

## ***Developing and Testing Reading Skills Through Art Texts***

### **1. Introduction**

Course and test design for students learning English for Special Purposes (ESP) such as nursing, business administration, science and technology and electronics has been a controversial issue in many countries for many decades. For example, in Algeria, Scholz & Scholz (1979) investigated the level of language proficiency in ESP that can be effectively taught to nonnative speakers. They administered 8 tests to 50 students at an electronics institute in Algeria after a 16-week intensive English course. The first four tests were in ESL skills such as grammar, listening comprehension, a cloze test of brief ESL passages and dictations. The other four tests were in technical language, including a technical grammar test, reading passages, cloze tests of brief passages, and dictations. It was found that the results of the ESL tests significantly correlated with those of the technical language tests. The following semester, structure and listening tests were administered. It was found that the ESL tests scores predicted ESL performance slightly better than the ESP tests scores, whereas the integrative cloze and dictation tests appeared to be better indicators of a learner's ability to succeed in technical subjects.

In Germany, Brunt (1981) discussed problems related to testing English for Science and Technology. Brunt found that both teachers and students had little knowledge of the content and conventions of scientific writing, because they were mainly trained in literary English. Difficulties arose when needs, aims, and methods were not sufficiently clarified. Students at comprehensive universities had to take make-up courses in English, German, and mathematics, with the course content and conditions for final exams established by the Ministry of Science and Education. Instruction aimed at helping students pass the final exam set by the Ministry. Teachers had to decide what the students needed to know. At one university, word lists were compiled with emphasis on sub-technical vocabulary, and attention was given to teaching the reasons for using rhetorical devices. The cloze test used proved to be valuable in testing students' awareness of logical cohesion between sentences.

In the U.S.A., Regan & McCoy (1982) indicated that most U.S. institutions required international students to meet a minimum English proficiency test requirement for admission to an institution. The language requirements for admission appeared to be the same for technical and academic students. Standardized English proficiency tests purported to be non-specific and the majority of the items referred to materials of an academic nature. This involved a problem for ESP training programs which provided training in a register of English that was not necessarily academic. The researchers recommended that ESP programs prepare students to take the required non-specific tests, that proficiency

test be the sole criteria for evaluating students' readiness to enter technical training, and that English programs prepare students for admission to the university and enrolment in the technical program.

In Kuwait, Mason (1984) looked at the appropriateness of multiple-choice placement tests of grammar, vocabulary, and reading comprehension for placement and diagnostic purposes in large programs at Kuwait University Language Center and concluded that carefully designed and written multiple-choice tests were invaluable in helping to form homogeneous classes.

In Ukraine, Tarnopolsky (1996) described an intensive course in English for business communication offered to graduate-level teacher training. The course consisted of two parts: a 14-week intensive general English class to develop basic communication skills and characteristic behavioral patterns of English-speakers and a 14-week immersion class in English business communication that covered a wide range of business-related contexts. The latter class was divided into nine steps based on a single theme about a Ukrainian businessman and businesswoman visiting London. After the first part, students' progress was evaluated using an oral and a listening test. At the end of the second part, two oral and one listening test were administered. The course proved to be successful, with high achievement rates for most students.

In Japan, Adamson (1998) designed a two-semester content-based ESP course for nursing students. The course aimed at meeting licensure requirements for English language training. It emphasized listening and speaking skills, and incorporated principles of accelerated learning. The materials consisted of a ten-chapter text per semester and a serial melodrama based on a story line about a nurse working at a large hospital and characters flexible enough for the students to help develop their personalities. Increasingly serious medical story lines evolved, with cliff-hangers at the end of each chapter and a plot of high interest to students. Classroom teaching techniques included playing of classical music during passive readings and a series of review and expansion activities. Testing consisted of a series of true-false questions. The test results showed that the curriculum was positive.

In Iran, Salmani-Nodoushan (2003) studied the effects of text familiarity, task type, and language proficiency on university students' language for specific purposes test and task performances. Students majoring in electronics took the Task Based Reading Test. Analyses indicated that text familiarity, task type, and language proficiency resulted in significant differences in overall and differential test and task performances.

To conclude, different English program design, content and different test formats and test content were used by the above studies for assessing the students' acquisition of English. The difference arose from the aims for which the students are studying English, and from institution and degree requirements. For learning, teaching, and testing to be in harmony, test specification and test items should be derived from the same needs analysis and program consensus used for developing ESP instructional materials (Scholz, 1993). Scholz (1993) pointed out that little research has been conducted on this issue, or in ESP testing in general. He

recommended that the structure of the original needs analysis be reviewed and consensus-building be undertaken to increase the program's pedagogic and operational cohesion. Thus program evaluation and improvement would be beneficial, and both instructional materials and tests would be more appropriate.

Based on a needs assessment questionnaire and an English proficiency test, an ESP course was specially designed for female graduate students majoring in art education at the College of Home Economics (CHE) in Riyadh. The aims of the ESP course were to develop the students' ability to read and comprehend specialized reference materials in art education and be able to translate the material that they need for their assignments, terms papers, and thesis. At the end of the semester, a posttest was designed to assess the effect of the ESP course in developing the students' reading comprehension and translation skills. The aims of the present study are to describe the ESP program components and the content and skills measured by the posttest. This description will enable instructors teaching English for art education purposes to replicate the procedures in teaching ESP to other groups of graduate students and help them construct Reading for art education purposes tests that they can use to assess graduate students' achievement. This study has both theoretical and practical implications for ESP instructors. It identifies the reading skills and course content to be taught and tested.

## **2. Participants**

Ten female graduate students participated in the study. They were all art education major and were in their first semester of the doctoral program in art education. They were enrolled in an English-for-Art-Education course which the author taught for two hours a week, in partial fulfillment of the Ph.D. requirements. The students were concurrently enrolled in three art courses. All the subjects were working as lecturers at the Art Education Department, where they taught art courses to undergraduate students. They were all Saudi, and were all native speakers of Arabic. Their median age was 28-36 years. They all had 6 years of EFL instruction in grades 6-12, and two semester of English at the B.A. and M.A. levels.

## **3. Identifying Graduate Students' Needs**

According to Dudley-Evans (1998: 1), Jureckov (1998: 2), Flowerdew (1995: 19-35), Cruickshank (1983: 1), needs analysis is the basis of ESP course design. Thus the first day of classes, the students' English language needs were assessed by a needs assessment questionnaire which consisted of the following questions: (A) *For what purposes do you need English while studying?* (B) *For what purposes do you need English after you graduate?* Students' responses were tallied and their language needs were identified. It was found that all the students needed to learn English to be able to read specialized materials in art education in English during the doctoral program and after graduation and to be able to translate the information that they need for their homework-assignments, terms papers and theses from English into Arabic.

## **4. Assessing Students' Proficiency Level:**

Before instruction, the students' proficiency level in English was assessed by a teacher-made test consisting of four subtests: reading comprehension, vocabulary, paragraph-writing and translation. The pretest consisted of the following questions:

(i) Read the passage and answer the questions that follow; (ii) Write the Arabic meaning of the following art terms; (iii) Write the English meaning of the following art terms; (iv) Break the following art terms into prefixes, suffixes and roots using dashes (-); (v) Read the following paragraph and fill in the table; (vi) Write a paragraph in which you introduce yourself and talk about your job and field of study; (vii) Give a summary of the following English text in Arabic. Results of the English Proficiency Test revealed that 90% of the subjects exhibited poor reading comprehension skills, vocabulary knowledge, writing, spelling and translation abilities (See Table 3).

### **5. The Art Reading Program**

On the basis of the students' language needs, and their proficiency level in English, an ESP course was designed. The course had the following components:

(i) **Art Reading Texts:** Authentic art texts about general art themes were selected from art encyclopedias, art books, internet art websites, encyclopedic art dictionaries and art book reviews. The texts increased in length and difficulty level. They had different organizational structures and formats. Most texts had familiar art themes. Examples of art themes selected for the reading material were: Art schools (cubism, surrealism, realism, neoclassicism, romanticism...etc.), famous artists, visual elements and principles of art (line, shape, color, space, texture, balance, emphasis, movement/rhythm), art materials and tools, The Artist's Toolkit Encyclopedia from Minneapolis Institute of Arts, ARTyclopedia, Art book reviews from Amazon, The British Museum and others.

(ii) **Reading Skills:** The students received training in the following reading comprehension skills: Identifying main ideas and supporting details such as names of artists, artworks, place names, characteristics, classification, time sequences, enumeration, comparison and contrast; following directions; skimming for certain information; understanding and identifying the organizational structure of a text; and identifying transitional word and devices that signal comparison and contrast, classification, enumeration, sequences of events, cause-effect and illustrative examples.

(iii) **Art Vocabulary Enrichment:** Art terms and new general lexical items were taught in context. The students were trained to infer the meaning of art terms by breaking words into prefixes, suffixes and roots, by identifying the part of speech of the word as used in context, from definitions, punctuation marks, synonyms, antonyms, and examples available in the surrounding context. The students also looked up terms for art tools, art materials, and art schools from monolingual encyclopedic dictionaries.

(iv) **Grammatical structures in context:** Students were trained to locate the head noun and verb in a sentence, connect pronouns with their antecedents, understand compound, complex and embedded sentences by breaking them down into smaller units and identifying parts enclosed between commas, parentheses or dashes.

(v) **Translation:**

As a comprehension check, single words, certain phrases and sentences and the overall meaning of a paragraph were translated into Arabic.

## 6. Posttesting:

At the end of the semester, the students took a posttest (final exam). As recommended by Scholz (1993), for learning, teaching, and testing to be in harmony, test specification and test items should be derived from the same need analysis and program consensus used for developing ESP instructional materials. Therefore, the aim of the posttest was to measure students' ability to read and comprehend written English art texts, knowledge of art vocabulary, and ability to render the overall meaning of an art text in Arabic. The following is a description of the posttest.

### 6.1 Content Covered

The texts selected for the posttest were similar to those covered and practiced in class in terms of theme, sources, difficulty level and length. The test contained a long text about an artist, short texts, an art website, and web shots of book citations from amazon.

### 6.2 Skills Tested

(i) **Reading comprehension skills:** The reading test required the students to recognize the art text macro- and micro-structures, to locate main ideas and supporting details such as names of artists, artworks and place names, characteristics, classification, time sequences, enumeration, comparison and contrast, skimming through web shots from some art websites and book citations from Amazon, and locating specific information, identifying key concepts and key terms in the text and rendering the meaning of paragraphs, selected book citations and art terms in Arabic.

(ii) **Art Vocabulary skills:** The test required the students to figure out meanings of key art terms from context. It also required them to identify the part of speech of some art terms in context and to identify prefixes and suffixes in art terms.

(iii) **Translation skills:** The translation subtest required the students to render a translation of single words, the overall meaning of the text about an art museum, art works, and book titles.

Table 1. Test Specification Table

Content tested	Comprehension Skills tested				Vocabulary Skills tested			Translation skills
	Identify macro structure	Identify micro structure	Identify main idea	Locate details	Identify suffixes	Identify part of speech	Give Arabic meaning	
Long text (Picasso)	7		1	63				
Short text 1				2				
Short text 2		2	2	3				
Short text 3 (art gallery)								1
4 short texts	4	4		24				4
4 Book citations	4	4		40				4

Words					21	15	3	
Total	7		3	152	21	15	3	9

### 6.3 The Reading Test Items

Table (2). The Reading Test Questions and Marks Allocated to Each question and Sub-Question

Test Questions	Task	Marks
<p><b>Q I:</b> The students were given a long text about “Picasso”. The test required the students to skim through the text and answer the following questions:</p> <p>a. Write the main idea of the whole text.</p> <p>b. Write why Picasso is an important artist.</p> <p>c. locate the information below and write it in a summary table:</p> <ul style="list-style-type: none"> <li>• Stages in Picasso’s Career</li> <li>• Dates of each stage</li> <li>• Cities He Visited in each stage</li> <li>• Museums in each stage</li> <li>• Artists He Met in each stage</li> <li>• Name of Paintings mentioned in each stage</li> <li>• Subject Matter of each painting mentioned in each stage</li> <li>• Painting Style of each painting mentioned in each stage</li> <li>• Characteristics of each painting mentioned in each stage</li> </ul> <p>d. Vocabulary questions:</p> <ul style="list-style-type: none"> <li>• Write the meaning of 3 word in English</li> <li>• Detach the suffixes of 6 words.</li> <li>• Give 15 (nouns, verbs and adjectives) derived from 6 words taken from the text.</li> <li>• Find 18 words in the text ending with suffixes that refer to persons, art works, art styles, actions, and characteristic</li> </ul>	<p><i>Skimming;</i> <i>locating</i> <i>main ideas;</i> <i>recognizing</i> <i>text divisions;</i> <i>&amp; locating</i> <i>specific</i> <i>details</i></p> <p><i>Vocabulary</i> <i>skills</i></p>	<p>-</p> <p>-</p> <p>-</p> <p>3</p> <p>3</p> <p>-</p> <p>-</p> <p>7</p> <p>7</p> <p>7</p> <p>7</p> <p>7</p> <p>7</p> <p>7</p> <p>7</p> <p>-</p> <p>7</p> <p>-</p> <p>7</p> <p>-</p> <p>-</p> <p>3</p> <p>6</p> <p>15</p> <p>-</p> <p>18</p> <p>-</p> <p>-</p>
<p><b>Q II:</b> The students were given a short text and asked 2 questions about details</p>	Identifying details	4
<p><b>Q III:</b> The students were given a short text and asked 3 questions about details</p>	Identifying Details & recognizing organizational clues	6
<p><b>Q IV:</b> The students were given a short text and asked to render the overall meaning in Arabic.</p>		6
<p><b>Q V:</b> The students were given 4 short texts with an artwork from an online art website. They were asked to skim through the texts and fill in a summary table with the following information:</p> <ul style="list-style-type: none"> <li>• Name of work</li> <li>• Name of artist</li> <li>• Where it is kept;</li> <li>• Name of donator;</li> </ul>	<p>Skimming</p> <p>Recognizing punctuation marks and text format;</p> <p>identifying details; giving a summary</p>	<p>-</p> <p>-</p> <p>-</p> <p>-</p> <p>4</p> <p>4</p> <p>4</p> <p>4</p>

<ul style="list-style-type: none"> <li>• When it was finished;</li> <li>• Art elements;</li> <li>• Summary of elements and characteristics in Arabic</li> </ul>	translation	4 4 20
<p><b>Q VI:</b> The students were given 4 book entries (citations) from www.amazon.com. They were asked to skim through the entries and fill in a summary table with the following information:</p> <ul style="list-style-type: none"> <li>• Title</li> <li>• Author</li> <li>• Editor</li> <li>• Publication year</li> <li>• Topic</li> <li>• Most expensive book</li> <li>• Best book</li> <li>• Book with several editions</li> <li>• Fastest to get</li> <li>• Translate book title in Arabic</li> </ul>	Skimming; Identifying detail; recognizing Parts of an onlinebook entry or citation; comparing information; translating book titles.	- - 4 4 4 4 4 1 2 2 2 2 8
Total points		200

#### 6.4 Scoring the Test

The pre- and posttests were blindly graded by the author. An answer key was used. Word level questions were given one point each; sentence level questions were given 2 or 3 points each and paragraph level questions were given 5 points each (see distribution of marks in Table 2). Points were deducted for spelling and grammatical mistakes. Each student was given 3 scores: a reading score, a vocabulary score, and a translation score. Scores were converted into percentages.

#### 6.5 Test Validity and Reliability

The posttest is believed to have content validity, as it aimed at assessing the students' comprehension of art texts, knowledge of basic art terminology and ability to translate the overall meaning of an art text at the paragraph level. The content covered by the test was comparable to course materials, class discussion and assignments. The test instructions were phrased clearly and the examinees' task was defined. All of the students comprehended the questions and responded to them as instructed.

Concurrent validity of the posttest was determined by correlating the students' total score on the posttest and their total score on the midterm test that measured reading comprehension, vocabulary and translation skills as well. The validity coefficient was .62 and it was significant at the .01 level.

Since the author was the instructor and the scorer of the pretest and posttests for both groups, estimates of inter-rater reliability were necessary. A 30% random sample of the pretest and posttest answer sheets was selected and double-scored. A colleague who holds a Ph.D. degree scored the pre and posttest answer sheets. In scoring the sample answer sheets, she used the same answer key and followed the same scoring procedures utilized by the author. The marks given by both raters for each subtest in the sample were correlated. Inter-rater correlation was 98%.

Furthermore, examinee reliability was computed as it indicates how

consistently examinees perform on the same set of tasks. Examinee reliability was also calculated by using the Kuder-Richardson 21' formula as it estimates the internal-consistency of the test items. The reliability coefficient of the posttest was .63.

### 7. Statistical Analysis

The mean, median, standard deviation, standard error and range were computed. To find out whether the students made any progress (gain) as a result of instruction, a within group paired T-test was computed using the pre and posttest scores.

### 8. Results

Table (3) shows that the median score on the pretest was 22.5% (range = 15% -48%) and the median score on the posttest was 62.5% (range = 40% - 88 %) with larger variations among the students' posttest scores than the pretest score as revealed by the standard deviation values. Results of the paired T-test in Table (4) show a significant difference between the pre and posttest mean scores at the .01 level, suggesting that the students' achievement significantly improved as a result of exposure to ESP course (T = 14.6, Df = 9). Results of the Pearson correlation matrix in Table (5) show that there is a significant positive correlation between the students' vocabulary and translation scores (r = .77; P<001) and a significant correlation between students' reading and translation scores (r =.51; P<.05). However, the correlation between the reading and vocabulary scores was non-significant.

Table 3. Distribution of Pre- and Posttest Scores

	Mean	Median	SD	SE	Mode	Range
Pretest	27	22.5	9.49	3	20	15-48
Posttest	62.5	66.5	13.54	4.28	48	40-88

Table 4. Paired T-test Results

	N	Mean	SD	SE Mean	t	df	P
Pretest	10	27.0	9.49	3.00	9.0	9	.000
Posttest	10	62.5	13.54	4.28	14.6	9	.000

Table 5. Pearson Correlations among Vocabulary, Reading and Translation Posttest Scores

	Vocabulary	Reading
Vocabulary	-	-
Reading	.31	-
Translation	.77**	.51*

\*\* Correlation is significant at the 0.01 level.

\* Correlation is significant at the 0.05 level.

The test also had a good discrimination power. It could discriminate between students who mastered and those who did not master the reading skills practiced in class as shown by the mean, SD and range of student scores in Table (3).

### 9. Discussion and Conclusion

To improve graduate students' reading, vocabulary and translation skills, an ESP course was developed and taught to graduate students majoring in art education in Saudi Arabia. At the end of the semester, a test was designed and administered to



find out whether the students' ability to read, comprehend and translate paper and online art reading material has significantly improved. The test also aimed at assessing the effectiveness of the ESP course in developing the required reading vocabulary and translation skills. Test results showed that the course was successful in developing the reading, vocabulary and translation skills that the students needed to pursue their graduate courses in art education and to continue to read specialized English material in art education after graduation. Findings of the present study are consistent with findings of other studies conducted by Tarnopolsky (1996) in English for business communication offered to graduate-level teacher training in Ukraine and by Adamson (1998) in English for nursing offered to Japanese students. Since the study was conducted with a small sample of graduate students, it is recommended that the ESP course and ESP test be replicated with larger groups of male and female graduate students majoring in art education to get better estimates of validity and reliability. The effectiveness of the ESP course can be also measured by self-reports at the end of the course and while taking graduate courses in art education as a follow-up measure of the effectiveness of the course taught. Since the subjects have a master's degree in art education and they are lecturers at their department, the effect of their background knowledge in art education on reading comprehension in English and translation skill acquisition may be subject to further investigation in the future.

### Works Cited

1. Adamson, C. (1998). *Nursing matters*. ERIC Document No. ED424781.
2. Brunt, R. (1981). *Testing between the cultures: A Case study of ESP testing in non-idealized situations*. ERIC No. ED217726
3. Cruickshank, D. (1983). *The theory and practice of teaching English for special purposes*. ERIC No. ED278225.
4. Dudley-Evans, T. (1998). *An overview of ESP in the 1990's*. ERIC No. ED424775.
5. Flowerdew, L. (1995). *Designing CALL courseware for an ESP situation: A report on a case study*. *English for Specific Purposes*, 14, 1, 19-35.
6. Jureckov, A. (1998). *Toward more reality and realism in ESP syllabuses*. *Forum*, 36, 2.
7. Mason, V. (1984). *Using Multiple-Choice Tests to Promote Homogeneity of Class Ability Levels in Large EGP and ESP Programs*. *System*, 12, 3, 263-271.
8. Regan, M. & McCoy, G. (1982). *English for Technical Training (ETT) and EAP Testing*. ERIC No. ED217740.
9. Salmani-Nodoushan, M. (2003). *Text familiarity, reading tasks, and ESP test performance: A Study on Iranian LEP and non-LEP university students*. *Reading Matrix: An International Online Journal*, 3, 1.
10. Scholz, G. (1993). *Exploring ESP and language testing*. ERIC No. ED368191.
11. Scholz, G. & Scholz, C. (1979). *Testing in an EFL/ESP Context*. ERIC No. ED259548.
12. Skehan, P. (1984). *Issues in the Testing of English for Specific Purposes*. *Language Testing*, 1, 2, 202-220.
13. Tarnopolsky, O. (1996). *Intensive Immersion ESP Teaching in the Ukraine: Theoretical Foundations and Practical Results*. ERIC No. ED409707.