

Review Article: Languages for Specific Purposes

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The typical applied linguist, having studied linguistic description, perhaps several languages, and related fields such as ethnography, psychology, or pedagogy, has in recent years been confronted with demands for entirely new areas of expertise, for example in testing, computer technology, the neurosciences, or business management. The more linguistic research has expanded our knowledge of the social and psychological determinants of language use and of structural patterns in discourse and conversation, the more we can expect to apply that knowledge to problems arising out of other disciplines and endeavors. Moreover, as international commerce and communication have grown ever more intense in activity and immediate in effect, proficiency in several languages and in related linguistic skills has become virtually indispensable to the average educated citizen. As a result, the demand for training in other languages has gone far beyond the traditional goals of appreciating foreign language literature, or of acquiring a traveler's repertoire of phrases. And therefore, applied linguists have been called upon to produce a much greater range of

language teaching programs than has previously been developed.

Numerous business, educational, and social institutions have recognized the need to enable their employees, students, and members to achieve proficiency in a second language, with principal interest, however, in the special areas of vocabulary and language skills that are critical to the institutions' functions. Thus, in the past fifteen years, educational research and programs in teaching languages for specific purposes (LSP) have grown immeasurably. It is difficult to estimate the extent of such work (though see Hoedt and Turner 1981, for a recent survey of institution-based research projects), for if the case of the teaching of English for specific purposes (ESP) is any indication (see Robinson 1980, for a summary of literature in this subfield), there are likely thousands of specially designed language courses in technical areas as diverse as aviation mechanics, soil science, restaurant waiting, university life, and labor union negotiation.

While circumstances have determined that this review deals with material on ESP, it should not then be assumed that English has any exclusive role to play in the development of LSP programs; English has a widespread application and thus surely the English-based literature serves to illustrate the issues involved in teaching LSP.

The four volumes considered here¹ contain a variety of theoretical and practical material on the planning, design, implementation, and evaluation of curricula in teaching ESP. In addition to Munby's monograph on syllabus design, the following articles are contained in the other volumes:

In Mackay and Mountford:

- R. Mackay and A. J. Mountford, 'The teaching of English for special purposes: theory and practice'
- R. Mackay, 'Identifying the nature of the learner's needs'
- J. Swales, 'Writing "Writing Scientific English"'
- J. P. B. Allen and H. G. Widdowson, 'Teaching the communicative use of English'
- M. Bates, 'Writing "Nucleus"'
- R. Straker Cook, 'A "social survival" syllabus'
- R. Mackay and A. J. Mountford, 'A programme for post-graduate soil scientists at the University of Newcastle'
- J. Morrison, 'Designing a course in advanced listening comprehension'
- R. R. Jordan, 'Language practice materials for economists'
- C. N. Candlin, J. M. Kirkwood, and H. M. Moore, 'Study skills in English: theoretical issues and practical problems'

In Mackay and Palmer:

- R. Mackay and M. Bosquet, 'LSP curriculum development - from policy to practice'
- N. W. Schutz and B. L. Derwing, 'The problem of needs assessment in English for specific purposes: some theoretical and practical considerations'
- L. F. Bachman and G. J. Strick, 'An analytic approach to language program design'
- J. D. Palmer, 'Register research design'
- J. D. Palmer, 'Discourse analysis'
- M. K. Phillips, 'Toward a theory of LSP methodology'
- L. F. Bachman, 'Formative evaluation in specific purpose program development'

In Selinker, Tarone, and Hanzeli:

- H. G. Widdowson, 'English for specific purposes: criteria for course design'
- J. E. Lackstrom, 'Logical argumentation: the answer to the discussion problem in EST'

- E. M. F. Payne, 'A taxonomic approach to the lexis of science'
- J. Swales, 'The function of one type of article in a chemistry textbook'
- P. Wingard, 'Some verb forms and functions in six medical texts'
- D. Tyma, 'Anaphoric functions of some demonstrative noun phrases in EST'
- S. Oster, 'The use of tenses in "reporting past literature" in EST'
- T. Mage, 'Scientific and technical discourse: a comparative analysis of English and Romanian'
- C. N. Candlin, C. J. Bruton, J. H. Leather, and E. G. Woods, 'Designing modular materials for communicative language learning; an example: doctor-patient communication skills'
- R. Mackay, 'Developing a reading curriculum for ESP'
- J. N. Crofts, 'Subjects and objects in ESP teaching materials'
- M. L. Tickoo, 'ESP materials in use: some thoughts from the classroom'
- T. Huckin and L. Olsen, 'Teaching the use of the article in EST'
- L. Bartolic, 'Interpretation of "information transfer" from a diagram'
- M. F. Schmidt, 'Needs assessment in English for specific purposes: the case study'
- A. H. Urquhart, 'Operating on learning texts'

Although little may be common to all the perspectives evidenced in this literature, there are two conceptions that appear to be inherently tied to the development of ESP:

- 1) the learner's needs and objectives are fundamental to the specification of curriculum content;
- 2) the linguistic unit(s) to be conveyed in the curriculum are determined by the communicative requirements of the specific target language situation, not by any a priori designation of grammatical relationships.

It will be seen that there are several views on the proper interpretation of these conceptions, as well as different approaches to determining needs and accomplishing the communicative goals of the learners.

Following a summary of the categories of ESP courses, the contents of each volume will be briefly described. The theoretical and practical positions represented in these collections will then be compared.

TYPES OF ESP COURSES

It is widely assumed that LSP courses are intended for adult learners, since a minimal general knowledge of the target language (TL) is presupposed. The interrelatedness of LSP curriculum development with the work of the Council of Europe on a Unit-Credit system of adult language training (van Ek 1975, 1976) is a notable part of the recent history of LSP. The approach of van Ek (1976) to developing a common core syllabus for all learners, not only adults, involved the delineation of language forms according to the notional (semantic) and functional (pragmatic) requirements of authentic social interaction. ESP courses, as will be seen below, have followed a similar approach. They are typically distinguished from "general" language courses in that they are oriented toward a specific population of TL learners, who have needs for receptive or productive communication in the TL that are delimited by well-defined

occupational or educational domains. According to Strevens' (1977) taxonomy, the occupational/educational dichotomy is the primary distinction to be made, so that courses in English for soil scientists, general courses in English for science and technology (EST), or English for businessmen might be oriented either toward industrial and commercial employees, or toward students whose eventual goal is employability. The specific purpose course for students in a scientific or commercial field is distinct from the general English for academic purposes course (EAP), which involves study skills and orientation to the higher education community.²

SUMMARY OF THE VOLUMES REVIEWED

In Communicative syllabus design (CSD) Munby proposes a systematic approach to determining the specific communicative needs of an individual or groups of TL learners. This approach has a great debt to the prior Council of Europe work. Munby first surveys theories of communicative competence, especially those of Chomsky, Habermas, Halliday, and Hymes, and incorporates many insights from the work of British applied linguists such as Widdowson, Strevens, Candlin, Trim, and Wilkins. He attempts to synthesize the previous theory into an "operational instrument" for defining the communicative competencies required by a particular set of participants in

a given learning situation. With the participants as "input," the instrument is intended to allow appropriate determination of their needs (the "Communicative Needs Processor"), of the language skills required by those needs (the "Language Skills Selector"), of the sociosemantic minifunctions required (the "Meaning Processor"), and of the language forms that would realize those functions (the "Linguistic Encoder"). The "output" of this instrument would be the raw material for an instructional syllabus, although Munby refrains from considering the "implementational constraints" (sociopolitical, logistical, administrative, psycho-pedagogic, and methodological) that would inevitably contribute to the shape of a real syllabus.

For virtually every aspect of the instrument, Munby proposes a purportedly exhaustive taxonomy of the elements and subelements that could be specified about a given learning situation. The Communicative Needs Processor consists of information about the participant(s), the purpose of learning, the setting involved, the types of interactions anticipated, the instrumentality of the interaction, and the communicative events, communicative keys, dialects, and target levels required. Each of these elements is in turn specified in hierarchical taxonomies, with for example, three types of setting noted (physical, temporal and psychosocial), and twenty-five supposed elements in only the psychosocial type. Similarly, sixty-

one types of social relationships (one element of "interaction") are proposed, and fifty-one antonymous pairs of adjectives are listed as communicative keys (e.g. open - secret, excitable - inexcitable). The Language Skills Selector also lists fifty-four separate skills, each with several subelements.

This taxonomic approach to the analysis of needs is illustrated with two examples: a description of the English needs of a Spanish head waiter/receptionist, and of a class of Venezuelan university agricultural science students.

Mackay and Mountford's English for specific purposes (M & M) was perhaps the first widely circulated collection of articles on curriculum design in ESP. The ten articles all discuss theoretical and practical issues in the selection and presentation of material for teaching specific topics, with sample preliminary questionnaires, syllabuses, and exercises in fields such as veterinary medicine, chemistry, engineering, and economics. The introductory chapter by Mackay and Mountford outlines the types of specific courses that are possible and discusses in particular the linguistic, psychological, and pedagogical factors underlying the design of EST courses. A short chapter by Mackay presents a sample questionnaire used as a needs assessment for such a course. Three chapters, by Swales, Allen and Widdowson, and Bates, then discuss the difficulties and principles to be considered in the

preparation of textbooks for ESP. Allen and Widdowson's article is perhaps the clearest statement of their early position on guided teaching of specialized technical discourse. The final five chapters describe several specific purpose courses designed for foreign post graduate students at British universities. These are presented in outline form by their designers: a course by Cook in oral survival skills needed in the academic environment, a reading comprehension course for soil scientists by Mackay and Mountford, a course in listening comprehension for general science students by Morrison, a multiple-skills course for economics students by Jordan, and a course in study skills by Candlin, Kirkwood, and Moore. All of these chapters furnish the rationale for each course, a detailed description of the course outline, and sample units with the linguistic structures presented, as well as pedagogical guidelines for the conduct of the course. These would thus serve as models for any similar undertaking in another context or other academic fields.

The anthology Languages for specific purposes: program design and evaluation collected by Mackay and Palmer (M & P), addresses those issues in the development of specific-purpose programs that are less language-based, that is, needs assessment, program evaluation, the setting of objectives and estimation of resource availability, and pedagogical methods. Mackay and Bosquet present a useful

model of the stages and phases (sub-stages) involved in LSP curriculum development. The model shows how different activities such as student needs assessment, teacher training, and program evaluation, fit systematically into the development of a complete program. Schutz and Derwing discuss theoretical and practical considerations involved in determining student needs. Bachman and Strick provide a model for optimizing the fit between course needs and assessed resources (time, money, space, etc.). In two articles, Palmer surveys the fields of register research and discourse analysis with particular regard to their relevance for specific-language course design. Phillips emphasizes four principles for LSP methodology, all oriented toward making the material as authentic and meaningful as possible. Finally, Bachman encourages the use of formative evaluation in the development of LSP programs.

Selinker, Tarone, and Hanzeli's English for academic and technical purposes (STH), similar in intent to Mackay and Mountford's collection, has a slightly different emphasis. This collection assembles work that fits broadly into three categories: (1) articles on theories of course design and methods, (2) specific descriptions of academic and scientific discourse patterns and the cognitive skills involved in processing them, and (3) still more circumscribed descriptions of certain grammatical structures and their behavior in academic and technical texts. Just

one article resembles the case study course descriptions seen in M & M; this is Candlin, Bruton, Leather and Woods' description of their very detailed modular course for doctor-patient communication skills.

In the first category of theoretical articles are Widdowson's contribution, in which he makes an important distinction between a goal-oriented and a process-oriented syllabus; Mackay's description of a reading curriculum developed according to the stages outlined in Mackay and Bosquet's article (from M & P); two articles, by Crofts and by Tickoo, considering the difficulties encountered in selecting and grading syllabus materials; and Schmidt's advocacy of a case study/observational approach to needs assessment. In the second category are articles by Lackstrom on EST logical argumentation, by Mage comparing classification in English and Romanian, by Bartolic on information transfer, and by Urquhart on the process of inferencing from scientific discourse. The final category includes articles by Godman and Payne on the lexis of science, Swales on the function of the past participle, Wingard on verb forms and functions, Tyma on anaphora, Oster on tense use in reporting past literature, and by Huckin and Olsen on article use. Two of the editors, Selinker and Tarone, have provided comments at the end of each article.

COMPARISON OF THE TEXTS

In order to evaluate this wide representation of work in LSP, five aspects of curriculum development, which were implied in Mackay and Bosquet's article (in M & P), will be used as a basis for comparison: needs assessment, linguistic description of course content, program and lesson design, methodology, and evaluation. Excluded from this discussion are aspects of Mackay and Bosquet's pre-program development stage and program maintenance stage, that is, issues concerning the setting of educational policy and effective program administration.

Needs assessment

Three approaches to needs assessment were suggested in these volumes. One is represented by Schmidt (in STH), the observational case study, which in her case involved observation with a student at business administration lectures. This in-depth participation in the learner's world by the curriculum designer has the potential, Schmidt shows, of discovering specific points of difficulty experienced by the prospective ESP student that may not be evident to the designer through independent research. This approach was also employed by, among others, Candlin, et al. (in STH), who observed and sometimes audio- or video-recorded doctor-patient consultations.

A second approach is the use of the questionnaire or interview, on which professionals experienced in the type of target situation, as well as prospective learners, respond with their perceptions of the types of forms, functions and skills, or their relative importance, that are critical to the program goals. This approach was also employed by Candlin and his associates, while Mackay (in M & M) and Mackay and Bosquet (in M & P) provide sample questionnaires.

The third approach involves selecting existing TL textbooks and materials for an analysis of the linguistic and discourse features which characterize the specific discipline. Virtually all of the actual courses and the descriptive studies presented in the books discussed here have adopted such an approach, with Munby's taxonomy (CSD) being the most detailed outline of how one might systematize the results of such an analysis.

An effective needs assessment would surely incorporate all three approaches, as Candlin and his colleagues (in both M & M and STH) illustrate, since any one approach alone risks obtaining a biased view of needs. The most careful observer can overlook significant portions of the TL discourse, even a well-designed questionnaire can only obtain the respondents' perceptions of their needs, and the text analyst may fail to uncover the areas of greatest difficulty for learners of a specific domain of discourse. A schema such as Munby's, however comprehensive it appears,

may be unwieldy, owing to the amount of intuition-based judgments that must be made with it. Munby attempts to distinguish his approach from that of the stylistic analyst, yet to specify the characteristic interactions, communicative events and keys of the target situation according to his taxonomy, very precise observation and data collection would be necessary. His approach cannot be undertaken a priori, but rather constitutes an analytical framework for organizing and assigning priority to data derived from observation and analysis. Munby does not provide the instruments for obtaining the data, of course.

Schutz and Derwing's case study of a needs assessment (in M & P) suggests some procedures and limitations of using questionnaires, but it lacks the specific details that would illustrate their points. Their assessment of needs, moreover, was based only on students' perceptions.

It should be evident that very different needs will be ascertained, depending on the source of the information: the prospective students, former students viewing their needs in retrospect, language curriculum developers, employers, study demands in academic institutions, or ethnographic investigation of target situations. Nonetheless, as Mackay and Bosquet (in M & P) point out, from any of these sources, the designer must distinguish among real, current needs, future hypothetical needs, student desires, and teacher-created needs. Furthermore,

fundamental to the decisions for course design is a distinction along another dimension (to be discussed later), between a goal-oriented approach and a process-oriented approach. This distinction is the basis for differentiating between goal-like needs for TL forms or discourse functions, and "process" needs for methods or skills that would enable the learner independently to acquire and use target forms outside the educational setting. While assessment of this latter type of need has been relatively neglected, process needs have been incorporated somewhat in courses for general academic or technical skills, such as Candlin, et al.'s study skills course (in M & M).

Linguistic description of course content

Several of the selections in the volume, especially those in STH mentioned above (e.g. Huckin and Olsen on the use of the article), give detailed analyses of segments of specialized registers and discourse. Other course descriptions include illustrations in outline form of the kinds of target items to be taught, for instance, Munby (CSD), Cook (in M & M), and Candlin, et al. (in STH and M & M). Although Palmer's two essays (in M & P) are intended to present an overview of how such register and discourse analysis can be designed, they are not especially useful either to an uninformed curriculum specialist or to anyone already familiar with such analysis. Not only do the two overlap in content, but

they amount to little more than a listing of trends and schemata for discourse analysis, with no synthesis of these trends. The point is made, however, that a register analysis aims for a qualitative and quantitative description of the norms of language use in specific social contexts, usually of the syntactic forms and lexical items that occur. On the other hand, discourse analysis attempts to determine the relationship between language forms and their functions in texts. Allen and Widdowson (in M & M) argue that the general discourse functions of particular language domains (e.g. definition, classification) are the crucial stuff of ESP syllabuses. While the pedagogical effect of teaching these functions explicitly will be questioned below, it is certain that the syllabus designer will need elaborate information about the peculiar linguistic forms and functions of the specific domain to be taught.

Consequently, the articles giving detailed analyses of grammatical features in specialized areas are intrinsically valuable. The important distinction between register and discourse is the basis for evaluating applicability of the studies. It should be clear that a mere listing of the forms appropriate to a given discipline or context does not provide a framework immediately conducive to teaching or learning. Only through an analysis of the use of forms in discourse will it be clear how meanings are determined. For example, perhaps the most valuable insight in Godman and

Payne's article (in STH) on semantic constituents and differentiation of scientific vocabulary is their claim that verbs which are near synonyms differ in pragmatic use depending on the intended focus of a described action. A focus on the agent or recipient of an action will then determine whether the verb is used in collocation with one or the other. Similarly, a discourse interpretation in Swales' discussion of the particle in scientific writing (in STH) shows how preposed and postposed participles, instead of simply reflecting different semantic distinctions, tend to function differently, to signal new and given information, respectively.

At a more superordinate level of discourse analysis, that of sequential textual relations and interactions in conversation, the full power of this LSP descriptive work becomes evident. The best example in these collections is Candlin, et al.'s description of a course for overseas doctors in British casualty (emergency) departments (in STH). This material included the specification of patterns in conversational exchanges with varying functions, such as Interrogate, Makesure, Prognosis-Inform, Reassure, and so on. In the materials, the individually practiced functions are gradually linked into lengthy role enactments of doctor-patient interactions. When considering such materials it becomes clear that isolated practice with particular forms or functions would be inadequate to provide the learner with

an awareness of when and how to use them. Only the incorporation of the functions into lifelike, communicative sequences will simulate the linguistic requirements of the TL situation. This is the basis for effective program and lesson design.

Program and lesson design

The most theoretical, general approach to program design is Bachman and Strick's article (in M & P), which outlines a formal procedure for weighting the contribution of different factors affecting the design of LSP courses. They focus more on the adequacy of resources (time, money, space) to meet program needs and objectives, while neglecting pedagogical issues. While the intended rigor of their approach is admirable, it is far from clear how their economic-mathematical formulae could be applied in a real situation. The mathematical specification of functional relationships between quite different variables might be derived from much empirical investigation over a long period of time, but Bachman and Strick appear to be proposing a model with numerical weightings that would be put in use a priori, with only impressionistic, intuitive determination of the appropriate units of analysis and coefficients for each variable.

At a more concrete level, several of the articles in M & M present practical examples of programs. The most

complete of these are Mackay and Mountford's own description of the course for post-graduate soil scientists, and Candlin, et al.'s outline of a course in study skills. These two represent similar approaches, so the former will serve as an example. Following a needs assessment, Mackay and Mountford approached the actual lesson plans as a task in generalizing the major rhetorical functions evident in soil science texts, selecting examples of these from actual texts, and then sequencing the examples in simplified extracts so that increasingly complex grammatical realizations of rhetorical functions are taught in a spiralling syllabus. They also incorporated vocabulary and reading comprehension exercises, maintaining the linguistically-based focus throughout. This is to say that the exercises might involve selection of the appropriate term in a cloze item, identification of synonyms and paraphrases, or the transformation of one sentence into another with a thematic shift in meaning. Because of the discipline-specific nature of these courses, it is assumed that the learners are fully engaged in the communicative content that such materials inevitably carry with them. However, the exercises are typically narrowly constrained in the particular forms that they deal with, and it is conceivable that, without more imaginative kinds of exercises demanding open-ended creation of texts by the students, they will manage to accomplish the majority of the

exercises in a more mechanical fashion than was intended. This result might be unintentionally beneficial, since it is the ultimate goal of such programs to instill automatic recognition of and operation on TL forms; however, such an outcome has not been adequately demonstrated with this approach.

Courses such as Candlin, et al.'s and Cook's on survival skills (in M & M) do engage the learners in a few more open-ended exercises, i.e. activities requiring a transfer of specific learned structures or functions to less controlled situations. Role plays and more integrated tasks such as note-taking and reconstruction of information from notes or diagrams are motivating activities with wide applications in LSP courses. The inferencing skills described by Urquhart (in STH) and the information-transfer operations in Bartolic (in STH) constitute the basis for this type of communicative lesson. Candlin and his colleagues seem especially aware of the need to engage the learners in every aspect of language-related functioning in the target situation: of all the authors discussed here, they devote most attention to various kinds of classroom organizations and scheduling of activities.

The more the linguistic forms or functions to be acquired become contextualized and thereby require nonlinguistic cognitive capacities, however, the more difficult it becomes to maintain control over the linguistic

material being taught. In fact, Widdowson (in STH) questions, with some degree of caution, the wisdom in designing language-based courses at all. This is a fundamental issue in the conception of communicative language teaching, especially specific-language courses. After communicative syllabus designers had questioned the value of a structurally-based syllabus, then replaced it with a functionally-based one (in which structures were more or less matched with certain functions), as in Wilkins (1976), then found that even this approach resulted in piecemeal language acquisition, they aimed toward a more integrated course design that would incorporate functions into connected discourse simulating real-life language uses. Whatever the merits of such programs, Widdowson suggests that instead of a goal-oriented approach focussing on TL behaviors, a process-oriented approach, activating students' skill-learning capacities through engagement in realistic procedures and tasks, and independent of any but the most general structural constraints, would better meet the learners' cognitive and affective needs. Such a procedural course supposes that the learners will acquire the appropriate language forms in a more individualized, natural way, with each learner assimilating those forms from the linguistic environment that best fit with his/her current knowledge. (See Johnson 1982, and Krashen 1982, for more discussion of related curricular and psycholinguistic issues.)

Methodology

The above considerations for course design pose complex problems for the language teacher. What methodology is most appropriate for such specific-purpose materials, given the range of theoretical principles underlying the course designs?

The most systematic discussions of this question in these books are by Phillips (in M & P), Crofts (in STH), and Tickoo (in STH), although several others who outlined their materials propose specific teaching techniques. Phillips argues for four general principles of methodology: reality control (involving the topics taught and the level of complexity of the language used), non-triviality (the learning tasks), authenticity (the linguistic forms), and tolerance of error, all of which must incorporate the norms of first-language teaching in the discipline. He thereby opposes a) any simplification on linguistic bases alone, b) an insistence on grammatical conversions that are not natural to the area under study, and c) the correction of communicatively successful although formally unacceptable errors. These proposals, in accord with the skills-based approach mentioned above, are still primarily focussed on the syllabus content rather than on precise classroom methods.

Crofts follows this direction, while suggesting important modifications that are oriented toward motivating

the learners to remain engaged in what he believes are otherwise quite dull materials. He encourages the teacher to present information about the learners' specific field that is new or clarifying, or which provides a different perspective, or which must be modified in order to apply it to known contexts. He still suggests, however, that language skills be included in the content, indeed, that the terminology of language pedagogy be retained if not reinforced as a teaching tool. This seems somewhat contradictory, and Crofts fails to fully explicate his point.

Tickoo appears to take the most extreme position, advocating a return to LSP courses with an emphasis on reading and writing practice, and away from courses in which specific linguistic subskills make up the underlying structure of the syllabus.

If recent years are any indication, there will be a continuous swinging of the pendulum between "analytic" courses in which particular linguistic forms and skills are explicitly presented and exercised, and "synthetic" courses with a maximum of authentic subject matter activities. There are undoubtedly advantages to both directions, and as several authors have pointed out, the success of either would depend greatly on the particular student population and teaching context. As Crofts states:

...let us judge all attempts to improve the English of students who need it for a specific purpose by their actual efficiency and

effectiveness with the particular students for whom they are made, not by the closeness of their adherence to any set of theoretical principles.
(153)

If we take this suggestion seriously, of course, it would entail a continual reevaluation of teaching methods in every context, and a devaluing of pedagogical theory, either of which could render the teaching effort impossible. Some limitation of this extreme is therefore necessary, but the concern for local evaluation is well-advised.

Evaluation

Indeed, the question of evaluation becomes critical with the advent of such diverse materials and methods. The demands for accountability by the institutions sponsoring LSP courses will require the curriculum developer to pay careful attention to the objectives and measurement of outcomes from the program. Yet it is not surprising that this issue is the least discussed. Probably because few LSP curriculum developers have expertise in evaluation, only brief mentions of evaluation are made in these volumes.

The only focussed offering is the general, though accurate and informative, summary of evaluation principles by Bachman (in M & P). He urges the inclusion of an evaluation component in every LSP course. His main points are, furthermore, that LSP courses need especially to include formative program evaluation, rather than merely the evaluation of student outcomes, that domain-referenced tests

are appropriate instruments for both types, and that the program development staff must carry out such evaluation instead of leaving it up to outside evaluators. Bachman's position deserves recognition as the most specific application of evaluation principles to LSP. Concerned curriculum developers will have to remain alert to the requirements and complications of evaluation in LSP courses. New techniques such as domain-referenced testing must be applied through close collaboration between well-informed applied linguists and experts in measurement.

CONCLUSION

There is a spate of new textbooks about functional syllabuses and communicative/specific-language teaching, not to mention a flood of LSP teaching materials. The books reviewed here are highly representative of the recent publications, and worth reading on that basis alone. Selinker, Tarone, and Hanzeli's collection is by far the most informative and stimulating, due to the diversity of opinion and depth of analysis in its articles, while Mackay and Mountford's earlier anthology, a classic in the field, presents several additional perspectives and examples of ESP courses. Munby's complex model is an invaluable reference source for the LSP curriculum developer, regardless of whether the entire model is to be employed in the syllabus design. The Mackay and Palmer volume is the weakest of

these, for although two or three contributions in it present useful new insights, the articles tend to be either too vague or superficial, at times bordering on triteness.

Applied linguists need to keep themselves informed of the trends, problems, and products in the development of LSP programs, for these constitute not only the most innovative and necessary projects in language curriculum development, in the forefront of theory and practice, but they contain a wealth of stimulating descriptive information on the needs of learners, on the pragmatic and linguistic characteristics of multifarious domains of language use, and on the organization of pedagogically effective courses. Because of the hundreds of publications and several dozen periodicals dealing with LSP, applied linguists who are interested in learning about the field would be well served by starting with one or more of the volumes discussed here.

Notes

1The volumes to be reviewed are listed in the order of discussion:

John Munby. 1978. Communicative syllabus design. Cambridge, England: Cambridge University Press. 232 + vi pp. US\$10.95 paperback.

Ronald Mackay and Alan Mountford, eds. 1978. English for specific purposes: a case study approach. London: Longman. 227 + xii pp. US\$10.75 paperback.

Ronald Mackay and Joe Darwin Palmer, eds. 1981. Languages for specific purposes: program design and evaluation. Rowley, Massachusetts: Newbury House Publishers. 126 + ix pp. US\$10.95 paperback.

Larry Selinker, Elaine Tarone, and Victor Hanzeli, eds. 1981. English for academic and technical purposes: studies in honor of Louis Trimble. Rowley, Massachusetts: Newbury House Publishers. 227 + xviii pp. US\$16.95 paperback.

These volumes are henceforth referred to as CSD, M & M, M & P, and STH, respectively.

2Traditional foreign-language-through-literature courses might be considered specific-purpose courses, but since they are regarded as focussing on the language itself, they are usually excluded from the domain of LSP.

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