English for Specific Purposes in the Clinical Setting: Applications for Hearing Impaired Language Learners

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The development of English language skills through reading, writing, signing, speaking, and listening is the primary concern of most clinicians and instructors working with hearing-impaired clients and students. There appears, however, to be a need for increased understanding of English in all modalities as *functional* or *communicative,* by both clinicians and teachers in training programs (Ewer, 1975, 1983; Moores, 1978) and by deaf and hard-of-hearing students themselves (Meath-Lang, Caccamise, & Albertini, 1982). A need exists, then, for clinical and instructional strategies which emphasize and clarify the purposes and functions of speech, language, and hearing acts, with a framework for organizing such strategies (Maxwell, 1979; Albertini, 1981). Such a framework may be found in the area of teaching English as a Second Language (ESL), specifically in the movement for *notional-functional approaches* or *English for Specific Purposes (ESP).* This paper describes the rationale for ESP approaches, potential use of ESP in rehabilitative contexts with hearing-impaired learners, and an example model for clinical use.

Language intervention is one of the primary topics in the literature on hearing-impaired learners, and is an activity which may typically constitute the greater part of a deaf or hard-of-hearing youngster's school day (Moores, Weiss, & Goodwin, 1978). English language skills in reading and writing are valued highly by hearing-impaired students, especially as they grow older (Meath-Lang, 1978); and the expression and systematic learning of English through speaking, listening, and signing is a major curricular concern (Albertini, 1981).

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It is difficult, then, to reconcile this investment of time, energy, and dedication in view of the well-documented English language difficulties experienced by deaf and hard-of-hearing students (Kretschmer & Kretschmer, 1978) and the limited understandings of both students and instructors. First, deaf and hard-of-hearing students themselves appear, in self-reported descriptions of their English language learning, to have a minimal understanding of *functional, pragmatic, communicative* English in any modality (Meath-Lang, Caccamise, & Albertini, 1982). Further, their instructors — and, it has been suggested, most language instructors trained in specialized and general teacher/clinician education programs — report having little or no graduate work in functional, technical, goal-specific language in rehabilitative contexts, as opposed to discrete performance skills (Ewer, 1975, 1983; Woodward, 1974). Clinical and instructional strategies relating real-world desires, goals, and needs to the clinical environment and communication classroom remain a neglected area of study (Kretschmer & Kretschmer, 1980). Concern for student perceptions and programmatic deficiencies, coupled with recent heightened interest in "learner-centered" instruction, intervention, and pragmatic rehabilitation have led clinicians and teachers to a re-examination of approach.

Such re-examination can often be conducted fruitfully by examining, borrowing, and appropriately modifying frameworks and strategies from other fields. In the last decade, English instructors working with deaf and hard-of-hearing students have found useful methods adapted from the field of English as a Second Language (ESL) (Albertini, Meath-Lang, & Caccamise, in press; Mitchell, 1975). In trying to formulate a more organized set of strategies highlighting functional communication for deaf and hard-of-hearing students, rehabilitative audiologists, speech pathologists, manual/simultaneous communication specialists, and English instructors might again turn to a subfield of ESL. That subfield is the area known as notional-functional syllabus design or, more broadly, English for Specific Purposes (ESP).

DEFINITION OF ENGLISH FOR SPECIFIC PURPOSES

In the 1960's and 70's, the fields of linguistics, psycholinguistics, and sociolinguistics developed greater sophistication in describing speech acts and analyzing communicative discourse (Austin, 1962; Cazden, John, & Hymes, 1972; Halliday, 1975). At the same time, the discipline of education called for more learner-centered and experientially-based curriculum (Bruner, 1966; Pinar, 1975). Language teachers became increasingly aware of the varying goals, needs, concerns, interests, and experiences learners bring to the classroom or clinic. This interest led to a classroom approach utilizing the English used in learners' specific environments and fields. English for Specific Purposes, or ESP, became that subfield which analyzes the linguistic and interactive features of particular situations encountered in the

target language, and addresses methods for using this information in the classroom based on learner need. This analysis and development of related methods and strategies is designed to help learners reach their goals in the target language more efficiently, realistically and meaningfully.

ESP has also been known in a curricular context as the notional-functional approach and communicative syllabus design (Wilkins, 1976; Munby, 1978). Such methods and materials, emphasizing communicative skill in relationship to real-life situations, have enjoyed a notable popularity in Great Britain and more recent attention in the United States. ESP has a number of subfields itself, such as English for Academic Purposes (EAP), English for Business and Economics (EBE), Vocational English (EVP), and the rapidly growing English for Science and Technology (EST). Fortunately, this proliferation of initials has been accompanied by a simultaneous surge of research — there is an international *ESP Journal* — and materials development in reading, writing, spoken discourse, pronunciation, and listening. (See Appendix for a partial listing of materials.)

ORGANIZING AN ESP APPROACH

Background Information

Procedures preceding the use of an ESP/notional-functional model are familiar to clinicians in audiology and speech pathology by virtue of their similarity to recent views of diagnostic assessment. Munby (1978), for example, designs his communication syllabus prescriptively after having outlined the learner's background, education, social status, language learning experiences, and, primarily, the purposes for which s/he requires the target language. Munby's procedure, then, is similar to the initial interviews in audiological and speech diagnostic assessments. Like the fields of speech and hearing, ESL attaches great importance to environmental and social influences on language learners, based on second language learning theory (Schumann, 1976).

Needs Analysis

Having identified important information about the learner's background, the process then moves to the *needs analysis* phase (Munby, 1978; Chambers, 1980). Needs analysis, also known as target situation analysis, "goes into target situations, collects and analyzes data in order to establish the communication that really occurs — its functions, forms and frequencies, and provides a basis for selecting the long-range aims of the course" (Chambers, 1980, p. 25). A target situation may be a general conversational procedure (for example, going through customs, making a long-distance business call), a social interaction (inquiring about one's family members at a gathering), or a professional situation (a medical interview, a lecture-demonstration of software). The data obtained in the needs analysis may

be collected from professionals in a given field, employers, fellow instructors, and, in some cases, students experiencing the situations themselves. The needs analysis also specifies intermediate, transitional language structures and communication experiences to allow for pedagogical considerations and social survival of the client or student. The needs analysis is generally an open-ended collection of language structures, conversational forms, and listening and pronunciation strategies and cautions. As in all academic and clinical interactions, the depth and number of these language structures and communication skills covered are dependent on time constraints of the program. Changing goals on the part of clientele and the changing nature of career fields challenge the ESP instructor's flexibility; hence, flexibility and openness are necessary prerequisites in implementing an ESP approach.

Presentation Phase

The needs analysis data can be organized in a number of ways for instructors. Many of the standards and methods traditionally used in language teaching can be used in the presentation phase; the major difference in an ESP approach is the constant attention to learning specific skills for immediate application, and the need for the teacher to focus on and refer to real-world situations continually. An example model is given below.

IMPLICATIONS OF ESP FOR CLINICIANS

Clinicians and instructors working with hearing-impaired students may find in ESP literature useful ways of organizing material in order to arrive at the more functional, pragmatic levels of communication which have been the concern of many recent articles in speech and hearing (McMahon, in press). Deaf and hard-of-hearing students' perceptions, which have been recorded in recent studies (Meath-Lang, Caccamise, & Albertini, 1982; Rohland & Earwood, in press), indicate that the concerns clinicians and instructors express related to students' understanding of the purposes of communication training are well-founded. ESP, it has been noted above, is an approach which keeps the rationale for language learning *consciously* before the student. This presupposes some basic experience on the part of the student; thus, ESP can be most readily implemented with adolescent and postsecondary-level deaf and hard-of-hearing students, although younger students might be taught some socio-conversational and listening skills using an ESP framework. Adolescent and young adult hearing-impaired students are likely the most appropriate group for two reasons beyond "experience," however. First, many of these students are enrolled in some type of vocational or pre-vocational education, making the "real" world more real and more immediate. Second, most deaf and hard-of-hearing students have been schooled in language, speech, and auditory training since early childhood in

intensive programs; thus, a different, more applied approach at that point in the students' educational careers may be an important motivational consideration.

While ESP is primarily designed for *English language* learning, this should not pose problems for the speech or hearing clinician or sign language instructor interested in situation-specific communication training. Clinicians working in rehabilitative and educational contexts have consistently been involved in listening comprehension, speech and speechreading activities which focus on "chunking" strategies, recognition of propositions and conversational conventions, and pronunciation and recognition of new vocabulary through training. Most ESP materials contain similar strategies. Further, attention is paid to modality and appropriate use of modality in ESL/ESP curricula; therefore, many listening comprehension exercises and pronunciation lessons can be found in and adapted from these materials. Unlike some traditional clinical approaches, these "multi-channel activities," as they are termed in ESP literature, are generally viewed as that: information transfer and reception are taught and evaluated holistically (communicatively), with attention given to nonverbal as well as verbal features of interaction. Clearly, few language specialists can do this type of multi-channel or multi-modal work alone; and, like some of the more recent movements in the fields of rehabilitative audiology and speech, team approaches are advocated increasingly in ESP literature (Chambers, 1980; Ewer, 1983). Interaction in communication is also generally separated out from textual (written) functions in most ESP materials; therefore, speaking, signing, and listening skills are readily identifiable and available to the clinician, making the practitioner's role on the communication team more sharply defined.

How does a clinician/instructor, or preferably a team of clinician/instructors and, perhaps, vocational instructors implement and organize an ESP approach for hearing-impaired students? Models abound in ESL literature, some quite elaborate; but a simple one for those exploring the possible use of a modified ESP approach is offered in Table 1 and discussed in the next section of this paper. There are a number of commercially available materials, some of which are listed in the Appendix. Many accepted, traditional clinical and instructional strategies can be used in an ESP context; i.e., ESP can be thought of by clinicians as an organizing framework for the listening, speechreading, and speech/language skills and behaviors that they now teach and elicit.

AN ESP MODEL FOR HEARING-IMPAIRED STUDENTS

Let us assume that a residential or day school, mainstream program, clinic, or individual clinician has determined that an approach to developing speech, hearing, reading, writing, and signing skills in an adolescent student

might be productively and efficiently modeled on a notional-functional, or ESP, framework. Clinicians and instructors have access to a number of standardized tests and assessment procedures already, and these tools can continue to give diagnostic information upon which *level* of instruction can be based. These devices are particularly important where a need for grouping may exist.

Following the above "formal" assessment phase, specific-purpose assessment should take place, involving personal interaction between clinician and client/student and a questionnaire or short essay asking the students to express their personal and (for older students) professional goals. The questionnaire should ask for information on age, sex, previous work experience, schooling, languages spoken at home, preferred modality, major, and professional goals. The questionnaire or essay question needs to be written at the varying language levels being taught in the program.

When possible, an interview should follow or accompany the questionnaire. For the students, the interview can serve to clarify questions regarding the questionnaire or the program itself. For the clinician or teacher, information regarding the students' functional communication and their communication needs in specific modalities can be gleaned at this time (McMahon, in press).

The clinician, having listed the goals and preliminary language needs of the student, may wish to do a needs analysis if published curricula are not helpful in this situation. The needs analysis, again, refers to a description of activities involving communication. These situations are detailed, not only for "grammar," but also with regard to such factors as environment, role of the participants, and purpose of the interaction. Team support from other professionals in communication and in technical and professional areas studied is essential.

Advanced-level students may also be able to participate in the needs analysis process to understand the reasoning behind the communication skills that they are learning. An important component of the courses that are taught using this model is preliminary discussion by clinicians, teachers and students of the need for communication in specific contexts. This will foster a more conscious awareness in each student's approach to learning reading, writing, speech, listening, and signing skills — awareness that was not evident in the student perceptions discussed above.

The conduct of needs analysis should be appropriate for the institution and its structures. If English teachers, audiologists, speech pathologists, or sign instructors have access to teachers in other classrooms and major programs, their knowledge of the situations demanding use of specific types of language will be much more complete. Such information-sharing should be an ongoing process, informed by direct classroom observation and field work (visits to professional environments, examination of other curricula, interviews with deaf people in the field, etc.).

Table 1

A model for conducting functional analysis of target language situation

SITUATION			
Social Needs[a]	Language Structures[a]	Forms of Discourse[a]	Receptive Skills[a]

[a]Key: Reading (R), Writing (W), Speechreading (SR), Listening (L), Speaking (SP), Sign reception (SiR), Sign Expression (SE)

The *Social Needs* in Table 1 refer to background considerations that are meaningful in a given social context. In a sense, these needs are cognitive, intellectual understandings required by the major situation being discussed, but they are not analyses of the situation itself as much as analyses of language-producing activities and requirements of the situation. This is the area in which language can be discussed and described. For example, in the situation of "discussing political beliefs," instructors/clinicians and students might talk about the need to support one's opinions with facts, the need to avoid attacking others personally, and methods of persuasion.

Language Structures refer to the grammatical elements of the situation being encountered receptively and dealt with expressively. For example, in the situation of a political discussion, indirect (reported) speech ("he says that the accusation is false"; "she said that she would run again") and personal opinion clause/complements ("I think that . . .") are likely to be encountered in speechreading, listening, and reading, and required in speaking, signing, and writing. Where many curriculum models approach syntactic development of hearing-impaired students through teaching discrete skills of a type or order based on length of utterance, ESP models select structures with regard to frequency of ocurrence in a given situation. Structures taught are prioritized by their frequency and importance in functioning in the situation; and the number of structures covered depends on time and level of student skill.

Forms of Discourse are the types of communication, often interpersonal, demanded by particular situations. This area differs from social needs by going beyond "background information" about a social situation into actual communicative pragmatic forms. In the political discussion example above, for instance, raising new issues through the imperative "let's" might be discussed and practiced in speaking and writing, and might be noted as a signal for change of topic in speechreading. Transitions and illustrations are two common discourse forms that cut across a number of situations. (For a detailed discussion of pragmatic discourse and hearing impaired

learners, see Kretschmer and Kretschmer, 1980).

Receptive Skills refer to the specific modalities of speechreading, listening, reading, and sign language reception, but with particular attention to analyzing the expectations surrounding the target situation. Discussion of the various subskills aiding comprehension and practice with materials and conversation focused on the target situation are important. As mentioned above, for example, opinion clauses are to be expected in a political discussion situation. Imperative verbs beginning a sentence (commands) might be expected by a trainee in a technical training lab situation learning a new procedure. Particular expressive and receptive skills should interact at similar times in the situation being discussed; i.e., practice in both receiving and expressing opinion clauses in whatever modalities are being developed should be practiced at about the same time.

The model in Table 1 lists modality-related skills assuming an interdisciplinary framework, but may be used in a more restricted setting. The model

Table 2

An example target language situation: political discussion

SITUATION: Participating in Political Discussion			
Social Needs	**Language Structures**	**Forms of Discourse**	**Receptive Skills**
Need to know fact vs. opinion (R, W, SR, Sp, SiR, SE)	Pronunciation of new names, vocabulary (R, W, Sp, L, SR, SiR, SE)	Conversational turn-taking (Sp, SR, L, SiR, SE)	Receiving proper names, vocabulary (R, SR, L SiR)
Use of supporting arguments (W, Sp, SE)	Reported speech ("President Reagan says that...") (W, Sp, SE)	Requesting clarification (Sp, SR, L, SiR, SE)	Interpreting and responding to arguments (R, Sp, SR, L, SiR, SE)
Avoidance of personal attack (discussion)	Opinion clauses/ complements ("I think that . . .") (W, Sp, SR, SE, SiR)	Changing discussion topics ("Let's discuss . . .") (Sp, SR, L, SiR, SE)	Receiving transitional words, clauses (S, SR, L, SiR)
Polite disagreement (W, Sp, SE)			
Responding to the point discussed (R, W, Sp, SR, L, SiR, SE)	Cause-effect clauses ("because," "therefore") (W, R, Sp, SR, L, SE, SiR)	Transition between ideas (W, Sp, SR, L, SE, SiR)	
	Using expression, body shifts to clarify points (Sp, SE)		

is also quite open-ended, in recognition of the realities of doing clinical work and teaching, where time is often at a premium and at the mercy of official and unofficial interruptions. The open-ended nature of the model allows the teacher to add or subtract activities, or give greater priority and time to certain experiences.

Tables 2 and 3 give two example situations using an ESP type of model. Table 2 is an example of a more social nature, the aforementioned situation of participating in a political discussion. While there are myriad language and conversational structures, skills and needs that can be listed, one can assume that in a limited time frame, the clinician or instructor has determined that those listed are of particular importance. Certain skills, such as indirect or reported speech, cross all modalities; while other skills, such as shifting the body to denote speakers or characters in public speaking or signing, are more specific to those modalities or languages.

Table 3

An example target language situation: introduction to computers

SITUATION: Becoming Familiar With Computers			
Social Needs	**Language Structures**	**Forms of Discourse**	**Receptive Skills**
Need to be considerate of others' needs in time-sharing, terminal sharing (discussion)	Pronunciation of new vocabulary, idioms (boot the dos; time-sharing, initialize, etc.) (W, Sp, SE)	Listing necessary steps in a process chronologically (W, Sp, SE) Requesting clarification (Sp, L, SiR W, R, SE)	Receiving new vocabulary & idioms (R, SR, L, SiR)
Polite interruption; expression of needs for terminal time, programming needs (Sp, L, SR, SiR, SE)	Imperative verbs (W, Sp, SE, SR, SiR) WH - Question forms for clarification		Reading & following directions (R, SR, L, SiR) Responding to computer-related questions (SR, R, L, Sp, SE, SiR)
Computer ethics; privacy of information (discussion)			Following directions (SR, SiR, R)

The skills outlined tend to increase in difficulty. Practice on vocabulary and proper names under *Language Structures* and *Receptive Skills,* for example, work into clause-level skills, such as recognizing transitions giving a cause or effect. Knowing a fact as opposed to an opinion under the *Social Needs* category leads into the issue of participating in a responsible way using facts and opinions.

Table 3 outlines a more "technical" target situation. This is the type of situation where most clinicians and instructors will need to work collaboratively with colleagues in vocational/technical programs or adapt from the body of ESP material presently available. English for Science and Technology has a particularly wide range of materials available, as can be seen in the materials listed in the Appendix, and these materials are being supplemented rapidly.

The target situation outlined in Table 3 is a common one in high schools and even elementary schools today. Learning how to use a computer is not thought of as a particularly communicative situation, given our stereotypes of the isolation in programming and other computer-related procedures, but certain interactive language principles are operative here, as well as language structures used by the individual writing or reading directions.

Presumably, the students in this situation are at an elementary stage in their knowledge of computer use. Hence, the *Social Needs* category involves some of the basic interpersonal considerations which may affect comfort in communication and acceptance of the hearing-impaired co-worker later. It might be argued that such social concerns are out of the realm of communication training and instruction; but where the possibility exists for improved communication and understanding versus frustration and misunderstanding, these issues are relevant. At any rate, the instructor or clinician has control over time spent on social needs.

The *Language Structures* themselves are somewhat restricted to the imperative verbs used in both basic programming and, more generally, in giving directions. Vocabulary and idiomatic usage will require extensive work both in the *Language Structures* and *Receptive Skills* categories, however. *Forms of Discourse* will involve questioning related to clarification of directions (keeping in mind the issues of politeness and propriety in a work-place raised in the *Social Needs* category) and work in giving clear directions by listing out all of the necessary steps in a process chronologically. Given time, the *Social Needs* category might also include, in addition to discussion of time-sharing and resultant needs for consideration of others, some examination of the issues of computer ethics, piracy, and respect for the privacy of users, all tangential to the modern communication process.

CONCLUSION

Two examples of target communication situations have been discussed in this article and it is apparent that there are countless others which put complex demands on the communication skills of our students and clients. Additionally, technological and social developments, such as computer literacy, are adding to these demands in that ephemeral area known as pragmatic competence. Clinicians and instructors need to make pragmatics less ephemeral and functional communication more meaningful for hearing-

impaired learners.   Developments in the area of English for Specific Purposes provide needed information on how language and specific modalities work in particular environments; and this is important whether or not a clinician or instructor chooses to use such a model.   Knowledge of the environment and knowledge of students and clients interact, and such increased insight should have direct impact on the area of carryover.

Use of specific-situation communication skill training has begun in the areas of audiology and speech pathology (Burke & Whitehead, 1981).   A productive alliance with the field of English as a Second Language may thus be only beginning.

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APPENDIX

A LIST OF ESP-BASED MATERIALS

I. *Background Reading:*

Crandall, J.A. *Adult vocational ESL*. Washington: Center for Applied Linguistics, 1979.

Ewer, J. *Formal written and oral scientific English: Main microacts (Functions/notions) and their indicators*. Santiago: University of Chile, 1981.

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II. *Journal:*

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III. *Textbooks:*

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   Discovering discourse, 1979.

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   Engineering, 1978 (Dudley-Evans, Smart, & Wall).

   Geology, 1977 (Barron & Stuart).

   Mathematics, 1980 (Hall & Bowyer).

   Medicine, 1979 (O'Brien, Jameson, & Kirwan).

   Nursing science, 1978 (Kerr & Smith).