honea, 1982; Rowe, in Hassler, 1979). In the authors' experience, teachers are particularly receptive to suggestions to increase wait-time.

## Principle 4: Using Language for Learning

In language rich classrooms children learn language, learn through language, and learn about language (Savage, Flynn, Ohlms, & Christie, 1981). Language rich classrooms provide frequent demonstrations and opportunities; they encourage children to use language for learning, and bring their background knowledge and experiences to learning.

Many teachers may need to be encouraged to allow students to use language to integrate classroom learning into their background experiences. For example, a geography lesson focusing on islands may be an occasion for students to express their own experience with islands. Some new Canadians may have grown up on islands. Others may have visited Vancouver Island, Cape Breton, or, perhaps, picnicked on the Toronto Islands. Others' experience with islands may be limited to books or TV programs. Whatever the level of experience, the discussion should provide an opportunity for students to activate their background knowledge to provide a framework for the lesson (Dudley-Marling & Searle, in press).

Students need to use language to monitor and report their own learning. It is more useful, for example, for students to outline what they plan to do, or are doing, in solving a math problem in their own words, than it is for them to repeat from memory a series of steps they must use to reach the correct answer. In general, "in learning through talk—as in learning to talk—children are active contributors of knowledge. What they need is evidence, guidance, and support" (Wells, 1986, p. 65).

## Conclusion

Students will learn more about language, and about their world, if teachers provide frequent opportunities for students to use their language and their experiences. But teachers often have to be reassured that the goal of developing language rich classrooms is not to promote a constant stream of chatter from students that would drive many teachers to an early retirement. Instead, the goal is to promote meaningful talk which is part of classroom learning, not separate from it.

When speech-language pathologists collaborate with regular classroom teachers to develop language rich classrooms, language therapy is extended throughout the child's day. Lindfors (1980) states, "Involving a child in a veritable language bath all day every day in the rich and meaningful activities that fill our classrooms is the best possible way that we can enhance the child's growth of language structure" (p. 79).

Collaboration between teachers and speech-language pathologists on the creation of language-rich classrooms is most likely to occur when teachers see themselves as active participants in language assessment and intervention (Frassinelli, Superior, & Myers, 1983; Ripich & Spinelli, 1985) and not merely the recipients of expert advice (Fujiki & Brinton, 1984). Speech-language pathologists need to learn to "...consult, and be consulted" (McKinley & Lord-Larson, 1985). The develop-

ment of these relationships will require considerable effort and, perhaps, time, but the rewards to children with language problems will make the effort worthwhile.

Address all correspondence to:

Curt Dudley-Marling  
Faculty of Education  
York University  
4700 Keele Street  
North York, Ontario  
M3J 1P3

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