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Analysis of Student's Errors in English for Medical Purposes

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SUMMARY

Medical students need to be aware not only of their present and future needs during the course of medical English but also of difficulties and problems they possess concerning the knowledge of general English.

The aim of the study was to collect and analyze students' errors as markers that would point to the areas of English where additional teaching and instruction is needed in order to be able to participate in the course of medical English.

The study was carried out in 2009 at the Faculty of Medicine in Niš and included 200 second - year medical students. It relies on data obtained from grammar-based placement test and from conversations with the students.

Although an intermediate level of general English is necessary for participating in the course of medical English, the results show that there are areas of language which present problems to the students and need to be particularly emphasized and practiced.

Students' errors and comments on their problems may serve as useful diagnostic markers. Using these data, along with information obtained in direct communication with the students, the teachers may develop a plan which would help broaden the knowledge and enable the students to become more confident in professional communication in English. It is very important and useful to take advantage of the medical context because it presents a source of great motivation for the students.

Key words: English for medical purposes, error analysis, context-based teaching

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INTRODUCTION

Compared to other forms of English language teaching, English for special purposes (ESP) is in a privileged position because it is set in an academic context that primarily favors learning (1). This provides it with an opportunity to become a powerful educational device and in order to achieve this goal, teachers need to adopt a critical view of learning and studying language and integrate both subject matter and students' needs (2). One way of obtaining information about students' needs, interests and aspirations is by asking them directly which would allow teachers to make important decisions concerning course objectives, select appropriate methodological principles and design a suitable ESP course.

In order for students to be able to participate fully in EMP classes, they need to possess a good knowledge of general English at an intermediate level. Without this uniformity of general English knowledge, learning EMP would represent a great problem. In particular, it is important to insist on specific areas of language which are more common in medical English. Lack of English language skills is a major obstacle because students have to master terms used in medicine, to be able to understand formal professional texts and authentic materials, to write medical articles, make professional presentations and participate in discussions on medical issues. Therefore, it is very important for students to be aware not only of their language learning needs but also of difficulties and problems they have concerning the English language. This can be determined by means of diagnostic tests that would focus on problem areas in English language learning and by direct conversations between teachers and students. This study focuses on problematic areas in learning English in medical academic context. It aims at collecting and analyzing students' errors and reported problems in order to pay particular attention to language elements that present the greatest difficulties to medical students at the Faculty of Medicine in Niš. The information obtained could be used as an important marker that would inform the teacher about the areas where additional teaching and instruction is needed.

EXAMINEES AND METHODS

The study included 200 second-year medical students from the Faculty of Medicine in Niš. It consisted of two parts - the data were drawn from a placement test and from teacher's own observations, direct conversations with students during lectures or in consultations.

The placement test included major English grammar points - tenses, modal verbs, nouns (abstract, mass nouns and derivations), adjectives, Wh-questions and yes/no questions. These grammar elements were

favoured due to their high frequency in medical English. The test was in English and students had 60 minutes to answer the questions. The percentages were drawn from the obtained answers.

As for the second part, it relied on the teacher's personal observations of the students' difficulties combined with an interactive method which was carried out through oral communication with the students. The students were asked to talk about the test, name the part they thought was the most difficult and also to state the linguistic elements not included in the test but which still represent a problem. The obtained answers were compared with the results for the placement test and analyzed.

RESULTS

Out of 200 students taking the test, seven of them were not taken into consideration for this analysis since they had answered all the questions correctly.

In the first question, the students were asked to put the given adjectives into appropriate forms (comparative or superlative) in a sentence. The majority of students (86.5%) answered correctly. However, it is interesting to note that among the wrong answers the most common mistake (19.3%) was with the irregular forms of adjectives (such as little/less/the least).

The second question dealt with the use of nouns. Out of 193 students, 65 (33.6%) had at least one wrong answer considering the irregular plural (such as datum/data, appendix/appendices). An even greater percentage of students (38.5%) made mistakes in noun-verb agreement with irregular countable nouns (such as people and news).

Overall, the part of the test that dealt with Wh- and Yes/No questions showed that the students possess a good knowledge of their usage (83.7% correct answers). The analysis of the wrong answers revealed that the most common problem was concerning the word order in the question (for example: Where *he* was treated last time?)

As for derivations, 49.9% of students provided correct forms. However, it is interesting to note that the most common problem here was spelling. As much as 82 students (42.4%) had at least one spelling error in their answers.

Modal verbs were also included in the test in the form of multiple-choice exercise. The analysis of students' errors demonstrated that 15.9% of students had provided only one wrong answer. In total, out of 193 students, there were 45 students (23.4%) with wrong answers. Despite the relatively good percentage of correct answers (76.6%), it should be pointed out that the students emphasize modals to be one of the most difficult areas for them.

The last part of the test was the multiple-choice exercise in which the students were asked to put the verbs into correct tense in a sentence. The results

show that there were 43.9% wrong answers (84 students). Similar to modals, the students stated that the correct use of tenses also presented great difficulties despite the fact that they were familiar with the rules of their usage.

The second part of the study included an interactive method based on conversations between the teacher and the students. During the lectures and in consultations, the students had an opportunity to draw attention to some problematic areas which need additional work and instruction. Along with the use of modals and tenses, the students emphasized that they need more help with the use of passive and exercises in class showed that additional work is needed with relative pronouns.

DISCUSSION

A good knowledge of general and medical English is a prerequisite for professional improvement and progress. For English in medicine course to be successful, it is necessary that students possess an intermediate level of proficiency in general English. However, despite their predominantly good knowledge, it is often the case that students of medicine need additional help and instructions concerning specific linguistic areas that present problems even in academic context. It is the responsibility of the teacher to work with the students in identifying and understanding these problem areas and to try to integrate the findings into a coherent course design in order to achieve the objectives set before them.

Placement test is one of the useful methods for finding out what the students lack in terms of language proficiency and whether they need additional teaching in some areas. In this sense, placement tests are also diagnostic. Their formative characteristic is emphasized when the results are used in forming the content of the course. These kinds of tests should be used as approximate markers and should therefore be applied very carefully [3] with the aim of determining not only the negative but also the positive factors - the learning potential that can be used during the course. The results of the test represent a basis in the teacher - student interaction, a source of valuable information that influences the content and methods used in the course and helps improve future work.

Another useful method is observation when the teacher monitors the work of the students and discusses their problems in direct conversations. The teacher can rely on the students' opinion because they are adult learners with well developed learning strategies and they are able to perceive their difficulties and needs in language learning. This part of the research uses qualitative case study methodology which is different from standard questionnaires and tests because it does not provide numerical data. However, qualitative case study methodology offers an appropriate insight into the field of

research from which important conclusions and decisions can be made.

The information obtained from the test results, combined with the conclusions drawn from communication with the students, provided a better understanding of the difficulties and needs in English language teaching and learning. Integrated within the course design, the data showed where further instruction is needed. If we take the problem of derivations, for example, the test shows that it was the part with the most errors. However, since a great number of them were spelling errors and observation in class shows that the students are generally able to produce correct forms orally, more attention should be directed towards improving the writing skill. The second problematic area, according to the test results, is the use of English tenses. A careful investigation of this problem revealed some interesting points. Namely, when asked to describe the use of a particular English tense in isolation and provide examples, the students generally show a satisfactory level of knowledge. On the other hand, the tests present a difficulty and the students complain that the tasks with tenses take them the most time to finish and they are not certain about the answers. The problem is also apparent in class when they are writing (for example, describing and organ or system) and speaking (in medical interview). It is assumed that the source of the problem is in part the previous high school education that relied mostly on Grammar - Translation Method which produced learners equipped with a good knowledge of theory and artificial sentences but with little practical use. We believe that a way to treat this issue is to go through the English tenses and bring the most common to the fore (such as the present and past simple, past perfect). As with grammar in general, the tenses are also integrated within the medical context and practiced through the use in professional situations. For example, the medical interview is a suitable form because it includes the present complaints (present simple tense), past conditions (past simple tense) and patient's history (past perfect). The medical interview is also appropriate for practicing the use of Wh- and Yes/No questions. The problem of word order in questions can be corrected by constant practice when the students ask and answer questions and adopt the correct forms through practical usage.

Even before proceeding with medical English course, it might be useful to go through major grammar points. In this way, students would be alerted in the direction of general rules and attention could then be directed towards some particularities concerning medical English. One of the issues that would come to the surface is the use of adjectives and nouns. In particular, the students will revise the comparison of adjectives and irregular plural of nouns which will later come in useful, for example, when describing the levels of pain or working with medical nouns which have Latin origin and are often characterized by irregular plural.

The results of the placement test showed that the students have a pretty good knowledge of the modal verbs (76.6% correct answers). However, the students emphasize that they are not always sure which modal verb to use and in some cases they even resort to avoiding using any modal. This problem becomes particularly evident in medical interview when, for example, a student is expected to give suggestions, recommendations or even orders to a patient. Again, modal verbs are placed in medical context and the medical interview is used as a valuable base for applying the students' general knowledge of modals and widening it with shades of meaning. Hedging is another point in the course when students have an opportunity to practice with the modals in order to express beliefs, a lack of certainty and to soften what is said [4]. In other words, hedging is a device which is used to lessen the impact of an utterance [5]. The advantage of teaching hedging to students is that it enables them not only to achieve greater delicacy of meaning but also to acquire a routine of using modals verbs.

One of the points not included in this placement test but observed in class was the wrong use of relative pronouns. For example, the students often fail to use the correct forms when referring to people, time or place. So, a brief explanation and a reminder of their use would be a good starting point before moving on to the phase of the course when the students practice writing scientific articles and when the use of relative pronouns is necessary.

In addition to the problems indicated by the placement test or observed by the teacher, the students also pointed out the difficulties with the passive. Since the passive is one of the major characteristics of medical English it is obligatory for students to gain a good mastery of this grammar point. A great opportunity for practicing and expanding the knowledge of the passive emerges in the part of the course when the students write scientific medical papers, case histories and case studies. Here, as well as with all other grammar points, the students are more motivated to learn when they realize that the material presented will be useful in their future careers [6]. Only then will the acquisition of language come in more naturally.

It should be pointed out that this diagnostic placement test targeted specific grammar points because of their frequency within medical English language which is characterized by precision, clarity, short sentences, and passive constructions. Contrary to ESP which often favors one specific linguistic skill, in English for medical purposes all four skills (listening, reading, writing, speaking) need to be equally practiced and placed within the medical context which provides a source of great motivation for students.

CONCLUSION

English for Special Purposes, in our case EMP, is one of the most demanding areas in the process of teaching and learning. Each group of students is different and their needs, demands and difficulties are ever-changing. There are no ready-made directions and rules for teachers to use when designing the course because they are faced with a program which is constantly evolving.

For this reason, it is necessary to monitor the students directly, establish a close contact and keep in mind the ultimate goal of the course which is to enable them to use English in real life professional situations. This study has shown that the road towards the realization of the goals must necessarily lead through the difficulties and problems the students face when learning English. The best way to help the students overcome the obstacles is by taking advantage of the specific context, in our case medicine, and incorporating the necessary grammar elements into a well-planned course design.

If the course is to be effective and successful, the teachers should use every available source of information. Therefore, we believe that a combination of the placement test results which would provide a diagnosis of the problem areas and conclusions drawn from observations and direct conversations with the students would be of great help in 'filling in the gaps' which would in turn enable the students, future doctors, to develop from *learners* to successful *users* of English in professional communication.

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ANALIZA STUDENTSKIH GREŠAKA U PRIMENI ENGLESKOG JEZIKA ZA POTREBE MEDICINARA

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Sažetak

Veoma je bitno da su studenti medicine svesni ne samo svojih trenutnih i budućih potreba u odnosu na medicinski engleski jezik, već i poteškoća i problema koje imaju kada je u pitanju poznavanje opšteg engleskog jezika.

Cilj ovog istraživanja bilo je prikupljanje i analiza studentskih grešaka koje mogu da ukažu na oblasti engleskog jezika u okviru kojih je potrebno dodatno podučavanje kako bi učestvovanje tokom kursa engleskog u medicini bilo uspešno.

Istraživanje je sprovedeno 2009. godine na Medicinskom fakultetu u Nišu. Učestvovalo je 200 studenata druge godine medicine. Zasniva se na podacima dobijenim putem testa iz gramatike i putem direktnih razgovora sa studentima.

Iako je za uspešno učestvovanje tokom kursa engleskog u medicini neophodno znanje opšteg engleskog na srednjem nivou, rezultati su pokazali da postoje oblasti jezika koje predstavljaju problem studentima i koje zahtevaju dodatno uvežbavanje.

Studentske greške mogu da budu korisni dijagnostički markeri. Koristeći ove podatke, zajedno sa informacijama dobijenim iz razgovora sa studentima, nastavnici mogu da razviju nastavni plan koji bi pomogao u širenju znanja i omogućio studentima da steknu samopouzdanje u profesionalnoj komunikaciji na engleskom jeziku. Veoma je važno da se nastava engleskog jezika smesti u medicinski kontekst jer je to izvor velike motivacije za studente.

***Ključne reči:* engleski za potrebe medicinara, analiza grešaka, učenje zasnovano na kontekstu**

