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**A New Perspective in Teaching methodology and reading  
professional texts of EMPP/ESP for medical and paramedical  
purposes in Iran**  
(Una nueva perspectiva en la metodología de enseñanza y lectura  
de textos profesionales de EMPP/ESP para uso médico y  
paramédico en Irán)

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**Palabras claves:** EMPP, enseñanza, ESP, metodología

**Resumen.** Con el Nuevo milenio ha crecido y ha devenido urgente la necesidad de desarrollar las capacidades para entender y comunicarse con sus semejantes. El intercambio internacional de ideas ha devenido algo vital. Para cubrir esta necesidad un número creciente de personas buscan mejorar sus capacidades lingüísticas para lo cual el método ESP se ha convertido en un medio adecuado.

**Key words:** EMPP, ESP, methodology, teaching

**Abstract.** Entering a new millennium, we have to feel that the ability and the need to understand and communicate with each other has become increasingly important, at times even urgent. An international exchange of ideas seems to be not only essential but also vital. To meet these communication needs, more and more individuals have highly specific academic and professional reasons for seeking to improve their language skills particularly ESP which holds particular appeals to adults.

### **Introduction**

**Overview.** Entering a new millennium, we have to feel that the ability and the need to understand and communicate with each other has become increasingly important, at times even urgent. An international exchange of ideas seems to be not only essential but also vital. To meet these communication needs, more and more individuals have highly specific academic and professional

reasons for seeking to improve their language skills particularly ESP which holds particular appeals to adults.

**Teaching methodology and ESP in Iran.** Language teaching has undergone great changes, particularly in reading ESP texts. By convention, students meet once a week for two hours, finding no time for teaching writing or practicing oral communication, ignoring various techniques of reading-such as skimming, scanning, intensive reading, and so on. They had been practicing that sort of reading as they had done in their mother tongue. The activity done, in fact, could not be called task-based, either, since the task was simply comprehension of the message contained in the written text.

**The goals of ESP in Iran.** To enable students to read authentic discipline-specific texts, to provide them with a detailed knowledge of the theoretical issues in reading, with opportunities to develop and evaluate reading materials, and with experience in conducting reading research are among the main objectives of the ESP programs at Iranian universities. The other goals are psychological in a sense. These seek to realize the way(s) in which the second language learners master language competency in general sense to approach the rate and fluency of near native readers, the way in which to criticize ESP issues. Therefore, EAP has recently established itself a firm position in curricula for all university fields.

**Statement of the problem.** As the literature demonstrates, the most outstanding issue concerning EFL educators all around has been the question whether the methodology the relevant researchers invest on will deliver on its premises regarding the most desirable learning objectives or not. No such a well-worked-out theory has yet been found for ESP setting, nor has a single FL teaching methodology yet been able to tell the whole truth, to the extent possible, to provide a solid footing and sound guidelines for smooth and enjoyable journey towards the ultimate success in ESP.

**Research questions or hypotheses.** This is, in effect, a research in second language reading process and of methodologies involved in medical reading ESP teaching. The theoretical aspects of the course are integrated with practical concerns of classroom techniques, materials development, and evaluation. Therefore, this research addresses itself to answer:

1. Is there a differential effect between the integration of reflective and task-based type of teaching and the conventional approaches to teaching reading

comprehension and summary writing in nursing and medical ESPs in Iran?  
 2. Do the instructional strategies correlate with the learners' proficiency levels and the task types in nursing and medical ESP reading comprehension and summary writing?

**Review of literature.** This section starts with presenting certain conceptual definitions and a brief historical survey of ESP followed by its evolutionary stages. Among the many issues involved in ESP, the ESP learning strategies, syllabus design, materials, methodology, evaluation, and the relationship between different language skills particularly reading and ESP have been of great significance. For example, among different strategies employed by the learners to guess the meaning out of the context, utilizing cognates, visual layout these entirely take cues from cognitive learning theories.

**Developments of ESP.** The year 2001 being marked as a landmark in the global developments of ESP. ESP has undergone different stages; the initial step in ESP development was highlighted with joint projects between Iranian universities and Western academic. For example, Tehran University and The University of Illinois in 1974 embarked on joint efforts as a pioneering work in this regard. Another attempt was the program conducted at Tabriz University with the joint collaboration of the British Council in 1975 as another wave of interest in ESP instruction in Iran (Dudley-Evans et al., 1976). That course was done in terms of occupational need analysis in different fields. Other efforts that are worth mentioning are the English Language Center at Esfahan University of Technology where a number of ESP texts entitled *Reading English for Science and Technology* in 1978 were prepared. The second phase of ESP development in Iran is traceable to the efforts made by the government in 1980 to plan and implement ESP instruction systematically at all Iranian universities under the auspices of Iranian Cultural Revolution Council. It resulted in the compilation of eight ESP textbooks published by the SAMT in the late 1980s. But such materials did not manage well to satisfy the learners' needs, interest and motivation due to the fact that the average ESP class is heterogeneous in terms of the students' fields of specialism.

**Language learning strategies and L2/FL learning and teaching.** By the term strategy it is meant to refer to what the researcher here hypothesizes to be the solution to the problem. That is, the issue that ESP proficiency may be best achieved through an integration of reflective and task based teaching which aims

to develop the skills of considering the teaching processes thoughtfully. The assumption it is based on is that teachers can improve their understanding of teaching and the quality of their own teaching by reflecting critically on their teaching experiences. It is a tendency to weighing all the considerations in a problem, working out all the loopholes, and finally venturing a careful solution to the problem. Metacognitive strategies, in turn, contribute indirectly to language learning by providing the prerequisite for the operation of direct strategies, especially cognitive strategies, in language learning. However, cognitive strategies also significantly affect Iranian EFL learners' attainment of language proficiency. According to Tajeddin (2001), the high rate of correlation between the categories of language learning strategies lend support to conclusions about the type of connection between these categories. As Clouston (1997) maintains, LS are clearly involved in all learning, regardless of the content and context.

**Strategies in terms of tasks.** Strategies help us understand a certain problem through certain procedures: 1. clarification which refers to the status when a problem is vague where it does not lend itself to be easily managed, whereas when it is specific, it is easier to tackle. So clarification precedes problem solution. That is, the problem can be defined in terms of tasks. 2. Identification of the constructive key elements concerning a certain problem: we face various types of problems of different forms. Therefore, they happen to us with various amounts of significant information which from time to time may be of no use to us. Such trivial pieces of information must not capture our attention, time as well as energy. However, those constructive key elements of the problem should be decided on first, and then we can initiate looking for a solution to tackling that problem.

**Task-based language teaching.** Task-based Language Teaching, in terms of Candlin (1987) has, in fact, its roots in Long's (1985) definition of a task: ...a piece of work undertaken for oneself or for others, freely, or for some reward... As adopted and redefined by Nunan (1988), a task in language teaching is: A piece of classroom work which involves learners in comprehending, manipulating, producing or interacting in the target language with their attention principally focused on meaning not only on form. The task should also have a sense of purpose and completeness, being able to stand alone as a communicative act in its own right with a beginning, a middle, and an end (p.86). Besides, to define 'task', in terms of Prabhu, 1987; Candline, 1987, a simple operational definition is a piece of work or an activity, usually with a specified objective, undertaken as part of an educational course, or at work (Long and Crookes 1992: P.44).

Following Long and Crookes (1992), Skehan (1995) and Willis (1996) and Richards (1998), the framework chosen by the researcher for task-based type of teaching and learning is based on three stages: a pre-task- topic discussion. Stage 2. which goes on through the task cycle which includes the task, planning, a report and a post-task. The task cycling is done in pairs or groups to provide students with the opportunity to use their background knowledge to express themselves. Stage 3. is that of the language focus in which the teacher gets some tasks, which are language-focused, based on the texts students have read or heard. Jacobs and Navas (2000). These stages contribute to making language input as much comprehensible as possible, providing the students with the required contexts where they can produce their outputs as much comprehensible as possible, simulating the classroom as much close to real-life language situation as possible.

## **Methodology**

**Overview.** The ideas underlying this research all stem from the researcher's reflections through long experience and involvement in teaching different reading ESP texts, particularly in the fields of medicine and paramedicine. To answer the research questions, this study combines descriptive, quasi-experimental, and experimental designs.

**Subjects.** To have a better picture of the needs of the cases under study and to investigate the integration of the strategically-based methodology, task-based type of instruction, the texts which are authentic and reflectively-tailored in terms of the type of strategies applied by the students themselves, 300 students were invited to participate in this study. The subjects were studying the relevant fields in medical and paramedical courses across four university areas: Chamran, Shiraz, Dezful and Masjedesoleiman.

**Instrumentation.** This phase of the research has employed various measurement instruments including a general proficiency test, two major subject-specific EMPP reading comprehension tests each in four forms (reading passages, field competency multiple choice tests, open-ended and translation) corresponding to the discipline-based programs under study (i.e., medicine and nursing), two summary writing tests for the two fields, think-aloud protocols, two questionnaires. The detailed specifications as well as the relevant data concerning the raised issues will comprise the following subsections.

**EMMP reading comprehension tests.** In order to test subjects' reading abilities in their field ESP, the following reading tasks were administered: the subjects were asked to read four passages followed by five multiple choice comprehension questions, 40 items based on prespecified tasks adopted from the INCLEX-RN (2001), 10 open-ended items as well as a passage to be translated which all testing the subjects' understanding of the main point, supporting details, logical relationships, author's intention, and conclusion. To test the subjects' summary writing abilities in their field ESP, they were required to write a passage on one of their tasks pertinent to the topic areas under investigation which had been selected with the intent of being maximally close to the subject of reading. In order to elicit the strategy type used by subjects in their ESP reading and summary writings, Think-aloud Protocols and Reading/Writing Strategies Questionnaires were used. In fact, these Questionnaires were used since most strategies are invisible and questionnaires can draw this type of information directly from learners themselves in an introspective way. The content of questionnaires was constructed based on Oxford (1995). The questionnaires were distributed directly to the subjects in two consecutive administrations: the first week of the first semester and the last week of the second semester. Cronbach's Alpha coefficient was used in ascertaining the reliability of the questionnaires. The Alpha value for the strategies was equal to 0.95, N=300, No of items 70, but for the tasks the Alpha was equal to 0.66, N=300, no of items 40; the inter-rater coefficient correlation in scoring summary writing test items was  $r_{xy}=0.90$ , N=300,  $p=0.0001$  for summary writing and in translation it was  $r_{xy}=0.89$ , N=300,  $p=0.0001$  and finally in open-ended questions it was  $r_{xy}=0.94$ , N=300, and  $p=0.0001$  which were all significant and positive. The following categories of reading strategies served as the basis for constructing the Questionnaire as well as for analyzing the Think-aloud Protocols: skimming, scanning, predicting, contextual guessing, exploiting text surface structure, making inferences, activating background knowledge (linguistic, content and formal schemata) (see Block, 1986; Carrell, 1987).

The above-stated categories constitute the bases of construction of the Questionnaire and the analysis of Think-aloud Protocols. The subjects were introduced to the Think-aloud procedure and were given an opportunity to practice it during an orientation session. The Think-aloud statements (comments) were changed into a five point scale in terms of a multiple choice format in which choice 'a' plays the highest point and that of 'e' as the lowest point in scale. This procedure was modeled based on Oxford (1995) which seems more tangible and manageable to analysis. In order to avoid any possible transfer effect, the subjects

were asked to fill out the Strategies Questionnaires after the Think-aloud data were collected. Besides, the subjects were allowed to do their Think-aloud as well as to answer the questions on the Questionnaires in any language they chose (see Block, 1986, Devine, 1987). The evaluation and scoring of all the materials produced by the subjects were done by independent raters.

**Pilot study.** After revision of the items, the new phase was pilot testing. This phase followed to achieve two goals: 1. to examine the psychometric aspects of the tests themselves, 2. to put the preset time limits to test to find out if it is really appropriate and practical for the administration of the post test, and 3. to elicit the examinees' feedback concerning content of the tests for the sake of content validity, authenticity of the tasks for the sake of its naturalness, empirical as well as content validity, and explicitness of the instructions for that of both reliability and validity in generality. The subjects were 100 EMPP students for academic discipline- 50 nursing and 50 medicine students. Sex factor was ignored due to the fact that after the establishment of the Islamic Revolution mainly ladies have been admitted to nursing courses in Iranian universities. Moreover, all attempts were made to have homogeneous subjects with full similarity in their characteristics as those in the target samples. These attempts are, in effect, to attribute any change in learners to the treatment undertaken in the investigation.

Although some tests such as NCLEX\_RN test which is a collection of standardized test items universally used in different universities and hospitals, to remove any doubt on their validity and reliability, the researcher with the cooperation of two other faculty members embarked on collecting the results of the whole subtests and put them to statistical analyses. As far as validity of the tests was concerned, the tests were validated against their corresponding modules of the specimen versions of the English Language Testing Service (IELTS, 1990). To estimate the reliability of the tests, KR-21 formula, in turn, was used. Reasonable ranges of those statistical indices- validity and reliability- were found for EMPP reading comprehension and summary writing across both disciplines. Table 1. shows the psychometric details of the EMPP tests used in this investigation. Considering the subjects' general reactions to the content of the tests, instructions, and timing, some positive qualitative remarks were cited by the testees on the back of their answer sheets. After revising some test items according to the results of the pilot study, the final drafts of the EMPP reading comprehension tests were prepared.

Table 1. Psychometric Characteristics of the EMPP tests.

Field	Nursing	Medicine
No. of items	40	40
Reliability Coefficient	0.87	0.84
Validity Coefficient	0.86	0.81

**The general English proficiency test.** This phase of the research is to examine the extent to which the Iranian EMPP programs have a constructive contribution to the learners' reading comprehension and summary writing skills in light of their general English proficiency (GEP) levels on entry to medicine and nursing ESP/EMPP courses. This stage necessitated for the researcher to develop a test to tap that sort of competency in the learners concerned. Therefore, two criteria were taken into account to have the construction of such a test guided through its development. First, it was intended to adapt and sensitize the test as closely as possible to the learners' characteristics. Second, the test had to meet practicality concerns for the relatively large-scale administration in this study. Although standard proficiency tests such as GEPT, IELTS, or TOEFL are commonly used in EFL/ESP/EMPP, the attempt was made by the researcher to employ OPT in the current investigation. The rationale for such a decision was that OPT seemed to be relatively fairer than the above-stated proficiency tests in difficulty level. Moreover, the categorization scales were estimated in terms of scores 0 to 12 comprising low level, 12.01 to 16 mid level, and 16.01 to 20 as high level.

It should be stated that the general English proficiency test used in this study comprised all conventional components but listening comprehension. In effect, the test included multiple-choice items of reading comprehension, vocabulary and grammar. The subjects were also required to write a short summary writing task of 80 words about why they have chosen their field of study at university. The results were subjected to the customary psychometric checks. Reasonable measures of reliability (0.88 as compared by KR-21) and validity (0.91 as measured against an actual IELTS 2001) were observed in this pilot study.

**Procedure.** The heads of the departments and the cooperative instructors were contacted and harmonized to have their cooperative sense with the researcher in this study. The first thing, as the normal trend is, was to justify them with regard to the objectives, the instruments, and the administration of the tests. The instructors were promised that the results of this evaluation phase of the study would be analyzed and reported, as soon as possible, regardless of individual instructors or

courses. The OPT test was administered in third week of the semester. In addition, the subjects under test were informed that the results of the test would be considered as both trustworthy indications of their general English proficiency levels and valid information for adapting the teaching methodology to their level. More interesting was their motivation was raised when they were informed that the results of the tests would be released to them individually as soon as possible. To explore the effect and the extent to which EMPP program as the treatment of the experiment has played a part in and contributed to Iranian EFL/ESP/EMPP learners' reading comprehension of their academic texts and their ability in academic summary writing, the design of the study required the readministration of the same test, at the end of the semester, though this security remained there. As it was already mentioned, the pretest phase was conducted in the third week of winter semester.

The time limit set for each administration was 75 minutes. As far as posttests are concerned, since the materials under study and the number of administrations exceeds what had already been predicted, the ESP/EMPP/EAP teachers agreed to administer two of these tests- summary writing and open-ended tests- as separate modules attached to the conventional final achievement tests for the corresponding ESP/EMPP/EAP courses. They, also, allocated a few points to the ESP tests as unseen components of their own tests. To administer the corresponding tests in a reasonable length of time and in order to avoid the probable adverse effect of student fatigue on subjects' performance, the EMPP instructors had made special arrangements to cut down their achievement tests to quizzes. The students were reminded that they were encouraged to be relaxed during the tests and to try to answer all the questions.

**Data analysis.** The data up to this moment could be depicted as the case that there were five categories of scores available for each student. These score were a general English proficiency test (GEPT/OPT), two scores on the corresponding pretest and posttest ESP/EMPP tests were 100 and 50, respectively; a strategy questionnaire, and a thinking aloud protocol. Besides, conducting descriptive statistical analyses for subjects' GEP/OPT and EMPP/ESP/EAP scores across academic disciplines, three major sets of statistical analyses were designed. The first set included t-tests on pretest and posttest mean scores for each academic group to investigate the possible contribution of the current ESP instruction to the Iranian students' reading comprehension performance. The second set of analyses included both one-way and two-way ANOVAs to explore variations in the students' ERSP performance across university subpopulations. Third set of

analyses comprised correlational analysis to determine the relationship between the performance of subjects on the GEP test and on the corresponding ESP test at the end of the programs.

The scores obtained through the tests included in the experiment as the data performance were run through computer, by means of the commonly used factor analysis procedure to estimate the factor loadings for the sake of interpretation of correlations between the observed variables- test scores on reading comprehension and summary writing in ESP proficiency, the hypothetical variables- type of teaching methodology and the type of tasks, on the one hand and between the type of strategy, task type, and proficiency levels in reading comprehension and summary writing on the other; furthermore, ANOVA will be used to estimate any statistically potential significant difference(s) between the means of the experimental groups and those of their relevant control group in relation to the task types, proficiency levels - based on the Oxford Placement Test, OPT- and type of teaching. Finally, a t-test will be used to examine the significance of differences between the pre- and post-tests for each group.

Reflective practice offers practical options to address professional development issues. It encourages practitioners to generate and share their insights and theories about teaching. If adult ESL practitioners and programs are willing to invest time and resources in initial training and sustained efforts, reflective practice can be an effective professional development option.

## **Results and discussions**

**Overview.** In this part the results of the data analysis will be presented and discussed for each phase of the study and the corresponding research questions previously outlined.

**Evaluation of EMPP programs in Iran.** This stage of the investigation was designed to seek evidence of goal fulfillment in the current Iranian EMPP/ESP instruction in light of the learners' GEP level on entry to these programs. To assess this effectiveness of EMPP instruction in Iran, a pretest-posttest design was developed. Two discipline-based ESP /EMPP reading comprehension tests were administered to the corresponding nationwide samples of university students majoring in nursing and medicine, in the third week of the beginning and one week before the end of the semester. A series of matched t-tests were performed on the mean scores for each academic group to explore the main research question this phase of the study (i.e., the possible contribution of the current EMPP/ESP

instruction to the learners' reading comprehension performance). In addition to conducting the main analysis related to the above question, some supplementary analyses were carried out, to provide further information on the current general English proficiency levels of Iranian EMPP/ESP students and to see if any relationship existed between GEP and performance on content-specific EMPP/ESP reading tests.

First, an OPT/GEP, as a general English proficiency test was administered to determine the subjects' GEP status. The OPT /GEP measure was a 100-point test comprising grammar, vocabulary, and reading comprehension. Second, a descriptive analysis was performed to have the data analyzed. Third, in order to provide a succinct account of the subjects' distribution across general English proficiency levels, they were classified into three classes of hi, mid and low levels in terms of their achievements in the proficiency test. In fact, the index based on which the subjects were classified into three English proficiency level was as follows: low level was assigned to those who were scored below 50; mid to (50.01-75) and advanced (76-100). Table 2 indicates the results of subjects' performance across the proficiency test.

Table 2. Statistical Description of Subjects' OPT/GEP Scores

Field	No.	Mean	SD	Low-Hi	Proficiency Levels (%)		
					Low	Mid	Hi
Medicine	180	68	14.60	25-95	18.23	56.42	25.35
Nursing	220	52	13.86	20-90	31.27	44.23	24.50

As Table 2 shows, subjects under study were obviously heterogeneous in terms of their GEP. The range of distribution shows a wider one in students of medicine who obtained a higher mean than the students in nursing. That is, the majority of the subjects in medicine were either intermediate or advanced; whereas the students at low level of proficiency were relatively twice as many as those of medicine at that level.

**Students' perceived views on their own problems in EMPP courses.** The questionnaire was prepared in such a way to include a particular part to elicit students' perceived areas which sounded to them problematic in a way. Fortunately all the 300 except for 5 who were later participated in another separate session completed the required questionnaires. The questionnaires were surveyed, analyzed as carefully as possible. The students comments were summarized into major categories as tabulated in Table 2. The majority of

students put in one way or another on their secondary education with their teachers teaching in high schools lacking any instructional aids such as laboratories and other facilities.

All in all, as it was already stated, two questionnaires were administered to the faculty members- EMPP instructors and subject-matter teachers. The aim was to seek answers to the question if both faculty respondents' answers had any consistency in their perceptions about those needs. In effect, these questionnaires included three types of questions: 1. questions regarding demographic information about the respondents; however, 2, questions to collect the respondents' remarks on major problematic areas along with their probable suggestions for improving the state of the art; finally, 3, the question concerning the importance of some highly recurrent language skills to the students' academic studies and careers as well as concerning contrasts, if any, among perceptions of various EMPP participants.

Fortunately, all the questionnaire copies were completed. In spite of the fact that the general response rate was fairly low, all of the EMPP instructors almost supplied systematic answers to the questions included in the questionnaire. Indeed, they all harmoniously presented certain data on their learners and EMPP conditions. The result of the faculty members' answers dealing with their perceptions of the importance of 11 language skills to students' studies and career was analyzed and compared with those of EMPP students themselves. To show qualitative data across the faculty respondents' written comments, you can refer to table 2.

**Comparison of EMPP participants' perceptions regarding importance of language skills.** To have the faculty members' perceptions about students' needs compared with those perceptions held by the students' themselves, the instructors' rankings of the degree of importance of four main categories and in turn 12 language skills to students' academic studies were fed to a computer database for descriptive statistics. The categorization and the skills as well as the rankings were then aggregated to the previous corresponding data for ESP/EMPP students for analysis of variance (see Tables 3 and 4).

Table 3. Demographic profile of students (n = 300).

Field	Proficiency		
	Low	Mid	Hi
Medicine	31	48	71
Nursing	40	67	43

Table 4. EMPP Participants' perceptions of importance language skills in terms of their categories.

I. Learners'	1. weakness stemming from GE	a. Reading
		b. Vocabulary
		c. Structure
		d. Pronunciation
		e. Fluency
II. Teachers'	2. difficulty in following instructors' oral presentation stemming from their weakness in EMPP listening	f. Discourse/Genre
		g. Summary Writing
		h. EMPP speaking
		3. difficulty in Reading ESP Texts/ Scientific Journals
		4. affective factor, lacking a positive attitude towards English
III. Classes'	5. difficulty in using monolingual dictionaries	1. low level of special-content knowledge
		2. lack of having a particular approach, method and techniques
		3. excessive reliance on translation technique
		4. demotivating and boring climate of the classes
IV. Materials'	1. being old or out of date, out of mode and out of fashion	1. lack of instructional aids such as audio-visual facilities
		2. overcrowded classes
IV. Materials'	2. reading discipline-specific textbooks	2. reading discipline-specific textbooks

Table 5 indicates the best pattern emerging in this study was relative importance of the four language skills. Almost the majority of the subjects presented to you through the above stated elements-students and EMPP instructors as well as subject-matter instructors all unanimously found reading as the most significant skill required of Iranian EFL learners of ESP/EMPP. Of

course, they had emphasized listening, speaking and writing especially summary writing after the reading skill. To put the rate of those proponents of reading in a percentage scale, 82% of the volunteers agreed that the reading skill is vitally important to the students' academic studies and professional careers. Of course, the pertinent literature as well supports the significance of reading in comparison with other skills (Johns & Dudley-Evans, 1991; Chia et al,1999). However, this does not mean that other skills are of less significance because summary writing is also very important in writing brief articles and for note taking, on the one hand. Speaking and listening are as well of great emphasis particularly if there is a global seminar or conference.

Table 5. A brief sketch on EMPP instructors' perceived comments.

Issues raised as comments	No. of items
• Low learners' motivation	28
• Learners' low level of proficiency	27
• Inappropriate teaching method	24
• Heterogeneous classes in their GEP	20
• Presentation by non-ELT teachers	19
• Overcrowded classes	18
• Lack of qualified ESP instructors	15
• Low status of ESP courses in university curriculum	14
• Lack of instructional aids	13
• Inconsistency in ELT methods between secondary education and higher education	12
• No uniform conceptualization of the nature of EMPP teaching among the curriculum designers, faculty and students	11
• Learners' poor knowledge of general English vocabulary	10
• Lack of a research center to survey, & evaluate EMPP courses	9
• Inadequate exposure to English	8
• Overreliance on GTM	7
• <u>Outdated material</u>	<u>5</u>
	Total = 240

As you can see through looking at the tables 4 and 5, even reading through Internet has been emphasized to be important as well though with a less consensus on that in comparison with other subskills studied. In effect, subject matter instructors implied knowing vocabulary may not be so significant that listening and speaking are; they perceived grammar and general vocabulary knowledge as more important to learners' studies than the other participants. However, EMPP Instructors found reading specific journals and their ESP texts as the most important piece of evidence.

Indeed, the first six items addressed the moderate significance of pronunciation and reading general English. One of the items which was nearly perceived (by 48% of the students, 64% EMPP instructors, and 71% of the subject-matter instructors) to be significant was the skill of using monolingual dictionaries. This commonality though seemed to be relatively high, the ANOVA results showed that the perceptions held by these parties are significantly different. In fact, the general finding of this phase is that unlike audiolingualism which lays more emphasis on listening, speaking, reading and writing, the participants in this study give some sort of variety and preference to reading and put it in the beginning of other skills. To highlight the comparison and contrast in terms of EMPP participants' perceived degree of the significance of the language skills particularly reading and writing as the most frequently skilled applicable to our social contexts although other skills are not forgotten.

The statistical comparison of the participants' responses concerning the use of monolingual dictionaries and grammar demonstrated significant differences. All in all, the subject-matter participants emphasized more integrative perspective of language skills; the survey does not reveal an absolute consistency in the perceptions from different parties involved in needs analysis as it has already been stated by Ferris, 1998. All these differences pop up due to their constructive views may construct different versions of the same fact. That is, the conceptions they have developed as the EMPP students' needs in terms of what the tasks should be are different.

**Faculty Members' views on the issues of EMPP teaching.** All the EMPP instructors participating in the survey presented handwritten comments on the main issues and perplexities in EMPP teaching and, with their own suggestions, of course. These comments have been listed in Table 4.4. Among other issues the complaint of low level of general English proficiency, inappropriate methods adopted by teachers with the least expertise in the EMPP and naturally bringing up situations with the least exposure to English, classes with low motivation, negative attitude, heterogeneous in their nature of background knowledge.

One of the reasons why subject-matter instructors were worried about students' inability to use the Internet based issues such as journals was to encourage the EMPP elements including both students and instructors to read scientific textbooks and journals in English. Another point raised as their concern, to some extent, was team teaching of EMPP programs, closer collaboration among EMPP instructors in all activities including holding seminars, material development, joint evaluation of the whole EMPP courses, frequent and

systematic needs analysis.

**Results of teaching reading and summary writing strategies to Iranian nursing and medical ESP learners.** This extra and experimental phase was designed to explore if teaching learners how to learn can really be effective in both EMPP/ESP reading comprehension and summary writing. To do so, as the trend in all the experimental designs is, the researcher exploited a pretest posttest design for each field in which the treatment group received all the mechanisms and strategies of reading comprehension as well as summary writing including the terms, rhetorical structures, discourse training, underlining, note-taking, etc. in addition to the conventional approaches to ESP which was mostly based on translation and grammatical explication. However the control groups were exposed merely to the conventional type of ESP instruction. To do the experiment, in each field two EMPP tests (ESP1 and ESP2) were administered to the experimental and control groups. To explore the relevant null hypotheses formulated earlier in chapter three, a set of between group t-tests were performed on the mean levels of scores on each dependent measure for the corresponding experimental and control groups. That is, first a t-test was conducted on the mean EMPP scores obtained by the two groups to ascertain the homogeneity of the experimental and control groups; on the one hand, and to provide a baseline data, on the other. The result of such t-tests is shown in Table 2 for nursing and Table 6 for medical majors.

Table 6. t-value for Subjects' Performance on Nursing ESP1 (Pretest).

Group	N	M	SD	df	t-value
Control	75	14.65	4.37	148	0.39
Experimental	75	14.52	4.42		

$P \leq 0.05$ , t-critical = 1.96

Table 7. t-value for Subjects' Performance on Medical ESP1 (Pretest).

Group	N	M	SD	df	t-value
Control	75	15.23	4.12	148	0.54
Experimental	75	15.10	4.24		

$P \leq 0.05$ , t-critical = 1.96

As it is indicated in tables 6 and 7, the observed t-values (0.39 and 0.54,

respectively) are much below the t-critical values (1.96, 1.96, respectively). This indicates that the two groups have been homogeneous in terms of ESP/EAP reading comprehension and summary writing performance prior to the treatment. However, as far as the subjects' posttest performance on ESP1, the data analysis done showed that there was a revealing and significant difference between the pretest and the posttest performances of each group irrespective of the particular treatment in this study. Consequently, this difference could, under equal conditions and quite safely, be attributed to the conventional ESP instruction in these programs. Notwithstanding, the experimental groups received some explicit strategy teaching procedures. In order to assess the effect of that particular treatment employed in this investigation, a set of between-group t-tests were applied to the means of posttest scores ESP1 and ESP2 for the two groups. Furthermore, the same ESP2 was administered to both experimental and control groups after two months as a delayed measure of ESP reading comprehension to explore the probable retention of the effect of explicit strategy teaching procedures. The computation results of the t-values for posttest measures are shown in Table 8.

Table 8. The computation results of the t-values for posttest measures.

Test	Groups						Df	t-value
	Control			Experimental				
	N	M	SD	N	M	SD		
ESP1	75	17.64	3.47	75	19.97	4.32	148	3.27
ESP2	75	13.43	3.11	75	15.72	3.37	148	4.35
ESP2(The Delayed Measure)	75	12.05	3.66	75	14.96	3.82	148	4.12

$P \leq .05$ , t-critical = 1.96

As Table 8 demonstrates, the observed t-values for ESP1 (3.27) and ESP2 (4.35) exceeded the t-critical value (1.96). As a result, the corresponding null-hypothesis is safely rejected. This implies that the experimental group outperformed its control counterpart on both measures of ESP reading comprehension and summary writing employed in this phase of the study. Except for sex (since all the subjects studying in Nursing were found to be females) almost all potentially intervening variables (i.e., major, teacher, methodology, content, age, etc.) were controlled in this experiment, the higher mean scores of

the experimental group may be attributed to the effectiveness of the particular treatment for this group (strategy training). Besides, the significant t-value in Table 2 for the difference between mean scores of the groups on the delayed measure of ESP confirms the same trend and attests retention of the positive effect of strategy teaching after about 10 weeks.

Although the schema-based research in ESL/EFL reading comprehension is to partly limited in scope, the findings of the current research are consistent with that literature in schema-based research in EFL reading comprehension (Widdowson, 1977; Carrell, 1983; 1985; 1987). In addition, the findings of this research support studies dealing with the effect of rhetorical consciousness-raising activities to play their part as metacognitive strategies within discursal and genre-based pedagogy in ESP/EMPP reading comprehension (Tian, 1990). In fact, explicit metalinguistic explanations might have a great contribution in teaching ESP reading comprehension skills.

### **Conclusions and pedagogical implications**

**Overview.** This investigation was to study the integrative effect(s) of strategically-based, reflective as well as task-based types of teaching on Iranian EFL/ESP/EMPP learners' reading comprehension and summary writing, particularly in nursing and medicine courses. The main interest was to scrutinize the possible contribution of incorporating task recognition, presentation of task types, analysis of learners' learning strategies in terms of task types in reading comprehension and summary writing in nursing and medical ESP.

### **Conclusions**

This study addressed itself to answer the two questions previously raised. The questions aimed at exploring if there were differential effects between the integration of reflective and task-based type of teaching and the conventional approaches to teaching reading comprehension and summary writing in nursing and medical ESPs, respectively, in Iran. The results of data analysis show that the current nursing as well as medical ESP programs can generally succeed in materializing the objectives set for the relevant courses if the courses could be presented in terms of tasks and taught through reflective type of teaching. That is, there were statistically significant indications of contribution of these courses to learners' reading comprehension performances, as operationalized by differences between pretest and posttest performances, in the two fields; the overall reading

comprehension ability levels of the learners in both fields on exit from these courses were much approaching to the expected criterion established in this study. In short, this summative evaluation of ESP programs could document the 'accountability' of this approach to foreign language teaching at Iranian universities.

The assessment findings of the learners' general English proficiency (GEP) on entry to the ESP programs showed wide ranges of variation across academic disciplines, in this sense between nursing and medical majors. All in all, the results indicated that the general proficiency level of the ESP learners was very low before being admitted to the ESP courses. While there was a heterogeneity in learners general English proficiency in academic fields-nursing and medicine; a strong and directly proportional relationship was detected between learners' GEP levels and their performances on ESP measures. That is, medical majors were found to enjoy a higher mean in GEP with a statistically significant difference from that of nursing majors. One conclusion drawn is that medical students can gain more benefit in ESP achievements than the nursing ones.

Concerning the integration of reflective and task-based type of teaching as an approach to teaching summary writing in nursing and medical ESPs. The results of data analysis showed that the integration of reflective and task-based type of teaching had statistically significant indications of contribution to the learners' summary writing, both in nursing and in medical fields, as operationalized by differences between pretest and posttest performances, though these differences were more significant in medical majors. Of course, this might again be indicative of the supposition that there is a direct relationship between GEP level and the degree of success in ESP achievement.

Besides, regarding the instructional strategies correlation with the learners' proficiency levels and the task types the two strategies recapturing instruments, think-aloud protocols and questionnaires, complemented each other by providing partly similar and partly different data. The similarities and differences observed between the two devices can mainly be ascribed to factors such as subject-related language proficiency, educational background, as well as attitudes and motivation. Most important of all is that the Think-aloud data consist of a stream of spontaneously provided descriptions; the subjects' comments on their activities are probably more authentic and less structured than their answers on a formal Questionnaire, which is by nature a guiding instrument.

The majority of the similarities found in the two sources, questionnaires and think-aloud reports were taken under view and scrutinized when the tasks had

to be performed in a language in which the subject's proficiency was higher. A higher level of language proficiency may have made it easier for the subject to perform the task, since it required less mental effort on their part. Thus, the subjects could direct their efforts to the Think-aloud report. It was in this case that the expression of the strategies actually employed in the reading/writing tasks were similar to those indicated on the Questionnaires, which is a text-independent data-collecting instrument answered with conscious deliberation. A lower level of proficiency, on the other hand, may have made the task to be performed more difficult, and thus it required a greater mental effort on the part of the subject.

Being originally used by researchers to study reading processes (Katilin, 2000), the think-aloud technique is mostly utilized by typical teachers termed reflective teachers who model it when their students processing a text. More interesting is the fact that this technique has not only an instructional function but it also plays its role as an assessment to the foreign language learners. For example, those students who were taught and asked to think aloud while reading had better comprehension than students who were not taught to think aloud, according to a question and answer comprehension test. Even more interesting point is the case that supports Silven and Vauras (1992) that students who were prompted to think aloud as part of their comprehension training were better at summarizing information in a text than students whose training did not include think aloud. In fact, the research results indicate that good readers monitor their comprehension during reading; "they know when the text they are reading or listening to makes sense, when it does not, what does not make sense, and whether the unclear portions are critical to the overall understanding of the piece" (Keene & Zimmerman, 1997, p. 43).

After analysis of the Think-aloud protocols, it was found that there were certain strategies that good readers made use to process text, including predicting, clarifying, visualizing, using prior knowledge, building new connections, summarizing, and synthesizing. The subjects under think-aloud study reported: it seemed that the easier the task of reading/writing was, the freer they were to contemplate on their own mental activities simultaneously to their reading and summary writing.

However, when the reading/writing task increased in difficulty, the subjects' thinking-aloud reports on strategy used became scarcer, and the differences between the reports in the two instruments increased. This finding is in line with the reports made by previous researchers. Thus, a decline in strategy use can relatively be inferred to the increase in the text difficulty.

All of these facilitations happen only when curriculum development is

based on an exact and fair needs analysis that is an activity in which an ESP teacher plays an important role. This might be the reason why it is not an easy job to be a teacher of ESP, but it is a very challenging one. And that is the reason why creative, flexible and self-aware teachers find it interesting, exciting and rewarding. What is more important is a demonstrated need. In this way teachers should follow student's target situation needs and learning needs, or as Ellis and Johnson (1994: 26) say we are supposed to focus on the systems, procedures and products that are at the heart of what the students do in English and to be able to deduce from this knowledge the language needs of each type of learners.

### **Pedagogical implications**

**For foreign language curriculum planning and ESP/EMPP course design.** Material development has been, for a long time, a subject of interest to many ESP community members. As far as material development is concerned, working towards greater content specificity has been stressed. This is in effect the current trend conducted under strict supervision of SAMT. Almost all the thirty ESP books recently published by SAMT possess such tendency towards content specificity.

However, the majority of Iranian university students coming to ESP courses find it difficult to cope with tasks requiring an independent and creative approach since the books have not been written based on field tasks. That is, they show themselves unable to analyze tasks, to identify and locate potential sources of information, to select and use the most suitable materials, and to present the results in an original manner and in an appropriate format in English. However, based on their training they received, certain procedures were taken to provide training in learning strategies for independent academic tasks to help the students under study improve their performance and overcome difficulties they encounter in those areas. Responses to the method have been extremely encouraging. The majority of the participants involved in this study indicated that this approach prepared them better for their academic needs in English and developed their autonomy as learners.

As it was stated in the conclusions there was found a relationship between the learners' GEP level and ESP achievement rate. That is, those subjects who had already been well equipped with a good sort of knowledge in GEP, they were found to be more successful in ESP performances. By this token, the results of the evaluation of ESP/EMPP programs indicate that the current ESP/EMPP instruction is not at least at present capable of materializing the planned objectives. But as the current study showed if the main hypotheses of this

research are operationalized throughout the country, it can be an appropriate remedial or renewed procedure; on the one hand; and another implication of this research, as far as there was a meaningful relationship between the GEP level and ESP achievement, is the necessity to invest in general English teaching as much as possible as a safer shortcut and as an economical approach to obtaining the overall objectives of ELT and contributive to ESP/EMPP in this case.

Consequently, the suggestion which seems worthy of being made here to have a contribution to improving the state of affairs in Iranian ELT/ESP/EMPP contexts is: 1. to offer the foreign language curriculum planners and practitioners to reconsider GEP and ESP instruction as tightly interwoven system rather than one single system of English language teaching. As far as the relation between GEP and ESP is concerned, one of the results of this study was that improvement in GEP improves ESP but it does not mean that they are single system. That is, it is safe to claim that ESP is a branch of ELT. However, it does not mean that one has to rely heavily on product-oriented translation activities and reduce ESP reading instruction to some non-communicative comprehension practices at sentence or paragraph level. Therefore, through needs analysis, strategy analysis, and task analysis which are all concern of a reflective teacher, English departments with such experts can assume the responsibility of designing, implementing, and evaluating such courses for Iranian university students.

Another suggestion to make for instructors is to utilize a wide range of teaching-learning activities which resemble the authentic tasks they are expected to perform in target academic settings; in a word to direct ESP programs more towards content-based English programs which tend to task-based type of teaching as the chief concern concerns of this study. To implement such a program in a full scope, it requires enough credits with sufficient time span which is normally much more than what it has been prescribed in Iran.

So, another suggestion is to refer to the insufficiency of credits/hours allocated to both GEP on entry to university and ESP during the courses. That is, to have enough exposure to ESP or even GEP, two ways are suggested: 1. to increase the number of credits or, 2. to hold some make-up courses for the students.

**Implications for ESP/EMPP material development.** It appears impractical to use non-adapted course books in a task-based type of teaching framework because in TBT we cannot pre-select language items except for very short courses. The implication, here, is that in places where an education authority or an institution holds control of materials, it may prove a little awkward to use task-

based approach. In these situations Richards' suggestion is to use only elements of the approach. So the emphasis here is on the teacher or course designer to provide the necessary tasks and probably also supplementary materials. That is, provision of a list of principles concerning the effective task-based type of teaching, the characteristics of a reflective teacher, and account of strategies for given tasks can be of great use both for teachers and learners. This can even work better if they include strategies that are specific enough so that they can be really used.

For example, the steps to follow in developing classroom activities are: 1) identify target task; 2) provide students with language models; 3) concentrate on the "enabling skill. A string of interrelated tasks can be devised for the speaking class, for example, as "project work," (Hedge, 1993). Such a strategy-oriented teacher will not consider the students as a bench-bound listener, but encourages students to take part in the formulation and at times may play the principal role in it. Here the student will be aware of alternatives and may even have an "as if" attitude toward these, and he may evaluate information as it comes.

In fact, both the teacher and the student are in a more cooperative position with respect to what in linguistics would be called "speaker's decisions." The hypothetical mode requires reciprocal teaching in which students and instructor take turns asking questions, summarizing, clarifying, etc. The instructor provides models but by way of hints and reminders the teacher coaches students into fuller practice in scientific discourse and independent reflection with respect to discourse strategies for becoming more fluent – strategies like making analogies, defining terms, and the like.

## **Suggestions**

This study proposes certain suggestions including some for Curriculum development. On this basis the researcher could make an initial analysis and plan of the guidelines for the design of the new curricula. The following items became obvious:

1. A learner- and learning-centred approach - a move from teaching to learning.
2. A communicative and task-based approach with authentic communication and learning tasks.
3. Emphasis on developing language skills and strategies.
4. Emphasis on learning to learn, encouraging creativity.
5. ESP in higher classes - better preparation for work or study tasks.
6. More intensive use of the modern language to develop language awareness.

7. Variety in working methods.
8. Use of information technology, multimedia, E-mail etc.
9. Encouraging learner autonomy, self-assessment, cross-cultural awareness.
10. Project work (not only traditional tests).

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