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DEVELOPING ESP STUDENTS ENGLISH SPEAKING, READING, LISTENING, AND WRITING SKILLS IN INTERNET-ASSISTED PROJECT WORK

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Abstract. *The paper discusses teaching ESP to university students of psychology. The study researched the method and implications of teaching English professional communication skills through the medium of students' project work conducted on the Internet-assisted basis. The objective of the study was to reveal the advantages of combining such an advanced teaching method as learners' professionally oriented project work in the target language with their regular Internet search on professional Internet sites in English with the purpose of finding project relevant materials. Methodologically, besides observing during one academic year students' learning when working with the authors' ESP coursebook Psychological Matters (with both project work and Internet search included as mandatory activities into the framework of every unit), the research was based on experimentally testing learners' English speaking, reading, listening and writing skills development in the middle and at the end of the course. Students' self-assessment of their communication skills development was also included as a research method. The learning project done by students through the academic year was compiling in English A Short Psychological Encyclopedia. The Internet search for the project was done by them on professional English Internet sites for psychologists, and the results of their reading and listening during that search were presented in the classroom in the forms of speaking and writing in English. The study revealed great benefits of introducing the suggested method into ESP courses at tertiary schools. The learning outcomes were demonstrated to be substantially improved when using the suggested approach.*

Key words: *teaching ESP, project work, Internet search, professional communication skills in English*

1. INTRODUCTION

According Project method has already been known in foreign language teaching for decades (c.f., for instance, Fried-Booth, 1996; Hutchinson, 1994) but it is only with the advent of the Internet that quite new vistas have opened up for using it for ESP courses at tertiary schools. The purpose of this chapter is to discuss the ways of introducing Internet-assisted project work into a course of English for professional communication designed for students of psychology. The approach has been developed by us and fully embodied in our coursebook of English for students of psychology called "Psychological Matters" (Tarnopolsky, Kozhushko, et al., 2011).

But before discussing the developed approach, our own definition of project work should be given:

Project work is based on project tasks, which model real-life productive activities and require relatively long-term fulfillment (from one or two weeks to a whole semester, academic year, or even longer). Project tasks are assigned to individual students or groups of them, and for fulfilling such project tasks, students need to share their responsibilities and functions, divide the task among themselves, work autonomously in and out of class (with only the consultative assistance of the teacher) to complete the part of the entire project assigned to them. At the end, they report the completion of their part of the project to other students and the teacher demonstrating the results of that completion in some material form. When the entire project has been completed by all the students in the group, the final results also need to be reported and demonstrated in some material form.

Project method is ideally suited to ESP teaching at tertiary schools due to several of its intrinsic characteristics:

1. Project work allows creating the learning environment that most fully models, or imitates, the conditions existing in the professional environment where students are going to work in future.

2. Students' project work is always much better motivated than many other learning activities. It is so because, after completing project assignments, students get some material products as the result of their totally practical efforts (e.g., preparing a class newspaper in English). Thus, the learning outcome is tangible, and that generates higher positive motivation than 'abstract' learning. In ESP, such visible outcome of project work is future profession-oriented, which may also enhance the motivation of students who are always interested in their future careers.

3. When doing project assignments, students need to search for and collect information for completing them. In ESP it is certainly professionally meaningful information that is researched. Such research becomes the basis for developing professionally oriented information research skills, as well as the skills of self-teaching in the field of professional activities using the target language for those activities. In general, in project work working with professional materials/information in the target language has a dual function: developing target language communication skills and expanding professional knowledge.

4. In project work different foreign language communication skills (speaking, listening, reading, and writing) are much better and more organically integrated than in practically all other learning activities. When preparing their projects, students inevitably have to read very many materials in the target language that they themselves find in their information research (for instance, the information research done on the Internet). Such information research may also be bound with listening because a lot of professional information can be obtained from audio materials found on the Internet. Besides, students listen to each other when discussing their projects. This develops their reading and listening skills and makes reading and listening in the target language an organic part of all ESP project assignments. Those assignments, the process of completing them, and the intermediate and final stages of their completion are always being discussed by students in the target language (speaking) while project results (again intermediate and final) are always presented in writing. Therefore, all the four basic communication skills are

inextricably bound together into a single unity which improves their acquisition since the development of one of the skills helps the development of all the others.

The last, fourth, characteristics of project work in the conditions of its use for ESP teaching and learning shows the broad opportunities of project work combination with students Internet research implemented with the aim of finding information for completing ESP learning projects.

2. PROJECT WORK AND INTERNET RESEARCH IN ESP TEACHING AND LEARNING AT TERTIARY SCHOOLS

Warschauer, Shetzer, & Meloni (2000) distinguish three principal functions of the Internet in learning English as L2:

1. Communication via the Internet and doing joint projects via the Internet. Communication via the Internet (e-mails, forums, chat rooms) can be with native speakers, the teacher, other students of English – from the same academic group, the same university, other universities in the same country, and from universities of other countries. Joint projects can be done in the same way, for instance, a project on researching the ecological situation in two big cities of two different countries. This project may result in writing a joint report that is presented by all participants. Presentations can be held simultaneously in the classrooms of different universities if the participants were working via the Internet only – with no live contacts and no opportunities of coming together for presenting the outcomes of the completed project. The intensive written communication required by such a project cannot but have a favorable impact on developing students' productive and receptive communication skills.

2. Information research on the Internet. This research provides students with numerous sources for completing their learning assignments.

3. Publication of students' works in the Internet network. If a group of students together with their teacher create their own web-page in English and the best students' works, such as essays, are published there, it creates additional and very strong stimuli for learners to improve their communication skills, especially their writing skills. It is so because the web page can be accessed and read by many different people, not only the students themselves and their teacher. This creates broad potential readership for what the students have written – making them try and do their best in order to produce pieces of writing that could interest and attract all visitors to their web-page. Besides, in such a case, prerequisites are created for publishing students' own online journal in English which makes their English studies even more motivated uniting all learning efforts in the framework of one meaningful and creative communicative activity.

It can be seen from above that students' projects done via the Internet are considered by the authors as the primary function of Internet use in the language classroom. They put the Internet research done by students in the second place among its leading instructional functions. But a number of other authors believe that it is Internet research that should be considered as the most important task of the Internet in language studies. For instance, Harmer (2001: 146) emphasizes that the Internet is an inexhaustible source of information, especially of information in English which makes for its broadest use in the

process of teaching/learning. Though this information is mostly authentic, i.e., prepared by target language native speakers for other native speakers, however, it can be used for teaching/learning purposes, especially in what concerns ESP teaching. This is equally true of ESP project tasks which certainly require a lot of professional information in English and, when doing such work at universities outside English-speaking countries, it is mostly (and sometimes only) through the Internet that sufficient professional information for learners' project can be found. This point of view is shared by Barrett and Sharma (2003) who also consider the Internet function of being the source of professional information in English as its primary function when using the Internet for teaching and learning Business English.

It is due to such considerations that we also prioritized the functional significance of Internet research in comparison with Internet communication in ESP students' project work. Our main reason for such prioritizing was due to the fact that the Internet research while doing such work can be organized with no problems at all and can occupy a considerable place in everyday teaching/learning process. On the other hand, the Internet communication for doing learning projects (for instance, Internet communication for doing a joint inter-university ESP learning project) may be used more episodically because it is much more difficult to organize. Therefore, it was on Internet research that we based our approach to developing ESP students' English speaking, reading, listening and writing skills in Internet-assisted project work. How that approach was practically implemented is discussed below.

3. THE PRACTICE OF DEVELOPING ESP STUDENTS' ENGLISH SPEAKING, READING, LISTENING AND WRITING SKILLS IN INTERNET-ASSISTED PROJECT WORK

The project work in our coursebook "Psychological Matters" was designed following the assumptions discussed above. Actually, that coursebook and the ESP course for future psychologists based on it epitomize a grand learning project beginning with *Unit 1 – Psychology and its Branches* and ending with *Unit 10 – Psychological Counseling*. What through learning project common for all units is the preparation of *A Short Psychological Encyclopedia*, a kind of reference book wherein students are asked to summarize the professional content learned during the course. Based on the materials covered in each of the units, every *Encyclopedia's* chapter summarizes the unit's content and provides additional materials on the theme not covered in the unit. In compiling the chapters, students are encouraged to make use of the materials found on the Internet (professional websites in English) during their *Internet-search classes*. Every student is asked to prepare for each chapter their own version for possible inclusion in the *Encyclopedia*. In turn, all versions are discussed in class, and the best version(s) is chosen for inclusion but not before undergoing further editing by a specially appointed students' task force. The final edited version is then illustrated and discussed anew before being included in the *Encyclopedia*. An example of such an assignment from *Unit 8 – Psychotherapy* is given bellow (Tarnopolsky, Kozhushko, et al., 2011a: 223).

In the two pictures above you can see the examples from the practice of art therapy – a branch of psychotherapy that is currently very popular and that you have not yet discussed.

*The eighth task for preparing one more chapter for your **SHORT PSYCHOLOGICAL ENCYCLOPEDIA** will be connected with art therapy, a branch of psychotherapy. This explains why the eighth chapter planned for the Encyclopedia is to be called **Art Therapy as a Specific Branch of Psychotherapy**.*

You are now going to conduct your Internet search. Use the websites your teacher has recommended and your own researched sites. Search for information on art therapy, its practice, distinctions, and differences from other branches of psychotherapy. You are required to inform your teacher what sites you are going to work on so that all of you have different information sources and collect different information.

After your source(s) is chosen, start collecting information from the Internet. Your goal is to prepare a 5-minute oral presentation on art therapy and its practice on the basis of the information found. You are also required to write a short article on this issue for the Encyclopedia. All this will have to be handed in the class after the next. Your short article is to be of about 150 words in length.

In the coursebook "Psychological Matters" not only every single unit out of ten of them contains project assignments for students, those assignments being of the kind similar to the one in the example above. Project work also takes at least some part of the learning time in the classroom during numerous classes all through the academic year when students use the coursebook under discussion for their ESP studies. The same concerns students' out-of-class work (home assignments). That makes the ESP course a kind of "project course" where student's efforts are to a large extent directed at completing their future-profession-oriented extra-linguistic project using the target language as a tool for its completion.

It is important to emphasize that Internet research on which the project work is to a great extent based is something organically built into the structure of both the course and the coursebook. It is achieved through the introduction of special *Internet search classes* into both of them. Every *Internet search class* is a two academic hour class period held in one of university's computer classes/laboratories and totally devoted to students' mandatory Internet search done under the teacher's supervision. The search is done to collect materials for doing some creative learning assignment in the framework of students' project with the results to be reported during one of the following class periods held in a traditional classroom. Such Internet search classes are held approximately once in three weeks – as every sixth or seventh class period in the framework of the entire ESP course. Internet search classes are used to achieve a double purpose. First, they make students' Internet research well-organized, directed and absolutely unavoidable and mandatory for both teachers and learners. That makes Internet research an essential part of the teaching/learning process. Second, an opportunity is created for teaching students the best and most efficient ways of Internet research. Students are getting inured and accustomed to life-long use of the Internet as the most effective way of obtaining information resources for doing different kinds of jobs and tasks.

The in-class organization of a substantial part of students' Internet research in the process of doing their project tasks has a number of advantages:

1. It solves all possible problems with students having difficulties in accessing the Internet out of class. Universities nowadays are mostly sufficiently provided with Internet facilities to organize students' computer work in the classroom. But in some countries (like Ukraine) not all students have Internet connections at home. So, making them do

frequent (more often than once in one or two weeks) Internet search assignments out of class would mean for them the necessity of frequently visiting Internet cafes and paying for using the facilities there. It is not always ethical to make students incur such additional expenses too often. As to doing the Internet search assignments in universities' computer laboratories during after-class hours, this is not the best solution for all cases either because computer laboratories/classes are regularly overcrowded at some universities so that a student may need to wait a couple of days to find a place to work there. Therefore, only computer work during lessons can ensure that all students do their mandatory and most important for the learning process Internet search assignments in time and without organizational problems.

2. Students are not always competent and proficient enough in doing their Internet search and working with information sources from the Internet, especially if those sources are in English. When their Internet search is teacher-supervised, such problems disappear because students can always turn to their teacher for help. This approach can also accelerate students' Internet proficiency development (especially in what concerns working with Internet sites in English).

3. The suggested organizational form enables students' groups engaged in computer/Internet assisted ESP learning to occupy computer classes/laboratories with Internet connection only for what they are really needed – for working on the Internet. Students come to a computer class/laboratory, get instructions from their teacher, and work on the Internet all through the class period (pre-computer and computer work according to Barrett and Sharma, 2003). Post-computer work – like discussions, case-studies, presentations on the basis of the information found on the Internet – is done in traditional classrooms, not in computer ones. That makes using computer classes/laboratories much more economical and cost-effective because working in computer classrooms without using computers is totally avoided.

4. The Internet research done by students in the approach developed by us is supposed to be regular and mandatory. Making some learning activity regular and mandatory requires considerable organizational efforts, especially at the early stages of introducing that activity. This is why at early stages in an ESP course it is better to organize the most important students' Internet research activities in class and under teacher's direct supervision.

Everything said about learners' Internet research in their ESP classroom does not mean that out-of-class Internet research is meant to be totally excluded. In students' project work their out-of-class Internet research is paid equal attention to. The approach suggested by us envisages quite broad and regular use of students' out-of-class Internet activities. That can be shown by an example of a learning task (home assignment) taken from the coursebook Psychological Matters (Tarnopolsky, Kozhushko, et al., 2011a: 43):

Divide the class in two groups. The students from the first group (group A) have to read the text in activity 6 from Unit 2, Step 1 in the Workbook. This short text is devoted to the behaviorist Edward Lee Thorndike. The students who are going to read the text should get ready to be interviewed about the life and work of Edward Lee Thorndike (find additional information about him on the Internet using the site or sites recommended by your teacher). The students from the second group (group B) have to read the text in activity 7 from Unit 2, Step 1 in the Workbook. This short text is devoted to the behaviorist

Clark Hull. The students who are going to read the text should get ready to be interviewed about the life and work of Clark Hull (find additional information about him on the Internet using the site or sites recommended by your teacher). Those interviews will serve as a source of some information for one fragment of the chapter on famous psychologists in your Short Psychological Encyclopedia.

As it can be seen, out-of-class students' Internet research can also be mandatory and indicated as such in assignments included in the coursebook. But, as it can be seen from both learning assignments for Internet research given as examples, such assignments always presuppose teacher's recommendation of some Internet sites for students' work.

The natural necessity for the teacher to provide students with possible sites for doing their Internet research raises an important issue of where the teacher is supposed to get those sites for recommending them to their students. This question is answered in the *Introduction* to the *Teacher's Book* attached to the coursebook *Psychological Matters*. The quotation from the aforesaid *Teacher's Book* explains that:

*"To organize students' Internet searches, the teacher has to be able to recommend different professional web sites in English to his/her students. For this purpose, s/he is required to collect and constantly renew his/her **Library of psychological sites in English**. The authors of the coursebook could not provide the teacher with such a Library of sites because the sites themselves and the information in them frequently change. Of course, beginning to collect his/her Library of sites, the teacher should better use as a starting point those web sites that are indicated in the Student's Book and Workbook as sources of the texts for reading. Some of those sites may lead him/her to other sites and in this way help to create the entire Library. But the teacher should keep in mind that, first, the **Library of sites has to be collected before the work with the coursebook begins in the classroom** (the teacher is going to need his/her Library from the very first class on Unit 1) and, second, **the teacher has to check the collected sites at least once in two months to be able to replace the sites that have become obsolete or disappeared"** (Tarnopolsky, Kozhushko, et al., 2011b: 12)* .

On the other hand, besides providing students with Internet sites for their work, the teacher is also supposed to teach them how to find relevant sites in English on their own, i.e., how to best use search engines to become independent in their Internet research learning activities – and in later professional activities when doing Internet research for professional purposes on professional Internet sites in English. Actually, the more advanced students become in their project work, the more they are expected to rely on their own resources and the less on teacher's prompts for finding the required information on the Internet.

Students' Internet-assisted project work organized along the guidelines discussed above is supposed to develop all the four learners' basic communication skills for professional communication in English: speaking, listening, reading, and writing. Those skills are supposed to be developed in an integral manner, so that reading and listening pave the way to speaking, speaking stimulates writing which, in its turn, requires speaking, reading and listening again, etc.

In fact, the work on every separate task in the framework of students' project work always begins with reading (developing students' reading skills). Students read various authentic electronic profession-related English texts found by them on the Internet and

devoted to theoretical and practical issues related to their project. Such reading is always accompanied by listening (developing students' listening skills). It is so because students always use not only Internet materials for reading but they are also required to find audio and video Internet materials to be used as relevant resources of project information.

Having collected the information for their current project task, students start discussing it with the view of deciding how to use that information for completing the task (developing speaking skills, as well as listening skills because students listen to each other). Such discussing, besides discussions and debates, may also include students' presentations, brainstorming, case studies, and other speaking activities which finally lead to the decision of what the "final product" of that particular project task should look like. Since such a final product of every separate project task is always one of the chapters of learners' *Short Psychological Encyclopedia*, discussing in the oral form (speaking) inevitably leads to writing that chapter by different students or their teams. This develops writing skills.

However, when different versions of the chapter in question are written by different students or their teams, those versions again need to be discussed (speaking and listening) with the aim of choosing the best version or of combining several versions into a better one, etc. Such improving of the final version may require additional reading or listening to Internet materials, rewriting the final version and so forth – until the transition to the new project task is made, again requiring new reading and listening, and so on ad infinitum.

In this way, the process of developing students' speaking, listening, reading, and writing skills in English taught and learned for professional communication becomes an organic process of transiting from one communicative activity to another. The transitions are caused by natural extra-linguistic reasons due to the natural and organic advance of the professionally oriented project work and not to the formal requirements of language curriculum.

4. The practical Efficiency of the Designed Approach to Developing ESP
   Students' English Speaking, Reading, Listening and Writing Skills
   in Internet-Assisted Project Work

The efficiency of the Internet-assisted project work discussed in this paper was checked experimentally.

At the beginning of 2010/2011 academic year, two academic groups of students majoring in psychology in their second year at Alfred Nobel University, Dnipropetrovsk, Ukraine were selected for conducting the experimental study. 12 students aged 18-19, 6 females, 6 males, were in the experimental group; 12 students aged 18-19, 6 females, 6 males, were in the control group. Before their ESP course started in the second year of their university studies, the students from both groups attained the B2 level (Council of Europe, 2001) in their command of General English according to placement test results.

Both groups were working with one and the same coursebook during the academic year. It was the above mentioned coursebook Psychological Matters. The difference between the experimental and control groups was in the fact that during the total period of our study, i.e., during the entire 2010/2011 academic year, in the control group, unlike the experimental group, the Internet-assisted project work was totally excluded and project tasks from the coursebook were omitted from the teaching/learning process.

The learning outcomes in both groups in what concerns the development of students' speaking listening, reading, and writing skills were checked after the first semester and at the end of the year (December 2010 and June 2011). The tasks for checking those skills and the assessment criteria were designed so as to copy relevant tasks used in Cambridge FCE and BEC examinations. In this way, the testing procedure was totally identical to the one described in our talk given during the 1st International Conference on Teaching English for Specific Purposes at the Faculty of Electronic Engineering, University of Niš, Serbia, 17th to 19th May 2013. The difference lies in the fact that in the preceding case the students were working with different coursebooks while in the case under discussion it was one and the same coursebook, but Internet-assisted project work was excluded in the control group.

Testing showed that in January 2010 the students from the experimental group demonstrated the results in speaking that were 9% better than in the control group. In listening, their results were 10% better, in reading 8% better, and in writing 13% better (10% better in all kinds of tests taken together). In June 2011 testing, the advantage of the experimental group became more prominent: 10% better results in speaking, 15% better in listening, 15% better in reading, and 20% better in writing (15% better in all kinds of tests taken together).

The students of both the experimental and control group were also requested to complete self-assessment sheets for self-assessing their skills in professional oral and written communication in English (speaking, listening, reading, and writing). A fragment of such a sheet for one student (self-assessment of his or her listening skills) is given below to provide an example of how self-assessment was organized (Table 1):

Table 1. Self-assessment sheet fragment (self-assessment of listening skills development)

Professional communication skills I can use in the target language	Yes, I can use this skill	I want to gain this skill
Listening		
I can understand standard spoken texts on personal, social, academic and professional topics spoken in standard dialect at normal speed		
I can follow the essentials of lectures, talks and reports and other forms of academic/professional presentations spoken in standard dialect at normal speed		
I can understand films and TV programs, if they don't have very specific terminology		
I can follow a lively conversation between native speakers		
I can understand most radio documentaries and most other recorded or broadcast audio materials in social, professional or academic life, and identify speaker's viewpoints and attitudes as well as information content		
I can understand the content of professional meetings and follow the course of the discussion		

If the student's answer to a statement in the self-assessment sheet (like "I can understand the content of professional meetings and follow the course of the discussion")

was "Yes, I can use this skill", it meant that he or she considered that skill as fully developed by him/her. If the answer was "I want to gain this skill", it meant that the learner considered it as underdeveloped or not developed at all.

The self-assessment done by students demonstrated that only the students from the experimental group were really self-confident about the development of their professional communication skills in speaking, listening, reading, and writing in English (80.3% of answers "Yes, I can use this skill"). Unlike that, only 65.5% of learners from the control group gave positive answers, being less confident in the high level of their skill development. Thus, it was shown that Internet-assisted project work really helped in boosting students' self-confidence in their ability to successfully communicate in English for professional purposes.

5. CONCLUSION

Therefore, the study has convincingly demonstrated a great learning potential of the Internet-assisted project work approach suggested by us for improving and accelerating the development of students' skills of speaking, listening, reading, and writing in English for professional communication. It also demonstrated the potential of the approach for making student self-confident in what concerns the development of their professional oral and written communication in English, which is very important for perfecting that communication and for positively motivating it. Though the developed approach was designed only for an ESP course for future psychologists, we believe that, with proper modifications, it can be used with equal success in whatever other tertiary schools' ESP courses.

REFERENCES

Barrett, B., & Sharma, P. *The Internet and Business English*. Oxford: Summertown Publishing, 2003.

Council of Europe. *Common European Framework of Reference for Languages: Learning, Teaching and Assessment*. Strasbourg, 2001.

Fried-Booth, D.L. *Project Work*. Oxford: Oxford University Press, 1996.

Harmer, J. *The Practice of English Language Teaching* (3d ed.). Harlow, Essex: Longman, 2001.

Hutchinson, T. *Project English. Student's Book*. Oxford: Oxford University Press, 1994.

Tarnopolsky, O., Kozhushko, S., Degtiariova, Y., & Bespalova, N. *Psychological Matters. A Coursebook of English for Students of Psychology. Student's Book and Workbook.* Kyiv: Firma INKOS, 2011a

Tarnopolsky, O., Kozhushko, S., Degtyariova, Y., & Bespalova, N. *Psychological Matters. A Coursebook of English for Students of Psychology. Teacher's Book.* Kyiv: Firma INKOS, 2011b

Warschauer, M., Shetzer, H., & Meloni, C. *Internet for English Teaching*. Alexandria, VA: TESOL, 2000.