Assessing Students' Needs in an ESP Context: The Case of Architecture Students

Ouafa Ouarniki

Ziane Achour University of Djelfa (Algeria)

,ouafa.ouarniki@univ-djelfa.dz

ABSTRACT

The aim of this study is to identify and analyze First year Master students of architecture needs and accordingly design lectures that would hopefully better meet their expectations. Thus, a needs analysis questionnaire and focus group discussion were conducted with the targeted population to fulfill the purpose of the research. Through using suitable statistical analysis, it has been found that an ESP course focusing on speaking and reading skills should be developed. Besides, this ESP course should include oral presentations, technical and semi-technical vocabulary, grammar activities and topics relevant to students' area of specialization. Hence, the newly designed ESP course would enable students learn relevant specific language that would serve to prepare them adequately for their academic year and future career in their area of specialization. Finally, the study emphasizes the significance of implementing need analysis as an essential and crucial step in designing distinct types of courses, curricula and syllabuses.

Keywords: ESP, students' needs, needs analysis, course design.

INTRODUCTION

English for Specific Purposes has become a typical approach to English language teaching and learning in tertiary education. The reason for this is that ESP learners are usually adults who have already mastered some knowledge of English and are learning the language needed in a particular domain, occupation, or vocation in order to acquire professional skills and perform particular job-related functions. Indeed, Hutchinson and Waters (1992) point out that learners know specifically why they are learning a language and it is the awareness of the need that distinguishes ESP from English for General Purposes (EGP). Thus, students' needs analysis is a key point in the development of any ESP course as this approach of language learning is students centered.

In fact, Needs analysis was introduced into language teaching through the ESP movement. From the 1960s', the demand for specialized language programs grew and applied linguists began to employ needs analysis procedures in language teaching and materials preparation (Richards, 2002). Thus, to design ESP materials in particular or when talking about ESP in general, needs analysis seems mandatory to exist. However, what was observed at the department of architecture, at Biskra University, is that ESP practitioners do not conduct Needs assessment as a starting point of their course design and rely entirely either on providing learners with lists of technical vocabulary to be memorized or supplying them with grammatical structures in isolation. Unfortunately, ESP courses in such a department are always put "in the same basket" and labeled as programs for "Teaching English". However, there are crucial parameters that ought to be taken into consideration when designing syllabuses such as the nature of language to be taught and used, the learners, the setting and the objectives to be realized. Therefore, this research will be of great benefit for ESP teachers as it would enable them to be aware of Needs Analysis importance in the field of ESP; conduct needs analysis and design courses that would better meet their student's needs .

2. Definitions of Needs Analysis

Needs analysis (NA) is assumed to be the cornerstone of an ESP course (Robinson, 1991; and Dudley-Evans and St John, 1998). Brown (1995) identifies the term needs analysis (also called needs assessment) as the activities involved in gathering information that will serve as the basis for developing a curriculum which aims at meeting the students' needs.

Besides, Basturkmen (1998:2) defines needs analysis as "*the identification of difficulties and standard situations by observation of participants functioning in a target situation in conjunction with interviews and questionnaires*". She further says, "*Language needs analysis are most often used where the learners in selected situations face very similar difficulties.*" Moreover, Richterch and Chancerell (1987) as quoted in Basturkmen (1998:2) assert that "*the aim of needs analysis is not only to identify elements but to establish relative importance, to find out what is indispensable necessary or merely desirable.*" Hence, we can deduce that in language programs, needs are language related; once identified, they can be stated in terms of goals and objectives which, in turn, can serve as the bases for developing tests, materials, teaching activities, and evaluation strategies.

3. The Importance of Needs Analysis

The discussions of the importance of needs analysis focus on its role as a starting point or a guide for course design, syllabus design, materials selection, assessment or even classroom activities. Berwick (1989) says that needs assessment is important for decision planners to design the course. Assessment of a course needs involvement of learners' changes concerning learner needs which have to be made during the course with consultation of the learners. Within this context, McDonough (1984:29) points out that the language needs of the learner should be the bases for course development. He adds, "*information on his or her language needs will help in drawing up a profile to establish coherent objectives, and take subsequent decisions on course content.*".

Moreover, Riddell (1991:75) refers to the crucial role that needs analysis plays in syllabus and course design by arguing "*...through it [needs analysis] the course designer becomes equipped to match up the content of the program with the requirements of the student body [what learners need]*". Hence, we can infer that teachers can use published materials, adapt or write in house materials. However, whatever option is selected, the assessment of student needs has to be taken into consideration.

Furthermore, Bowers (1980) states that students' needs is a guide in syllabus development, materials and examination. The significance of needs is quoted in Clark (1978:78), who asserts that "*The first step in any language teaching project must surely be to design a syllabus that will reflect the language needs and wishes of the learner concerned, and that will accord with a*

responsible theory of language learning". Thus, Needs analysis should be carried out throughout the course in order to adjust the learning objectives as the need arises. In other words, feedback from the learner can be used as bases for modifying learning objective since learners can contribute substantially to the course if they are actively involved at all stages of the course design; at the initial, during, and final stages of course evaluation.

4. Instruments for Needs Analysis

Questionnaires and interviews are two commonly used instruments for needs analysis. Kumar (1996) discusses the advantages and drawbacks of questionnaires and interviews. Questionnaires do not take long to administer and it is often possible to get information from a large number of respondents. The responses are anonymous and thus respondents will hopefully offer their opinions and ideas frankly unlike interviews which are time consuming and because of this the investigator can often only interview a few people. However, in an interview the investigator can probe responses and thus gain an in-depth understanding of the opinions and information offered. Additionally, unclear questions or answers can be clarified during an interview.

As a matter of fact, both types of data collection potentially have drawbacks. For example, people tend to think carefully about questionnaire items before responding. This may lead respondents to try to provide idealized responses (responses they see as socially desirable). Good interviewing skills do not come naturally to everyone and some interviewers may let their own opinions come across too strongly and lead to bias in the interview. However, the present research work advocates the use of a questionnaire as it allows the researcher collect detailed information about the learners' needs which in turn would greatly contribute in the course design process.

5. The Case Study: First Year Master Students' of Architecture
5.1 Research Tools
5.1.1 Focus Group Discussion
Students' questions were designed based on ideas forwarded by various scholars: Hyland (2003), Basturkmen (1998), Dudley- Evans and St. John (1998). There are many advantages for group discussion; we can list some of them:

* The participants are able to raise their own issues that they feel are important.
*People are often more candid and spontaneous in a group discussion.

* Discussion among focus group participants can generate new information and promote new issues providing a range of responses with useful information.

5.1.2 Procedure of Conducting the Focus Group Discussion

*The Workshop/ Focus group discussion was conducted among 20 students, who were randomly selected and divided into small groups, (four students per group) to discuss and answer eight
questions.

*Participants have been allowed to do most of the talking, and have been provided sufficient time to gather and write down their thoughts.

*The researcher stressed that everyone's view is important and there are no incorrect answers and almost everyone had the opportunity to speak.

-By the end of this workshop students have been asked to submit small reports of their discussion that will be taken into consideration in the newly designed course.

5.2 The Needs Analysis Questionnaire

Jordan (1997) indicates that there is no single approach to conduct needs analysis. Every researcher has different circumstances that influence the choice of method in conducting his/her investigation. It falls to the researcher to choose the method that best serves his/her goals. Questionnaires were determined to be the best means of investigation in this study. They were selected as the source of data collection for the following reasons:

* The number of participants was expected to be fairly large.

* They require minimal time from participants and provide a flexible and convenient way to participate in the study.

* Participants could be assured of a certain degree of anonymity in their responses and could respond candidly.

5.2.1 Setting

The present research investigation was conducted at Mohammed Kheider University of Biskra , Algeria specifically at the department of architecture.

5.2.2 Population

The Needs analysis questionnaire has been distributed to Sixty (60) architecture students from Biskra University. The researcher wanted to take the total population size so that the investigation would be manageable and appropriate considering the nature of the study and would lead to greater valid findings. As a result, the available population was used to provide equal chances for the respondents in order to indistinguishably enable them to contribute in accordance with their own language abilities (current competence) and their wants and needs from the course. Besides, the study selected the architecture students for the following reasons:

a) The researchers noted that the course being currently offered to architecture students is unlikely to meet their language needs.

b) The researcher observed that students are provided with de-motivating content of their syllabus, have a poor command of the language, lack interest to learn the language.

6. Analysis of the Data

In this part, the focus group discussion and the needs analysis questionnaire are analyzed respectively.

6. 1 Students' focus group data analysis

* The actual delivered ESP course did not meet the students needs since they expected it to offer them fundamental communication skills of writing essays, articles and reports, speaking in discussions and reading different texts, however, the course didn't meet such expectations.

* The students were asked if their teachers use needs analysis questionnaire before designing their lectures and unfortunately their reply was "no".

* A part from basic communication skills, most attendants of the discussion wanted the course to provide them with lessons of grammar and vocabulary, which are helpful to develop their speaking, reading and writing skills.

* The participants of the discussion agreed that the activities, tasks and examples were not always related to their field. They added that most examples provided (for instance in grammar) are not related to their field of study but taken from everyday life.

* Concerning the use of teaching aids, all the students agreed that their English teachers do not use tape-recorders, videos, realia, language laboratory lessons or overhead projectors in the teaching-learning process; but the teacher frequently used handouts or chalkboard. However, this frequent use of handouts and blackboard did not satisfy the students learning preferences because they clearly indicated in their answers that they needed to learn through videos, overhead projectors, and so on.

* The students also agreed that they had low interest in the course being offered as it did not meet directly their needs and because they are not provided with the opportunity to practice the language skills.

7. Analysis of the Questionnaire

The Needs Analysis Questionnaire results were summarized in terms of skills and their main areas to be improved.

7.1 Listening Skill

Which listening abilities do you want to improve?
a)- comprehending speech delivered with native speaker fluency.
b)- understanding conversations on every day social and routine job-related themes.
c)- listening to extended lectures/briefs and summarizing main ideas in note form.
d)- recognizing words in the context by the help of speech sounds.
e)- effectively and attentively listen to the information sent by the speaker.

Table 1. Listening abilities to be improved

Option	Percentage
a	23,58%
b	21,95%
c	17,89%
d	14,63%
e	21,95%
Total	**100%**

Fig.1. Listening abilities to be improved
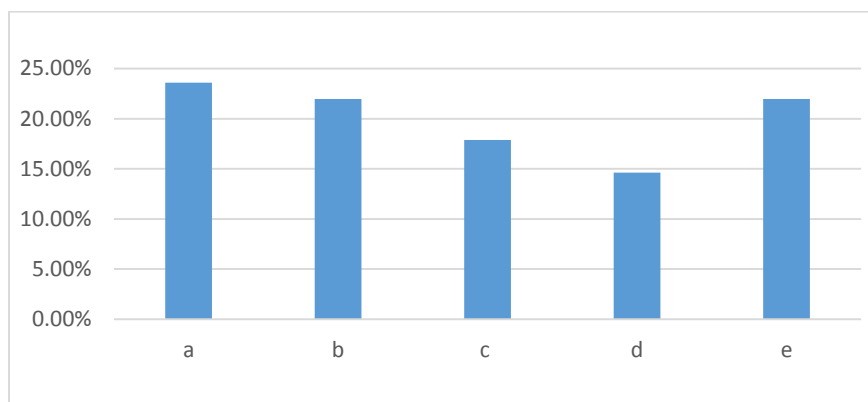
In listening, 29 respondents (23, 58%) need listening to comprehend speech delivered with native speaker fluency. However, 18 students (17, 89%) want to improve their listening ability to listen to lectures, briefs and thus being able to summarize the main points. Students seem to be less interested to recognize words in the context by the help of speech sounds as it has received the lowest percentage (14, 63%).

7.2 Speaking Skill

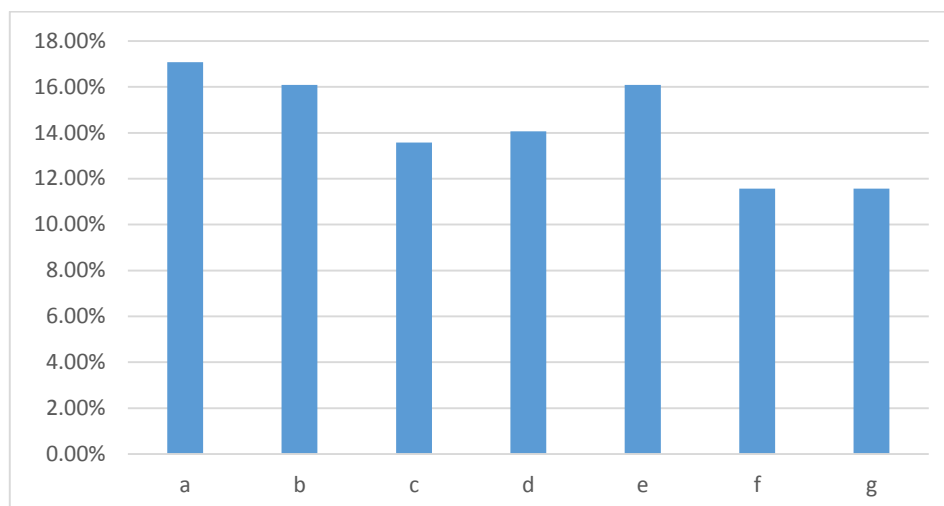Which of the speaking sub-skills do you want to improve?
a) - participating in discussions.
b) - Foming grammatically correct sentences while speaking.
c) - using the language appropriately in socio-cultural contexts.
d) - speaking fluently and accurately.
e) - Asking and answering questions.
f) – pronouncing words clearly and correctly.
g) - Being confident while speaking.

Table 2. Speaking sub- skills to be improved

Option	Percentage
a	17,08%
b	16,08%
c	13,57%
d	14,07%
e	16,08%
f	11,56%
g	11,56%
Total	**100%**

Fig.2. Speaking sub- skills to be improved

574

The results indicate that students want to form grammatically correct sentences (17, 08%), ask and answer questions (16,08%) and hence being able to participate in discussions (16,08%). Speaking the language accurately, fluently and appropriately in socio-cultural context has received almost the same percentage (14, 07%), (13, 57%). These last two options are students 'second objective to achieve. The two remaining options of pronouncing words clearly and correctly, being confident while speaking (11, 56%) are the least important from the students' point of view.

7.3 Reading

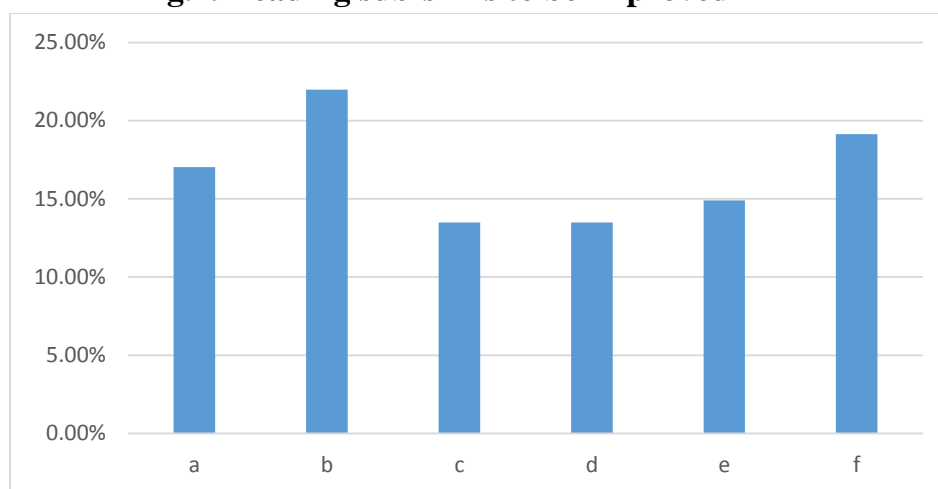Which of the following reading sub-skills do you want to improve?
a)- reading a range of general authentic texts on every day social and routine job related themes.
 b) - reading notes/books/articles/reports related to architecture.
 c) – making summaries and deducing unknown words.
 d) - skimming (reading quickly for the main idea or gist).
 e) - scanning (reading quickly for a specific piece of information).
 f) - understanding a wide range of technical/ academic vocabulary.

Table 3. Reading sub- skills to be improved

Option	Percentage

a	17,02%
b	21,98%
c	13,48%
d	13,48%
e	14,89%
f	19,14%
Total	**100%**

Fig.4. Reading sub-skills to be improved

(21, 98%) of the respondents need to read notes/books/articles/reports that are related to architecture. (19,14%) want to understand a wide range of technical/ academic vocabulary. (17,02%) are interested to read a range of general authentic texts on every day social and routine job related themes. (14,89%) want to be good scanners to get quickly the specific information they are looking for. (13,48%) represents an equal need for the two other options of making summaries , deducing unknown words and skimming.
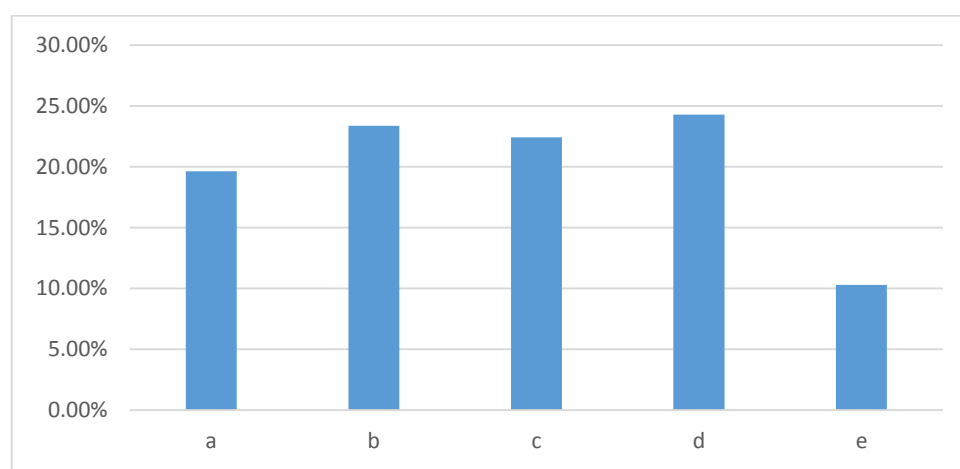
7.4 Writing
Which of the writing sub- skills do you want to improve?
a) - writing articles, reports etc…
b) - using a wide range of technical/academic vocabulary in writing.
c) - writing formal and informal correspondence and documents on practical, social and professional topics.
d)-Writing to find a good job.
e) - summarizing and paraphrasing information in paragraphs or an essay.

Table 4. Writing sub-skills to be improved

Option	Percentage
a	19,63%
b	23,36%
c	22,43%
d	24,30%
e	10,28%
Total	**100%**

Fig.4. Writing sub- skills to be improved

Concerning the writing skill, students have shown almost equal needs for the four options (24, 30%) need to write to find a good job. (23,36%) want to use a wide range of technical/academic vocabulary in their writings. (22, 43%) feel the need to write formal and informal correspondence and documents on practical, social and professional topics. (19, 63%) wish to be able write articles and reports. Only (10, 28%) of the respondents have selected the last option and thus, we can deduce that the majority of students are not interested to summarize and paraphrase information in paragraphs or essays.

The analysis of the students' questionnaire has helped us discover lacks and wants perceived by architecture students. Besides, the findings of the group discussion results greatly emphasized the value of speaking in the course. Therefore, a new ESP course focusing on speaking and reading skills would be developed.

8. CONCLUSION

In the light of the aforementioned findings, the following conclusions could be made:

1* Needs Analysis is considered as a mandatory step before any course
design

2* Adopting needs analysis can provide the necessary platform required for the delineations of the desired course.

 3* Needs analysis offers information on both the content and form that the course is expected to exhibit.

4* Teaching and learning ESP courses that are matching with the students' needs will certainly produce reasonable outcomes.

5* Accurately prepared ESP courses encourage students to learn and search in their field of specialization.

9. General Recommendations

1* ESP teachers should adopt learners' needs analysis as the essential basis for designing ESP courses to avoid having any problems or drawbacks that affect students' English learning.

2* Selection of ESP course contents should be strictly decided after investigating learners' needs in order to prepare more motivating and effective Courses.

3* Teachers should concentrate on the learner's interaction (student-centered) rather than lecturing and overwhelming the course with exhaustive list of words and boring grammar exercises. Meaningful interaction with others speakers in the target language enhances the opportunity for competency. Therefore, we have to create opportunities for the learners to create effective communication skills in the classroom.

4* The inclusion of supplementary grammar activities related to the specialty into ESP teaching materials would be an advantage for the majority of the learners.

5* Teaching English for specific purposes must be a matter of achieving communicative competence in specific content rather than merely attaining general linguistic competence.

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11. Appendices

Samples of the Newly Designed Course based on the students' Needs

Lecture 01:

Improving Students' Speaking Skill:

Seminar Skills lecture

Since our objective is to best meet the students 'needs, this lecture aims at helping the students to be more aware of what is involved in seminar activity and to supply them with some of the interactional language that is used there.

Objectives: by the end of this lecture students will be able to use some phrases which will enable them to:

-present their projects;

-research papers

-participate in seminars and discussions.

Some Phrases for Academic Presentation

Introduction (after greeting the audience and introducing yourself or being introduced) The subject/topic of my presentation today will be………………

Today I would like to present recent result of our research on … What I want to focus on today is …

Outlining the structure of the presentation

I will address the following three aspects of …

My presentation will be organized as can be seen from the following slide.

I will start with a study of … Next, important discoveries in the

field of … will be introduced.

Finally, recent findings of … will be discussed.

Introducing a new point or section
Having discussed …, I will now turn to … Let's now address another aspect.

Referring to visual aids

As can be seen from the next slide/diagram/table … This graph shows the dependency of … versus.....

The following table gives typical values of …

In this graph we have plotted … with …

Concluding/summarizing
Wrapping up …

To summarize/sum up/conclude …

Inviting questions

Please don't hesitate to interrupt my talk when

questions occur. I would like to thank you for

your attention.

I'll be happy/pleased to answer questions now.

Dealing with questions
I cannot answer this question right now, but I'll check and get back to you.
Perhaps this question can be answered by again referring to/looking at table ...

Task:

Choose any topic or project, you feel that you are interested in, related to architecture, prepare it then present it using the academic phrases that you have learned.

Lecture 02:

Bridging the Gap

Measured by the effect they have on our spirits and imagination, bridges are the highest form of architecture. They stand as metaphors for such much in life. _Let's cross the bridge when we come to it.' I remark when I went to put off thinking about

some nasty dilemma. If I quit a secure job. ‗I am burning my bridges'. If I make friends with strangers, I am building bridges. I say, ‗it's all water under the bridge.'

Why do we hold bridges in such regard? One reason is surely that, because of their strategic importance, they are often scenes of fierce battles and thrilling heroics. A bridge can often embody the spirit of a city even an entire nation, as the Sydney Harbour or Brooklyn Bridges.

The bridge is a symbol of mankind's belief in its ability to overcome any natural obstacle, no matter how wide, deep or windswept. That belief has occasionally been tragically misplaced, but it has never been shattered.

What is indisputable is that our own age has seen one of the most innovative bursts of bridge building ever.

The Akashi Kaikyo Bridgeb in Japan is the longest, tallest and costliest

suspension bridge ever constructed.

Connecting Kobe with Awaji Shima Island, the bridge has been built to withstand hurricanes, tidal waves and earthquakes. It has a total length of 3,910 meters.

The Golden Gate Bridge spans the mile-wide moth of San Francisco Bay. The total length of the bridge is 2,739 meters. The bridge expands on hot days and contacts when it is cold. On hot days the heat lengthens the cable. As a result the bridge becomes 4, 9 meters lower and 1,8 meters longer. The bridge was opened on 21 Mai 1937 with a pedestrians' day, during which 200,000 people walked across the bridge. On the morning of the following day it was opened to traffic.

The Alamillo Bridge across the river Guadalquivir in Seville demonstrates how a striking new bridge can revitalize an old city. The bridge is supported by a pylon and cables which from the graceful shape of a harp. It has a span of 200 meters.

There has been a bridge over the River Vitava in Pargue, Czech Republic for several centuries, but the now famous **Charles Bridge** (Karlov Most) was built in the 14th century and named after the king. It is unusual because it is made of sandstone, not hard granite, which required some maintenance work in the 15th century after a flood.

In 2005 further repairs started on the bridge. This work was scheduled to be completed within two years. Street artists and tourists can always be seen along its 500 meter length.

Objectives: The activities of this lecture are varied, students will be able to:

-scan the article to locate specifically required information;

-skim the article to get the general idea;

-learn new vocabulary through the use of idioms;

-Use different prefixes;

-Use the passive voice; and finally share information with their pairs and produce a piece of writing.

Note: This lecture is designed to meet the students' needs. It is a sample lecture that may help teachers design activities that are well exemplified in a particular text, report or article.

Reading

1. Do you recognize the bridges in the photos?

2. What is the most impressive bridge in your country?

3. Read the introduction. Which of these reasons account for the importance of bridges?

 a)-They are essential for transporting goods and trade.

 b)-They have military significance.

 c)-They bring beauty into our lives.

 d)-They symbolize people or places

 e)-They give people more belief in their ability to achieve things.

 4.a Read the rest of the article. Which bridge:

-was made of soft stone?

-was built to resist disasters?

-changes its dimensions according to the temperature?

-look like a musical instrument?

 4.b Compare the bridges. Think about the following:

   Age, length, appearance and use.

Vocabulary : idioms, prefixes

 5.a Read the first paragraph of the introduction again. Complete these sentences with idioms from the paragraph, in the correct form.

 a. I am not leaving this job till I have got something to go to. I do not want to…………..

 b. We do not need to look at the problem failing sales yet. Lets……………

 c. Do not worry about me anymore. It's……………………………………

d. Look at these words from the article. Underline the prefixes.

Indisputable	misplaced	overcome
Revitalise	unusual	

5 b. Add prefixes to these words to change the meaning.

1. understand   3.define

2. Crowded   4.sensitive

Grammar: the passive voice

6 a. Look at the article again and underline examples of the past simple passive and the present perfect passive. How are these formed?

6 b. Look at these two sentences from the article. Matches them with the forms below.

1.An earthquake added a metre to the bridge's length while it *was still being built*.

2. This work *was scheduled to be completed…*

a) passive infinitive   b) past continuous passive

7. Correct the errors in italics in the report.

Complaints *have received* about the recent construction of the Sheridan Hotel in Main Square. It *was completing* in November last year. While it *was constructing*, many residents and business people of the town suffered great inconvenience. Building materials *were delivering* at all hours of the day and night, and the noise level was unbearable. When the foundations *were digging*, the air became polluted and the streets were very dusty. Complaints *were making* daily to the Council but nothing *was doing*.

As a result, several shops *have been closed* for some weeks during the worst period and now several claims for compensation *have received* by the Council .The hotel *has now built* and the Council next week to discuss the complaints and what is *be*

done about compensation. We expect the conclusions to publish by the end of the week.

Speaking and Writing

Work in pairs. You have a photo of one bridge and information about two. Share your information, and then write a paragraph about a famous bridge.