Based on insights gained from developing the curriculum for Language Preparation for Employment in the Health Sciences and a review of the literature on ESP, this paper is intended to offer theoretical support for ESL instructors developing ESP curricula for ESL contexts.

Background Information and Statement of Purpose

In late 1999, I was asked to develop a content-based curriculum for a ten-week course for a select group of immigrants living in Ottawa, Canada. The course was held at Algonquin College of Applied Arts and Technology and was funded by the Language for Employment Related Needs Project (LERN). The curriculum consisted of two distinct phases: language delivery and employment awareness. Although the employment awareness phase (independently developed and delivered by Local Agencies Serving Immigrants) was an integral component of the program, the focus of this paper is on insights gained from the language-delivery phase.

Dudley Evans and St. John (1998) identify five key roles for the ESP practitioner:

- teacher
- course designer and materials provider
- collaborator
- researcher
- evaluator.

It is the role of ESP practitioner as course designer and materials provider that this paper addresses. The premise of this paper is based on David Nunan's observations about the teacher as a curriculum developer.

It seems fairly obvious that if teachers are to be the ones responsible for developing the curriculum, they need the time, the skills and the support to do so. Support may include curriculum models and guidelines and may include support from individuals acting in a curriculum advisory position. The provision of such support cannot be removed and must not be seen in isolation, from the curriculum (Nunan, 1987, p. 75).

Nunan recognized that issues of time, skills and support are key for teachers faced with the very real task of developing curricula. The intent of this paper is to provide the ESL instructor as ESP course designer and materials provider with theoretical support. This paper begins with a discussion of the origins of ESP. Some key notions about ESP are then addressed:

- absolute and variable characteristics
- types of ESP
- characteristics of ESP courses
- the meaning of the word 'special' in ESP

Key issues in ESP curriculum design are suggested: a) abilities required for successful communication in occupational settings; b) content language acquisition versus general language acquisition; c) heterogeneous versus homogenous learner group; and d) materials development.

The Origins of ESP

Certainly, a great deal about the origins of ESP could be written. Notably, there are three reasons common to the emergence of all ESP: the demands of a Brave New World, a revolution in linguistics, and focus on the learner (Hutchinson & Waters, 1987).

Hutchinson and Waters (1987) note that two key historical periods breathed life into ESP. First, the end of the Second World War brought with it an "... age of enormous and unprecedented expansion in scientific, technical and economic activity on an international scale..." for various reasons, most notably the economic power of the United States in the post-war world, the role [of international language] fell to English" (p. 6). Second, the Oil Crisis of the early 1970s resulted in Western money and knowledge flowing into the oil-rich countries. The language of this knowledge became English.
The general effect of all this development was to exert pressure on the language teaching profession to deliver the required goods. Whereas English had previously decided its own destiny, it now became subject to the wishes, needs and demands of people other than language teachers (Hutchinson & Waters, 1987, p.7).

The second key reason cited as having a tremendous impact on the emergence of ESP was a revolution in linguistics. Whereas traditional linguists set out to describe the features of language, revolutionary pioneers in linguistics began to focus on the ways in which language is used in real communication. Hutchinson and Waters (1987) point out that one significant discovery was in the ways that spoken and written English vary. In other words, given the particular context in which English is used, the variant of English will change. This idea was taken one step farther. If language in different situations varies, then tailoring language instruction to meet the needs of learners in specific contexts is also possible. Hence, in the late 1960s and the early 1970s there were many attempts to describe English for Science and Technology (EST). Hutchinson and Waters (1987) identify Ewer and Latorre, Swales, Selinker and Trimble as a few of the prominent descriptive EST pioneers.

The final reason Hutchinson and Waters (1987) cite as having influenced the emergence of ESP has less to do with linguistics and everything to do psychology. Rather than simply focus on the method of language delivery, more attention was given to the ways in which learners acquire language and the differences in the ways language is acquired. Learners were seen to employ different learning strategies, use different skills, enter with different learning schemata, and be motivated by different needs and interests. Therefore, focus on the learners' needs became equally paramount as the methods employed to disseminate linguistic knowledge. Designing specific courses to better meet these individual needs was a natural extension of this thinking. To this day, the catchword in ESL circles is learner-centered or learning-centered.

Key Notions About ESP

In this discussion, four key notions will be discussed. They are as follows: a) the distinctions between the absolute and variable characteristics of ESP, b) types of ESP, c) characteristics of ESP courses, and d) the meaning of the word 'special' in ESP.

Absolute and Variable Characteristics of ESP

Ten years later, theorists Dudley-Evans and St John (1998) modified Strevens' original definition of ESP to form their own. Let us begin with Strevens. He defined ESP by identifying its absolute and variable characteristics. Strevens' (1988) definition makes a distinction between four absolute and two variable characteristics:

I. Absolute characteristics:

ESP consists of English language teaching which is:

- designed to meet specified needs of the learner;
- related in content (i.e. in its themes and topics) to particular disciplines, occupations and activities;
- centred on the language appropriate to those activities in syntax, lexis, discourse, semantics, etc., and analysis of this discourse;
- in contrast with General English.

II. Variable characteristics:

ESP may be, but is not necessarily:

- restricted as to the language skills to be learned (e.g. reading only);
- not taught according to any pre-ordained methodology (pp.1-2).

Anthony (1997) notes that there has been considerable recent debate about what ESP means despite the fact that it is an approach which has been widely used over the last three decades. At a 1997 Japan Conference on ESP, Dudley-Evans offered a modified definition. The revised definition he and St. John postulate is as follows:

I. Absolute Characteristics

- ESP is defined to meet specific needs of the learner;
- ESP makes use of the underlying methodology and activities of the discipline it serves;
- ESP is centred on the language (grammar, lexis, register), skills, discourse and genres appropriate to these activities.

II. Variable Characteristics

- ESP may be related to or designed for specific disciplines;
- ESP may use, in specific teaching situations, a different methodology from that of general English;
- ESP is likely to be designed for adult learners, either at a tertiary level institution or in a professional work situation. It could, however, be for learners at secondary school level;
- ESP is generally designed for intermediate or advanced students;
Most ESP courses assume some basic knowledge of the language system, but it can be used with beginners (1998, pp. 4-5).

Dudley-Evans and St. John have removed the absolute characteristic that 'ESP is in contrast with General English' and added more variable characteristics. They assert that ESP is not necessarily related to a specific discipline. Furthermore, ESP is likely to be used with adult learners although it could be used with young adults in a secondary school setting.

As for a broader definition of ESP, Hutchinson and Waters (1987) theorize, "ESP is an approach to language teaching in which all decisions as to content and method are based on the learner's reason for learning" (p. 19). Anthony (1997) notes that, it is not clear where ESP courses end and general English courses begin; numerous non-specialist ESL instructors use an ESP approach in that their syllabi are based on analysis of learner needs and their own personal specialist knowledge of using English for real communication.

**Types of ESP**

David Carter (1983) identifies three types of ESP:
- English as a restricted language
- English for Academic and Occupational Purposes
- English with specific topics.

The language used by air traffic controllers or by waiters are examples of English as a restricted language. Mackay and Mountford (1978) clearly illustrate the difference between restricted language and language with this statement:

"... the language of international air-traffic control could be regarded as 'special', in the sense that the repertoire required by the controller is strictly limited and can be accurately determined situationally, as might be the linguistic needs of a dining-room waiter or air-hostess. However, such restricted repertoires are not languages, just as a tourist phrase book is not grammar. Knowing a restricted 'language' would not allow the speaker to communicate effectively in novel situation, or in contexts outside the vocational environment (pp. 4-5)."

The second type of ESP identified by Carter (1983) is English for Academic and Occupational Purposes. In the 'Tree of ELT' (Hutchinson & Waters, 1987), ESP is broken down into three branches: a) English for Science and Technology (EST), b) English for Business and Economics (EBE), and c) English for Social Studies (ESS). Each of these subject areas is further divided into two branches: English for Academic Purposes (EAP) and English for Occupational Purposes (EOP). An example of EOP for the EST branch is 'English for Technicians' whereas an example of EAP for the EST branch is 'English for Medical Studies'.

Hutchinson and Waters (1987) do note that there is not a clear-cut distinction between EAP and EOP: "- people can work and study simultaneously; it is also likely that in many cases the language learnt for immediate use in a study environment will be used later when the student takes up, or returns to, a job" (p. 16). Perhaps this explains Carter's rationale for categorizing EAP and EOP under the same type of ESP. It appears that Carter is implying that the end purpose of both EAP and EOP are one in the same: employment. However, despite the end purpose being identical, the means taken to achieve the end is very different indeed. I contend that EAP and EOP are different in terms of focus on Cummins' (1979) notions of cognitive academic proficiency versus basic interpersonal skills. This is examined in further detail below.

The third and final type of ESP identified by Carter (1983) is English with specific topics. Carter notes that it is only here where emphasis shifts from purpose to topic. This type of ESP is uniquely concerned with anticipated future English needs of, for example, scientists requiring English for postgraduate reading studies, attending conferences or working in foreign institutions. However, I argue that this is not a separate type of ESP. Rather it is an integral component of ESP courses or programs which focus on situational language. This situational language has been determined based on the interpretation of results from needs analysis of authentic language used in target workplace settings.

**Characteristics of ESP Courses**

The characteristics of ESP courses identified by Carter (1983) are discussed here. He states that there are three features common to ESP courses: a) authentic material, b) purpose-related orientation, and c) self-direction.

If we revisit Dudley-Evans' (1997) claim that ESP should be offered at an intermediate or
advanced level, use of authentic learning materials is entirely feasible. Closer examination of ESP materials will follow; suffice it to say at this juncture that use of authentic content materials, modified or unmodified in form, are indeed a feature of ESP, particularly in self-directed study and research tasks. For Language Preparation for Employment in the Health Sciences, a large component of the student evaluation was based on an independent study assignment in which the learners were required to investigate and present an area of interest. The students were encouraged to conduct research using a variety of different resources, including the Internet.

Purpose-related orientation refers to the simulation of communicative tasks required of the target setting. Carter (1983) cites student simulation of a conference, involving the preparation of papers, reading, notetaking, and writing. At Algonquin College, English for business courses have involved students in the design and presentation of a unique business venture, including market research, pamphlets and logo creation. The students have presented all final products to invited ESL classes during a poster presentation session. For our health science program, students attended a seminar on improving your listening skills. They practiced listening skills, such as listening with empathy, and then employed their newly acquired skills during a fieldtrip to a local community centre where they were partnered up with English-speaking residents.

Finally, self-direction is characteristic of ESP courses in that the "... point of including self-direction ... is that ESP is concerned with turning learners into users" (Carter, 1983, p. 134). In order for self-direction to occur, the learners must have a certain degree of freedom to decide when, what, and how they will study. Carter (1983) also adds that there must be a systematic attempt by teachers to teach the learners how to learn by teaching them about learning strategies. Is it necessary, though, to teach high-ability learners such as those enrolled in the health science program about learning strategies? I argue that it is not. Rather, what is essential for these learners is learning how to access information in a new culture.

The Meaning of the Word 'Special' in ESP

One simple clarification will be made here: special language and specialized aim are two entirely different notions. It was Perren (1974) who noted that confusion arises over these two notions. If we revisit Mackay and Mountford's restricted repertoire, we can better understand the idea of a special language. Mackay and Mountford (1978) state:

> The only practical way in which we can understand the notion of special language is as a restricted repertoire of words and expressions selected from the whole language because that restricted repertoire covers every requirement within a well-defined context, task or vocation (p. 4).

On the other hand, a specialized aim refers to the purpose for which learners learn a language, not the nature of the language they learn (Mackay & Mountford, 1978). Consequently, the focus of the word 'special' in ESP ought to be on the purpose for which learners learn and not on the specific jargon or registers they learn.

Key Issues in ESP Curriculum Design

In this section, key issues in ESP curriculum design for ESL contexts are examined. The issues explored here are a product of my professional experience developing the curriculum for Language Preparation for Employment in the Health Sciences. This experience has been supported with a review of the literature on ESP.

Abilities Required for Successful Communication in Occupational Settings

Cummins (1979) theorized a dichotomy between basic interpersonal communication skills (BICS) and cognitive academic language proficiency (CALP). The former refers to the language skills used in the everyday informal language used with friends, family and co-workers. The latter refers to a language proficiency required to make sense of and use academic language. Situations in which individuals use BICS are characterized by contexts that provide relatively easy access to meaning. However, CALP use occurs in contexts that offer fewer contextual clues.

After having developed and taught the curriculum for Language Preparation for Employment in the Health Sciences, I have reached the conclusion that there are three abilities necessary for successful communication in a professional target setting. I have added a third skill or ability to Cummins' theory in order to complete the ESP picture.

The first ability required in order to successfully communicate in an occupational setting is
the ability to use the particular jargon characteristic of that specific occupational context. The second is the ability to use a more generalized set of academic skills, such as conducting research and responding to memoranda. With the health science group, this was largely related to understanding a new culture. The third is the ability to use the language of everyday informal talk to communicate effectively, regardless of occupational context. Examples of this include chatting over coffee with a colleague or responding to an informal email message.

The task for the ESP developer is to ensure that all three of these abilities are integrated into and integrated in the curriculum. This is a difficult task due to the incredible amount of research required. Close collaboration between content experts and the curriculum developer was not possible during the development stages for the health science curriculum. In retrospect, the experience and knowledge of health science faculty would have lessened the workload in this area tremendously. Fortunately, there does exist a wealth of information on academic and general language skills. The trick involved in the interweaving process is to develop a model that best integrates the restricted repertoire with the academic and general for the learners in question.

In the case of Language Preparation for Employment in the Health Sciences, there were so many possible potential future occupational settings to research and I had to cope with limited development time. I simply opted to identify academic skills that were transferable to most health science occupational settings. This required an inventory of all possible health science occupations, identification of the past occupational experiences of the learners in the pilot program, and identification of academic language skills. All of this information was then cross-referenced with the general language objectives for the identified group of learners.

It is my opinion that because ESP requires comprehensive needs analysis and because the learning-centred curriculum is not static, it is impossible to expect that the developer be in a position to identify the perfect balance of the abilities noted above for any particular group of learners. In reality, a large part of this responsibility is that of the instructors; it is the instructors who are in the best position to identify changing learner needs and who are in the best position to ensure that all students receive a balanced diet of language.

### Content Language Acquisition Versus General Language Acquisition

When I first received the proposal for the health science pilot program, the ratio of content to language instruction had already been identified: 2 hours of content lecture for every 23 hours of language/content instruction. Given this starting point, one of the central questions that needed to be answered was how much time would be devoted to vocabulary and content knowledge acquisition, as opposed to the time spent developing general and academic language skills.

Although a tentative balance was drafted prior to classroom delivery, the balance shifted on a daily basis. In the end, it was determined by both instructors that more time need be allotted for pure content and more time need be created for team-taught activities. The final weekly breakdown of 25 hours consisted of the following:

- 8 hours of Integrated Language Learning (ESL instructor)
- 6 hours of Health Science Lectures (content instructor)
- 4 hours of Workplace Communication (jointly facilitated)
- 3 hours of Medical terminology (content instructor)
- 2 hours of Pathophysiology (content instructor)
- 2 hours of Applied Computer Skills (ESL instructor)

The first thing that is apparent from this breakdown, is that time devoted to developing general language and academic skills far outweighs the time devoted to the acquisition of content knowledge. However, it was recommended that the content instructor be present for a considerable more amount of time; it was observed that there was such an overlap between content knowledge, academic proficiency, and general language that we could better interweave many of the activities as a team.

The learners indicated that they desired more opportunity to interact with the content instructor, in addition to attending the old-style lecture format. Indeed, both instructors noted that the students were highly motivated to attend the content lectures and yet additional support from the ESL instructor was required because, in order to meet the learners’ needs, we could not teach the restricted repertoire in isolation. What is more, it was highly unreasonable to assume that the content instructor would take on the role of ESL instructor.
Finally, it was observed that the majority of the students with post-secondary training in the health sciences possessed a basic knowledge of Greco-Latino terminology. Consequently, we determined that less time would be devoted to learning terminology in order to follow the content lectures. Most of the students could already recognize meaning, but not produce it. It was determined that more time should be allotted for work on pronunciation and learning the spelling of health science terminology. Moreover, much more time would be spent on communication for the workplace; in this way, they students would be afforded ample opportunity to integrate and practice the restricted repertoire acquired in content lectures and the everyday language acquired in the language classes.

**Heterogeneous Learner Group Versus Homogeneous Learner Group**

There are a number of variables which characterize a heterogeneous learner group. I argue that variations in language level, prior education and work experience can be accommodated only to a certain extent. Minimum entrance standards must be established in the areas of language level, motivation, and prior education and experience. Most importantly, these standards must be strictly enforced at the time of placement.

Due to the limited time frame for the development of the health science pilot program curriculum and the fact that the program was scheduled to begin in the middle of the academic term, the minimum general language entrance requirement was dropped from high to low intermediate in order to generate a large enough pool of suitable candidates. Although no pre or post-test was to be administered by evaluation team, I was required to recruit twice the number of students to be admitted to the program: 20 students would be in the pilot group and 20 would be in the control group. In the end, 16 students formed each group. The result was that there were some genuinely intermediate students mixed in with a majority of high intermediate, and a few advanced students.

Based on observations of a four-week English for Business course, Yogman and Kaylani (1996) conclude that there appears to be a minimum proficiency level that is required for students to participate in predominately content-related activities. This supports my finding that those students who were struggling to catch up with general language proficiency simply found the content activities to be overwhelming.

One student in the health science program commented that she had to learn both the language and the content at the time. This particular student was at such a disadvantage because, whereas the other students were doctors and dentists, she had no prior education or work experience in health science. Another student was an experienced doctor, but possessed a very low level of language proficiency. Either case would have been frustrating for anyone. One strategy we began to employ was to have the intermediate students focus on developing their listening skills during the content lecture. Those students without the background knowledge, who possessed the language skills, were to ask for clarification from their peers or instructors. The advanced students were encouraged to record as much detail as possible, carry out supplemental reading that pertained to the lecture topics and to assist their peers whenever possible.

**Materials Development**

Do ESP textbooks really exist? This is central question Johns (1990) addresses. One of the core dilemmas he presents is that "ESP teachers find themselves in a situation where they are expected to produce a course that exactly matches the needs of a group of learners, but are expected to do so with no, or very limited, preparation time" (Johns, 1990, p. 91).

In the real world, many ESL instructors/ESP developers are not provided with ample time for needs analysis, materials research and materials development. There are many texts which claim to meet the needs of ESP courses. Johns (1990) comments that no one ESP text can live up to its name. He suggests that the only real solution is that a resource bank of pooled materials be made available to all ESP instructors (Johns, 1990). The only difference between this resource bank and the one that is available in every educational setting -- teachers’ filing cabinets -- is that this one is to include cross-indexed doable, workable content-based (amongst other) resources.

It is my experience that this suggestion is not doable. If teachers are so pressed for time, will they have the time to submit and cross-index resources? Rather, I believe that there is value in all texts - some more than others. Familiarizing oneself with useful instructional materials is part of growing as a teacher, regardless of the nature of purpose for learning. Given that ESP is an approach and not a subject to be taught, curricular materials will
unavoidably be pieced together, some borrowed and others designed specially. Resources will include authentic materials, ESL materials, ESP materials, and teacher-generated materials.

Note that an excellent point of departure for novice ESP curriculum developers is with lists of ESL publishers which have been made publicly available on-line. Browsing publishers’ sites takes a few minutes, review copies can be requested immediately and copies can be sent express.

Concluding Remarks

This paper has discussed the origins of ESP, addressed key notions about ESP and examined issues in ESP curriculum design. The content of the paper was determined by a need identified based on my professional experience as an ESL instructor designing and delivering the content-based language program - Language Preparation for Employment in the Health Sciences. These issues, where possible, have been supported by current and pertinent academic literature. It is my sincerest hope that these observations will lend insight into the challenges facing the ESL instructor acting as ESP curriculum developer.

Selected References

English for specific purposes (ESP) is a subset of English as a second or foreign language. It usually refers to teaching the English language to university students or people already in employment, with reference to the particular vocabulary and skills they need. As with any language taught for specific purposes, a given course of ESP will focus on one occupation or profession, such as Technical English, Scientific English, English for medical professionals, English for waiters, English for tourism.