The Journal of Applied Linguistics Vol. 1, No. 3 Autumn 2008

# The Importance of Materials Design in ESP and EST

Vida Fathi Bonabi Islamic Azad University-Urmia Branch

University students in Iran need English to reinforce their specialist knowledge in order to meet their academic needs and not to be isolated from technological advances. The architecture students at the university level in Iran are no exception. Bearing this in mind, the present research intends to address itself to the following questions: 1) what are the problems in materials design in ESP courses in general and architecture students in particular? And 2) what are possible solutions to the problems identified? In an effort to pave the road for preparing a textbook for architecture students in Iran, we have analyzed the textbook presently used by architecture students at Islamic Azad University, Tabriz branch. To do this, we prepared two questionnaires to be answered by both the students and teachers about the content of the textbook under discussion. On the basis of their responses and also the researchers' comments on the issue, we have tried to discuss the shortcomings therein, and to give possible solutions.

Keywords: ESP, Materials Design, ESP Textbooks for Architecture Students

The name "English for Special Purposes" (ESP) is given to the kind of course which can be matched to the specific needs and purposes of the learner. The linguistic factor has tended to dominate the development of ESP with an emphasis on the analysis of the nature of specific varieties of language use. Probably, this has been a necessary stage, but there is a need for a wider view. ESP should properly be seen not as any particular language product but as an approach to language teaching which is directed by specific and apparent reasons for learning (Hutchinson & Waters, 1987). This means that ESP teachers are concerned more with designing appropriate courses for various groups of learners (ibid). According to Hutchinson & Waters, there are three factors affecting ESP course design: Language descriptions, Learning theories, Needs analysis. The interdependence of these factors in the course design process is very important. The course design must bring the learner into play at all stages of the design process. Gatehouse (2001) believes that "it is the instructors who are in the best position to ensure that all students receive a balanced diet of language." (p.5)

The relationship might be presented like this (Hutchinson & Waters, 1987):



One of the branches of ESP is EAP (English for Academic Purposes) in which there is also another branch, EST (English for science and technology) which is our concern in this research since our focus is on architecture. According to Widdowson (1978), scientific discourse is "a universal mode of communicating, or universal rhetoric, which is realized by different scientific texts in different languages by the process of textualization." (p.52) Widdowson maintains that if we conceive of EST as a variety of discourse textualized in English, in contrast to other textualizations in German, French, Russian, and so on, then the case is that the learner has a knowledge of the discourse which corresponds to his stage of learning in the area of science and technology concerned, and he can use that knowledge as a base for learning the particular textualization of this discoursal features in English.

In ESP one of the most important tasks is materials writing. A text is a message from a writer to an assumed reader. In writing the text the writer will make a judgment as to the knowledge the assumed reader will bring to the text and the use the reader will make of it (Candlin, 1991). The text, therefore, assumes a value in the context of that knowledge and that use. In other words, a text can only be truly authentic in the context for which it was originally written. (ibid)

One of the important issues in looking at the role of materials in ESP is that of authenticity. Authenticity is a key concept within the communicative approach. We must consider whether the goals that we set are authentic with regard to students' real-world roles, and whether the tasks or activities that take place in the learning situation are authentic (Widdowson, 1978). If we visit Dudley-Evans' (1998) claim that ESP should be offered at an intermediate or advanced level, the use of authentic learning materials is entirely feasible. We should not look for some abstract concept of "authenticity", but rather, see the text as part of teaching/learning process and examine the suitability of the text for learning purpose. In the light of this, factors such as time available, awareness of the students' interests and motivation, relevance and appropriacy will play a significant role in selecting ESP teaching materials (Widdowson, 1984). We should try to establish an awareness of students' needs based on authentic materials to actively involve the students in course design and materials gathering (Basturkmen, 2007). Educators are increasingly faced with the problem of how English teaching programs can most effectively meet the challenge created by industrialization and technological innovation (Trimble, 1979). This has meant not only the planning of new type of courses and the preparation of materials suited to the particular language requirements of those engaged in science, but also a re-examination of English language teaching at all levels to ensure that language teaching programs meet the demands of society (ibid).

Educators have also recognized that the kinds of materials required in the field of science are different from those needed in other fields such as literature and general English. As McDonough (1984) suggests: "ESP (English for specific purposes), closely matching teaching content to learner requirements, seems to be the ideal answer in language teaching to the charge of educational irrelevance and inappropriacy." (p.i) In this regard, attempts have been made to produce teaching materials to meet the language requirements of science students. However, it seems that most available materials are unsatisfactory since they focus principally on vocabulary and syntax and disregard the actual needs of the students; that is, the discourse of scientific writings (Trimble, 1985).

Another important point is that ESP, like any other form of language teaching, is primarily concerned with learning in general as in Harding's words (2007) "a series of dark narrow paths in a forest" (p.1). Yet, it seems that in its development up to now, ESP has paid little attention to the question of how people learn, focusing instead on the question of what people learn. It has, in other words, been language-centered in its approach (Strevens, 1977). We do not want to dismiss this language-centered approach. It has provided some very important insights into the nature of specific- language needs. However, it seems that, if it is to have any real and lasting value, ESP must be founded in the first place on sound principles of learning, and secondly emphasize the learner as the negotiator of meaning. Fathi

In the development of materials for EST, we should consider theory and practice as the same single activity, i.e., reconciliation between the operational and theoretical views (Widdowson, 1978). Widdowson proposes a view which mediates between teaching and research and which brings about developments in EST within the scope of practical methodology. It involves a translation procedure which is a three-cornered operation. In Widdowson's view, the use of non-verbal devices (i.e., the universally conventionalized expression of the underlying communicative systems of science) enables us to relate three ways of expressing the same basic concepts and procedures. So we have the following situation:



Here we have two situations:

When the non-verbal device is given with the instance of English use, the provision of the translation is essentially a comprehension task (Widdowson, 1978). When the non-verbal device is given with the instance of L1 use, the provision of the translation is essentially a composition task (ibid).

Students studying at the university level in Iran need English as a medium to reinforce their knowledge, and to extract new information from scientific books and journals in their specialized fields. They need reading materials which can help them meet their academic requirements, and can satisfy their interests towards enriching their English. There is a need for good teaching materials which will prepare the students for the situations they are intended for, and make the teacher's job as interesting and rewarding as possible.

As a step toward designing good teaching materials, it is essential to evaluate the existing materials. Therefore, one purpose of this study is to evaluate the textbook "English for the Students of Engineering" (Bidahari, et al, 1990), used by architecture students at Azad University of Tabriz.

The present study is also designed to investigate the problems involved in the textbook and to suggest the possible solutions.

## Method and Procedure

One important factor in designing EST materials is to know the salient features of scientific and technical texts. From the discourse point of view, there are some specific features and characteristics in scientific English that make it different from other kinds.

In order to prove this, we did a text analysis as an example. This kind of knowledge helps us to compose useful exercises for different technical materials. We chose three texts to analyze: an architectural text, a medical text, and an ordinary text.

Although our focus was on architecture, we selected an ordinary text to show the differences between technical and non-technical texts, and a medical text to show the differences between architectural and non- architectural texts. Since our work didn't allow us to analyze all the scientific features in these texts, we selected only three criterion features, i.e., passive constructions, definite articles, and demonstratives such as *this, these, those*. The fact that we decided on these three features is that, according to the research studies in the field (e.g. Strevens, 1972; Trimble, 1985; Hitchcock, 1979), they are more characteristic of scientific/technical English than other features. This text analysis is openended. Everyone is free to examine and find some other features of architectural texts but it is beyond the scope of present study to take on such a grave research task.

As a step toward designing good teaching materials, it is essential to evaluate the existing materials. They can also save a lot of duplication of effort by possibly revealing existing materials that can meet all or part of our teaching materials needs.

In this regard," English for the Students of Engineering" a textbook developed by Bidahari, et al (1990) under the aegis of SAMT was chosen as a sample work to be evaluated. It should be

noted that this textbook is taught at different technical courses such as architecture, civil engineering, tele-communication engineering, etc. in Azad University of Tabriz. We prepared two questionnaires (included in the appendix) to be answered by both the students and the teachers about the content of the textbook under discussion. Seventy-seven students from different courses of engineering at Azad University of Tabriz participated in this research. They had been chosen randomly. Also, ten ESP teachers from Azad University of Tabriz were requested to answer the questions in the questionnaires about the content of the textbook under discussion.

## Results

The Results of Text Analysis

There were three features to be analyzed in this part. The first one was passive constructions. The results are shown in the following table:

Table 1

Voice	Passive	Active	Total Verb	Running
Text				Words
Architectural	22	··· 6	··· 28	
	%6.69	%1.82	%8.51	329
Medical	17	14		
	%5.25	%4.32	% 9.57	324
Ordinary		18		
	%0.63	%5.66	% 6.29	318

The second feature is articles. The following table represents the results:

Article Text	the	a/an	Running words
Architectural	21 %6.39	15 %4.55	329
Medical	34 %10.50	4 %1.23	324
Ordinary	13 %4.09	15 %4.71	318

Table 2

It is said that one of the characteristics of scientific and technical texts is demonstratives. We examined them in the three sample texts. The following table shows the results achieved:

Table 3

Demon	This,	Running words
Text	these, those	
Architectural	%2.43 8	329
Medical	6 %1.85	324
Ordinary	0	318

## The Results of Questionnaires

Since we have prepared two kinds of questionnaires, one for the students and the other for the teachers, we have to look at them separately.

The following table indicates the responses of the architecture students and non architecture students to the questions in the questionnaires: (They answered the questions with yes or no)

### Fathi

Tał	ole	4
-----	-----	---

	Positive answer	Negative answer
1	% 100	N res cut cal
2	% 32.5	% 67.5
4	% 76	% 24
6	% 55	% 45
8	% 33	% 67
9	% 57.5	% 42.5
11	% 94	% 6
12	% 34.5	% 65.5
13	% 69	% 31

The following table shows the summary of all responses given by the teachers in the questionnaires:

Table 5

	Positive answer	Negative answer
1	% 100	
2	% 20	% 80
3	% 60	% 40
4	% 70	% 30
5	% 20	% 80
7	% 20	% 80
9	% 50	% 50
11		% 100
12	% 60	% 40

Considering the results of the text analysis, we can find out that the passive verbs are more common in the architectural text than in others, and that the number of passive verbs in both architectural and medical texts far outweighs the active ones, whereas in ordinary text, active verbs are more than passive verbs. It is easy to interpret the results achieved here as in non-scientific texts the agent is far more important than the action performed (Trimble, 1985).

Also, in the architectural text "the" is used more commonly than in the ordinary text, but in the ordinary text "a/an" is more common than "the". Maybe the reason for this is that in the scientific texts, we are dealing with some given/known phenomena.

By referring to the results in Table 3, we find out that, in the architectural and medical texts, "*this, these, that, those*" are frequently used, but in the ordinary text presented here none of these is used. This may be due to intention of the writer of the scientific texts to make the meaning easy and clear to understand.

In order to evaluate and interpret the results of the questionnaires about the book under discussion, we begin to analyze the results in details to find if this textbook meets the students' academic needs or not.

## The Analysis of the Students' Responses

Most of the students had the same idea that the texts in the textbook weren't so useful for them. They believed that the useless materials and shortage of time were the main reasons for their not being successful in learning English. Also, they found it useful to practice pronunciation, but the way the pronunciation was presented in this book was unproductive and time-consuming. The architecture students believed that more texts related to architecture should be included in the book, and that in these texts there should be more technical terms related to architecture. The non-architecture students who didn't find the texts interesting had the same idea; they wanted more subject-specific materials. In this textbook, teaching grammar is mostly in the traditional way, i.e., through decontextualized sentences, which was not welcomed by the students. Some of the students believed that the way of presenting vocabulary in the textbook was not suitable. Their suggestion was that the acquisition of word meaning was best possible when the student was exposed to interesting genuine English texts in their fields of study. They also believed that nonverbal devices are very important in understanding the text. On the whole, most of the students had the same idea that the texts in the textbook covered all branches of engineering, and that was a disadvantage. They said that all the texts of the book should be related to their courses and that there should be more technical terms related to each course.

### The Analysis of the Teachers' Responses

The results show that most of the teachers were not satisfied with the texts of the book. They suggested that the contents of the texts should be richer than this with more relevant technical terms. Most of the teachers believed that due to the shortage of time and the course objective, which is reading comprehension, the pronunciation practice part in the textbook seems rather timeconsuming and unproductive. They said that it should be used in a different way. They also argued that teaching grammar through decontextualized sentences was not useful for the students. Grammar should be presented in context. Most of them suggested that vocabulary should be presented in a way to encourage students to guess the meanings of unfamiliar words and to encourage them to make better use of reading strategies. They argued that since the aim of ESP courses in Iran is reading comprehension not translation, direct translation may not be very helpful for the students to improve their reading strategies. On the whole, they believed that the architecture students should have a textbook special for themselves. According to the answers given, only two or three lessons in the book are on architecture, and it is not enough for them to learn English. Also, the exercises related to each part are not considered so productive.

The analysis of different parts of the textbook on the basis of the students' and teachers' responses, and possible solutions I. pre-reading

### A: Pronunciation Practice

This unit begins with pronunciation practice. As we mentioned before, the answers given by the students and ESP teachers (who had participated in the study) to the questions No.4 and No.5 were different. Some of them agreed, and some of them disagreed with the pronunciation practice. As a solution to this dilemma, and in order to satisfy both sides, it is recommended that selective new words for pronunciation be included in the vocabulary list. This is to say that only words whose pronunciation is difficult for the students should be practiced in the class.

### B and C: Word Study

These parts of the unit deal with vocabulary definition and the exemplification of the words and concepts in selective sentences. We have reviewed the students' and teachers' ideas about this part (question No.9 in the students' questionnaires and No.7 & 8 in the teachers' questionnaires). In this regard, the following solutions are offered:

1. To make the students aware of the number of clues which are available to them in the context when they fail to comprehend the text because of unfamiliar words, we can emphasize the redundancy of language by demonstrating the types of contexts which can provide the meaning of an unfamiliar word:

Synonymy in opposition:

Example: Our uncle was a **nomad**, an incurable wanderer who never could stay in one place.

Antonym:

Example: While the aunt loved Mary deeply, she absolutely **despised** her twin brother Smarty.

Cause and effect:

Example: By surrounding the protesters with armed policemen, and by arresting the leaders of the movement, the rebellion was effectively **quashed**.

Association between an object and its purpose or use:

Example: The scientist removed the **treatise** from the shelf and began to read it.

The above examples are taken from a research by Honarvar (1994).

2. We can include the clues in the text itself:

Example: Any building consists of some components that are related to each other, or interconnected components.

3. We may choose a text and show the students how it may be reworded in different terms and structures.

Example:

Text A

Making ropes is one of the oldest trades in the world. <u>We know</u> that people made ropes more than 5000 years ago, because we have found pieces of rope in very old Egyptian Tombs. <u>They made</u> some of these from the hair of camels. They made others from twisted grass.....

In <u>the very old days, people made rope by hand, but, today,</u> <u>machines make it.</u> In <u>very poor</u> countries today, <u>people still make</u> <u>rope as they made it in the very old days.</u>

(From "Beginning Scientific English", Irmak, 1975)

## Text B

<u>Rope-making</u> is one of the oldest trades in the world. <u>It is</u> <u>known that rope was made over</u> 5000 years ago, because pieces of rope <u>have been discovered</u> in <u>ancient</u> Egyptian Tombs. <u>Some of</u> <u>these were made</u> from <u>camel-hair</u>, and <u>others were made</u> from twisted grass.....

In <u>ancient times, rope was made</u> by hand; <u>nowadays, it is made</u> <u>by machine.</u> In <u>under-developed</u> countries\_today, <u>rope is still made</u> <u>as it was in ancient times.</u>(Irmak,1975)

4. While introducing vocabulary, we should also give the value of the lexical items, that is, the student should be required to use the given meaning directly instead of that word in a given sentence, and, as far as possible, avoid giving the signification of lexical items.

Example: The dentist should **detect** no sign of decay in his teeth.

detect: find; discovervalueHe dived into the river and rescued the drowning child.dive: go head first into watersignification

(From "English for the students of sciences", Akhavan, 1995)

5- We may introduce unfamiliar words in several sentences, each providing a clear context, which has been proved to be successful.

In order to make the first two parts in the lesson shorter, we can combine pronunciation practice and pre-reading vocabulary parts, i.e., we can omit the pronunciation practice part, and write the pronunciation of each vocabulary in front of the one which is introduced in pre-reading vocabulary part. For the ease of pronunciation, we should have a pronunciation key. To do this, we can write the phonetic symbols with examples at the bottom of the page. For example:

detect (dItekt): find; discover The dentist should **detect** no sign of decay in his teeth. extent (Ikstent): degree; amount

A solid usually resists compression to a great extent.

The pronunciation symbols and some keywords should be given at the bottom of the page.

It is better to make this pre-reading part as short as possible. Students can learn the meanings of words better from the context and exercises than from the isolated sentences.

#### D: Grammatical Points

In this part a grammatical point is discussed and explained by giving some examples from the text. Some of the students and most of the teachers who participated in the study believed that it was not necessary to explain a grammatical point explicitly. One of the best ways is to learn grammar implicitly within the text. Grammar should be learned within the context, not by explaining directly the grammatical point. So it seems better to omit this part. (We shall discuss grammatical exercises in part III).

## II. Reading

Most of the students had two complaints: first, they argued that the passages were not rich enough in content. Second, the students urgently demanded more subject-specific texts with relevant technical terms.(questions No.6 & 7 in the students' questionnaires and No. 3 in the teachers' questionnaires ) Coping with this situation will be greatly eased by, first of all, trying to understand why learners demand such materials. In my discussion, with the students we reached the conclusion that the reasons for having a subject-specific approach rest almost entirely on two affective factors generated by the learners themselves:

a) Face validity: subject-specific materials look relevant.

b) Familiarity: If learners have got used to working with genuine texts in the ESP classroom, they will be less apprehensive and anxious about tackling them in the target situation.

#### III. Homework

This part includes vocabulary practice, grammar exercises, a free reading and a translation part. Vocabulary has just been discussed. Of course, the exercises related to vocabulary practice can be more creative. For example, we can give some expressions and ask the students to use them, by replacing the expressions or words of similar meanings in the text. Another example can be like this: we can draw a diagram or a picture of a building or an instrument,... and then ask the students to label it by using the words in the text. We have reviewed the students' and teachers' ideas about grammatical points previously.( questions No. 8 in the students' questionnaires and No. 5 & 6 in the teachers' questionnaires) Here, we may add that grammatical points almost always deal with units no longer than individual sentences. This is not in itself intended as a criticism, since we believe that the correct manipulation of grammatical structures is a vital skill for many learners. However, it is not sufficient. The grammatical point which has been illustrated through isolated sentences had better be introduced in a meaningful cohesive context. Thus, the solution is to offer the grammatical points in the context so that the students

can understand the value of such items. Note that the grammatical points should be restricted mostly to important features of scientific and technical English. Suppose we wish to present active/passive constructions, we may adopt the following procedures:

First look at the text and try to find the passive verbs presented in the text. Then write down the passive versions of the following active sentences. Then combine the passive sentences, following the clues in the box:

Active: We choose a building site Passive: A building site..... Active: We prepare the foundation plans Passive: The foundation plans..... Active: We should carry out an investigation Passive: An investigation.....

Before a building site ....., or at least, before the foundation plans ....., an investigation .....

Free Reading

This part is the same in nature and format as in the main "Reading" text. It is probably used to reinforce the concepts and ideas presented in the main text. Therefore, what has been said about the main "Reading" can be applied to "Free Reading" as well.

However, we should pay attention to one point: since this part is entitled "Reading Comprehension Exercises" and the course objective is also reading comprehension, it seems necessary to have more different comprehension exercises. For example, we can use some non-verbal devices; we may ask students to label a given diagram or picture, or draw a diagram or picture of their own according to the reading part which is a description of something like a mechanical device, a building, an experiment and so on. Here, we can also add a composition task in which they use the lexical items and grammatical points they have learned in the lesson; we might give them a diagram or a picture which represents the same kind of information as the diagram that the

#### Fathi

students have already completed and require them to write a descriptive text based on that diagram.

Example: Label the following formulas:

1- Iron combines with Sulphur to form Ferrous Sulphide.

.....+ ......

2- Magnesium combines with Oxygen to form Magnesium Oxide.

.....+ ......

Now write the description for the following formulae: Zn + H2SO4 ZnSO4 + H2

Zinc combines .....

(From "Explorations in Applied Linguistics", Widdowson, 1978)

Another kind of comprehension questions can be like this:

We might give them two halves of sentences and require them to connect them in correct form.

Example: Connect the two halves of sentences to make true statements:

The heart pumps blood to the lungs.
<i>The veins carry blood from the heart to the body tissue.</i>
The auricles is a kind of pump.
The right ventricle carry blood to the heart.
The lungs is pumped from the lungs back to the heart.
The fresh blood pump blood into ventricles.
The left side of the heart supply the blood with Oxygen.
The arteries pumps the fresh blood into the arteries.
(From "English for Specific Purposes", Hutchinson & Waters,
(96)

1986)

## **Translation**

The last section of each lesson unit includes "translation". The students should translate a passage into Farsi and then write the Farsi equivalents of some technical terms used in the same text. We previously quoted the teachers' views about translation (questions No. 9 & 10). Most of the students also had the same idea. Some of them thought that the tasks related to translation were helpful for them, but some of them believed that the exercises were time-consuming. Here, as we mentioned earlier, it is possible to approach translation (following Widdowson, 1978) as a threecornered operation. By this we mean the use of non-verbal representation (formulae, diagram, charts, etc) as a way of mediating a transition from one discourse to another.

Example: Make simple statements in your own language based on the statements in English:

Statements in L1	statements in English			
Си	Copper is an element.			
<i>Cu; Cl</i>	Copper and Chlorine	are		
elements.				
Now write statements in L1 and complete English statements:				
Fe	Iron			
Fe, Pb		are		

(From "Explorations in Applied Linguistics", Widdowson, 1978)

In architecture we can use non-verbal devices such as pictures and plans of buildings and structures.

Example: According to the picture write words in your own language for each number based on English words:



Words in L1	Words in English
	1- Stairs
	2- Handrail
	3- Baluster
	4- Newel post
	5- Face stringer
	6- Tread return

The purpose of such an activity is to make the learner conceive of the foreign language in the same way as he conceives of his own language and to use it in the same way as a communicative activity.

Now by taking into account the problems and the suggested solutions, and in the light of theoretical issues concerning ESP and EST we can propose a textbook for architecture students with lessons in the following forms:

There can be some pre-reading questions. Students should read the text and without knowing the meanings of a few unfamiliar words, they should answer the questions. This will improve their reading comprehension. Reading comprehension is not knowing the meaning of every word in the text; it is to know the main idea of the text. After the "Reading" part, there can be vocabulary practice, some exercises related to reading comprehension and grammatical points. As previously mentioned, it is better for the students to find the meanings of unfamiliar words in the context. Grammar should also be taught within the context, not by explaining directly and in isolated sentences. The exercises should be about some features characteristic of scientific and technical texts. At the end, there can be a translation exercise. As stated before, following Widdowson (1978), we can use a three-cornered translation. By using a non-verbal device (like a picture), we can ask the students to write Persian equivalents for English statements. Non-verbal devices are universally conventionalized expressions of the underlying communicative systems of science (Widdowson, 1978). They can act as a way of mediating a transition from one discourse to another. This will make the learner to think of the foreign language in the same way as he thinks of his own language, and to use it in the same way as a communicative activity.

## Conclusion

In this study, we tried to review some important aspects of ESP, focusing mainly on ESP materials design. We make no claim that we have resolved all the problems affecting ESP courses, but merely attempted to bring some of the problems (encountered by architecture students) into prominence. ESP is a program, born by time shortage, in which the special and clearly defined needs of learners are taken into account. ESP learner sees English as a means to the pursuit of academic and vocational goals and not as an end in itself. He needs scientific English in order to avoid being isolated from scientific advances made in other countries. Therefore, it is important to balance all factors involved in the teaching-learning process. A view of language as communication implies teaching materials which promotes participation by the learner in the process of interpreting meanings. Moreover, the extension of "special purpose language" beyond registerial differences of lexis and structure towards universal ideas of concepts and reasoning may suggest that much emphasized distinction between ESP and general ELT (English Language Teaching) are inappropriate and counter-productive.

This kind of approach to ESP is also correct in EST, which was our concern in this research, by considering the learner as the main figure in the class, something that materials' writers pay less attention to nowadays.

While discussing various aspects of ESP and EST and materials writing, we brought to light the pressing need for preparing an appropriate and independent textbook for architecture students at the college level in Iran. Bearing this in mind, we analyzed the textbook used by architecture students at Azad University of Tabriz for highlighting the problems involved, and suggested some solutions.

It is hoped that this study will prove some insights to the

student teachers who will be entrusted with the task of designing more useful teaching materials for architecture students.

#### The Author

**Vida Fathi Bonabi** is a lecturer at Islamic Azad University, Urmia Branch. She has been the Head of the Department of English since 2007. Her research interests include ESP, Language Skills especially reading, and Materials Design as well as Linguistics and Discourse Analysis.

#### References

- Akhavan, B., Behgam, P., Faghih, E., Haghani, M.(1995). *English* for the students of sciences. Tehran: SAMT publication.
- Bartony, N. & Chernov, I. (1989). *Architectural engineering*. Moscow: MIR Publishers.
- Basturkmen, H. (2007). *Ideas and options in English for specific purposes*. Mahwah,NJ: Lawrence Erlbaum Associates.
- Bidahari, P., Fallahi, M., Haghani, M. & Maftoon, P.(1990). *English for the students of engineering*. Tehran: SAMT publications.
- Candlin, C.N. (1991). *Preface to Robinson, ESP today*. NJ: Prentice Hall, Inc.
- Cunninmgham, F., MacDonald, P. & Grant, N. (1931). *Williams Obstetrics*. NJ: Prentice Hall, Inc.
- Dudley-Evans, T., & St John, M. (1998). *Developments in ESP: A multi-disciplinary approach*. Cambridge: Cambridge University Press.
- Gatehouse, K. (2001). Key issues in ESP development. TESOL Journal, 7(10).
- Gordon, F. (1989). A Preface to the Bronte. London: Longman.
- Harding, K. (2007). *English for specific purposes*. Oxford: Oxford University Press.

- Honarvar, A. (1994). English for science students designing a syllabus and writing materials with reference to chemistry. A M.A. thesis, Tabriz University.
- Hutchinson, T. & A. Waters (1987). *English for specific purposes: A learning-centered approach*. Cambridge: Cambridge University Press.
- McDonough, Jo. (1984). *ESP in perspective: A practical guide*. London: Collins ELT.
- Orr, T. (2002). *English for specific purposes*. Alexandria, VA: TESOL Press.
- Strevens, P. (1972). *Alternative to Daffodil's*. C.I.L.T Reports and Papers, II. London: CILT.
- Strevens, P. (1977). Special-purpose language learning: A perspective, A survey article in Language Teaching and Linguistics. Cambridge: Cambridge University Press.
- Trimble, R.M. & Trimble, L. & Drobnic, K. (1979). *English for specific purposes: Science and technology*. Oregon: Oregon State University.
- Trimble, L. (1985). *EST: A discourse approach*. Cambridge: Cambridge University Press.
- Widdowson, H.G. (1978). *Teaching language as communication*. Oxford: Oxford University Press.
- Widdowson, H.G. (1978). *Explorations in applied linguistics*. Oxford: Oxford University Press.
- Widdowson, H.G. (1984). *Explorations in applied linguistics*. Oxford: Oxford University Press.

Appendix: The students and the teachers' questionnaires

خير

به نام خدا

دانشگاه ر شته تحصيلي نام و نام خانوادگي : دانشجوي عزيز: 1- آيا كتاب "انگليسي براي دانشجويان مهندسي" در رشته شما تدريس مي شود؟ بلى

# Fathi

با

61