*Advances in Social Science, Education and Humanities Research, volume 333*

Humanities and Social Sciences: Novations, Problems, Prospects (HSSNPP 2019)

# Integrative Approach to Teaching English at University: Sociological Study

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***Abstract*—Modern information technologies make it possible to intensify English language teaching, making it more attractive for students. However, separating language instruction from the educational process on the whole, let alone from the professional training, does not allow students to solidify the obtained language competencies in their immediate professional activity. The sociological study of integrating the English language into the educational process of a university was focused on the students' learning activity, their readiness to accept acquisition of the English language as a necessary condition for their professional training, not only as a prerequisite to developing a universal cultural communicative competency. In the process of the investigation, we singled out students' strategies in English learning at university, the degree of their independence in acquiring the language as well as how they understand the model of integrating English into the professional training curriculum at their university.**

***Keywords—cross-curriculum integration, professional competencies, motivation***

## I. INTRODUCTION

Personal professionalisation in the current context requires efficient information processing. Such information is presented in the global scientific community mostly in English. Command of a foreign language becomes a necessary condition of a successful professional activity, whereas a language competency goes beyond a universal cultural competency. Bringing command of the English language to a new level calls for cross-curriculum integration. By cross-curriculum integration we understand complementarity of disciplines with the aim of a deeper understanding of the subject matter. Integrating the English language into the educational process can be carried out using different techniques, methods, information and communication technologies.

The issue of integrating the English language into the process of tertiary education has been extensively studied by various researchers. One can single out several approaches to studying integration of the English language into the educational process in the contemporary scholarly literature.

The direction related to the use of information technologies and special tools has visibly gained a momentum lately. These can be used both in the classroom and independent learning. For instance, I.D. Rudinsky and T. Abdulkhamid see the automatic speech recognition technology as a way to improve English skills in non-linguistic university students [1]. E.K. Danilina argues that use of mobile applications can be of great assistance for developing a communicative competency in students pursuing a Bachelor's degree [2]. The BYOD-technology, simple as it may seem, can lead to intensification of the English language instruction [3]. However, A. Recke Duhart and A. Damian Rodriguez proved that the software used in English language training should only be used as an additional tool; moreover, it should constantly be updated to meet the students' needs [4]. H.L.W. Chiu also came to a conclusion that blended learning should represent a balanced combination of online activities (including extensive use of social networks) and conventional methods [5].

Besides, such approaches are not limited to offline technologies. As such, MOOCs (Massive Open Online Courses) have been actively applied in Russia [6] and abroad [7] for English language instruction, which is a great opportunity not only to improve one's English skills but also to deepen professional training. Still, it does not mean that teachers are no longer necessary. The same applies to Academic Distant Learning Courses [8]. Internet represents a vast platform which contains the plethora of resources to be used for boosting some separate skills, such as listening [9] or grammar [10] as shown in the corresponding case studies. A few other technologies, such as data mining analysis, were studied by M. Madkour, and it has been displayed that they can be especially significant to improve reading skills [11].

Instruction in the virtual setting provides additional opportunities of integrating the English language into the professional training. Distance learning experience as well as using mass online courses are reflected in multiple works. B. Knutzen and D. Kennedy suggested using Global Classroom for students of universities from countries in the same time zone so as to synchronise the instruction [12].

Some researchers put a special emphasis on the modern methods of teaching, namely, interactive and communicative approaches, which are especially important for students of non-linguistic faculties [13]. At the same time, it is necessary for teachers and instructors to be aware of technological novelties they can further introduce into the educational process [14].

Integration models of learning and teaching the English language are presented in works by both Russian and foreign authors. R.R. Fahrutdinov and others researched cross-

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curriculum integration of English in the learning process [15]. One of the key factors in this regard, to their mind, is motivation of the students as well as readiness of the teaching staff to expand their techniques. The authors came to a conclusion that cross-curriculum integration represented a valuable tool of enhancing students' effectiveness. Other works, in particular by authors from Eastern Europe, also focus on striving for European standards in education as well as mixed types of training [16]. As for the other countries, the national experience of teaching the English language in China in terms of applying the model of integration is presented by Zhao Kun and Zhang Yi. They emphasize that in the PRC, the need for a newer approach has been reflected in the language teaching reform [17].

The presented studies do not reflect students' views in terms of relevance of the English language in their professional activity. The aim of this research is analyzing students' positions as to the integrating the English language in the educational process of a university. The novelty of this investigation consists in scrutinizing students' strategies in English learning, their readiness to alter their notion of the educational process.

## II. Research Methodology

A dialectical method represents a methodological framework of the study, which allows one to scrutinize forming the language competency in students dynamically, as they are gaining professional knowledge in terms of representing human capital assets in the innovative professional activity. A questionnaire-based survey has been chosen as a research technique. The questionnaire was designed taking into account the data obtained by the authors during the previous studies on motivation in learning the English language and the differentiated approach to the instruction [18, 19]. Main research objectives are uncovering motivational factors and methods in teaching and learning the English language (the interest in learning, its relevance in the future professional activity), signification of strategies of English language learning (namely, various kinds of extracurricular activities, striving for studying abroad for a certain period of time, inclination to learning other foreign languages, readiness to independently use various forms of the educational activity integrated with the English language), defining the presence of the English language integration with the professional training disciplines.

## III. Results and Discussion

A total of 558 students took part in the research, representing 48 various engineering majors, 64.87 % of them were male students, 35.13 % were female students. As of the survey period, students were in their 1st, 2nd, 3rd, 4th or 5th year or in the graduate school in universities of Novosibirsk, Krasnoyarsk, Omsk, Vladivostok, Smolensk and Kirov. The respondents' age bracket ranged as follows: 32.08 % were 17 to 18 years old, 42.11 % were 19 to 20 years old, 25.81 % were 21 years old and older.

The interest in the subject is one of the important factors of motivation in learning the English language: most of the students (68.4 %) pointed out that they were interested in learning the English language at the university to some extent, 24.2 % of the respondents claimed that they were very much interested in learning the foreign language. Respondents are motivated to learn the English language due to its possible usefulness in work, trips abroad and communication with the foreigners. Only 9.3 % of the students attend additional language courses, 46.2 % of the students are trying to learn the foreign language independently. Most of the students only study English at the university. Classes stimulating the interest in the language will be actively contributing to the development of the language competency at the professional level.

The representation of integrating the English language into the professional disciplines can be reflected in the instructors' requirements for students aimed at handling the engineering literature (Fig. 1).

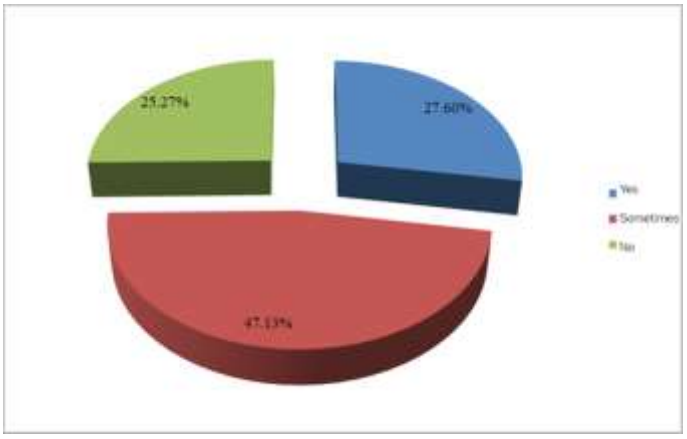



Fig. 1. Do the instructors of special technical disciplines ask you to use sources in foreign languages when you are fulfilling written assignments?

Only one quarter of the instructors try to teach students to work with the sources in English. This can be connected to both the academic culture in a specific university in general and professional qualities of the staff. That is why, considering opportunities for integrating the English language into the professional disciplines, it is necessary to pay attention to the activities of the teaching staff in this direction. Independence of students is of great importance, as well as their curiosity, willingness to broaden the informational background by overcoming language barriers (Fig. 2).

Juxtaposing the instructors' and students' activities, we can see that the students have a better potential in this regard, which should be used. We also asked the respondents why they tried (or did not try) to use sources in foreign languages when fulfilling written assignments. According to their replies, texts in foreign languages contain more relevant information in various areas of engineering. Simultaneously, working with texts in foreign languages also helps them boost their command of the language. The group of the respondents not using sources in foreign languages in their independent work, explained this by the lack of necessity (such requirements were not present), lack of motivation (laziness), sufficiency of sources in their mother tongue.

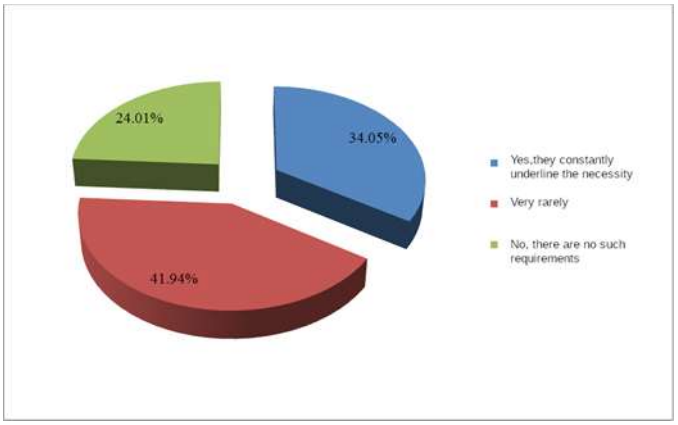
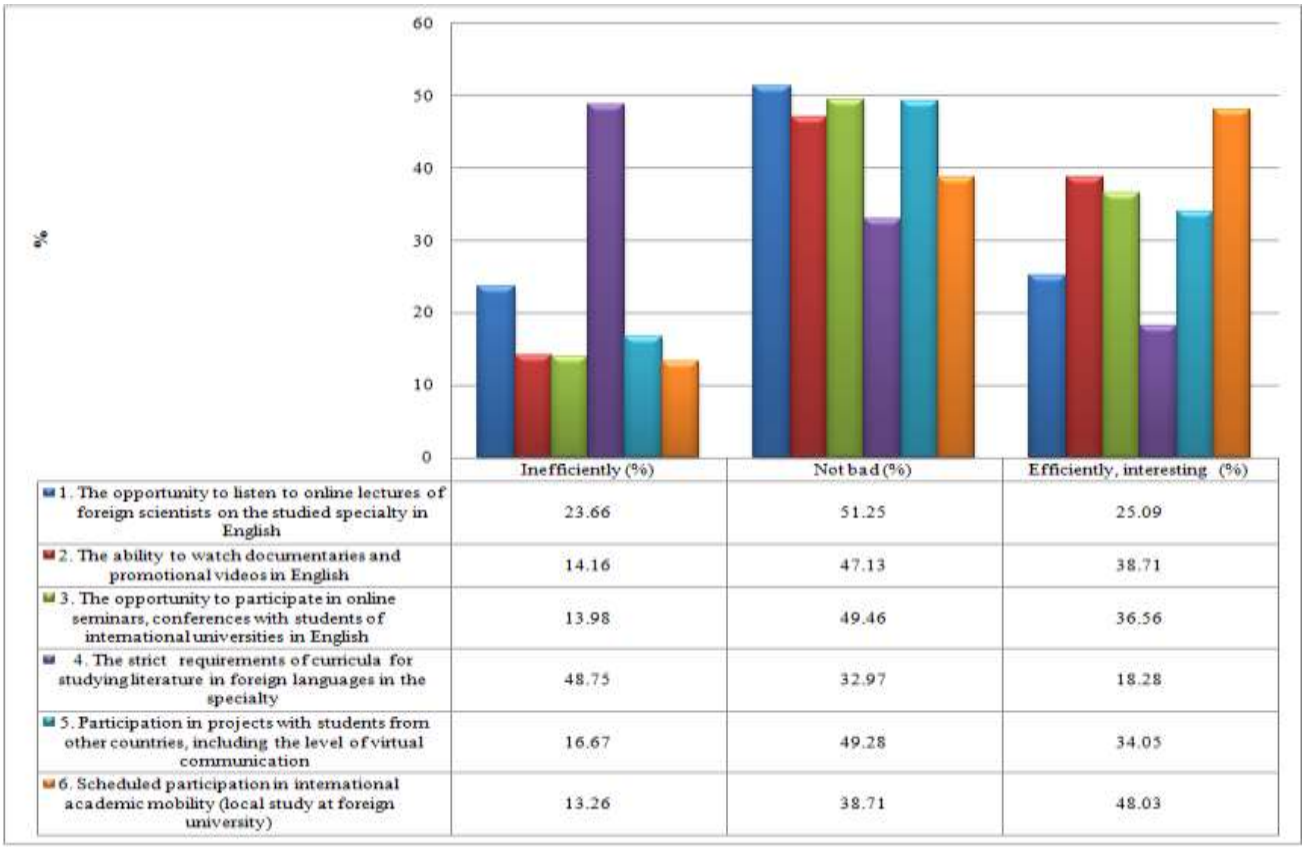



Fig. 2. Do you try to use sources in a foreign language when fulfilling written assignments independently?

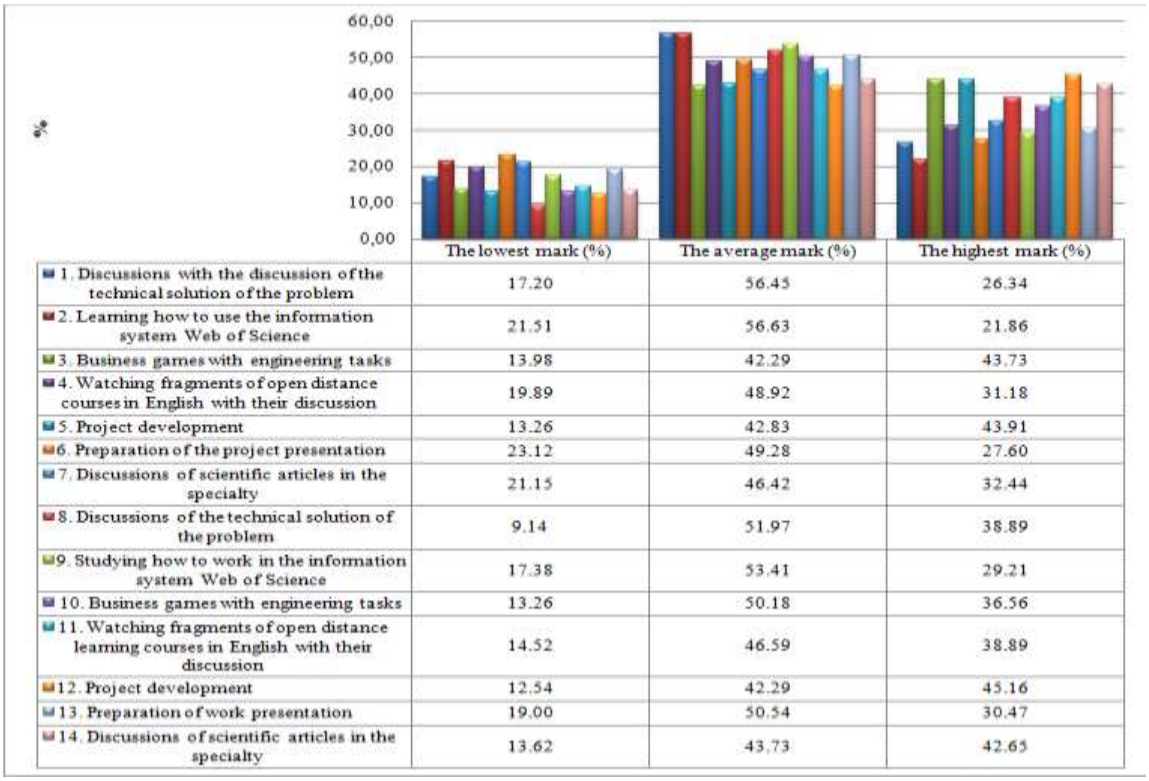
The respondents mentioned that it was useful to resort to the English language for communication with their groupmates during the classes within a particular topic given by the instructor teaching an engineering subject, as well as answering the corresponding questions. Apart from this, the respondents need to know the English language in order to write code for general and engineering purposes, as well as to understand the engineering terminology more clearly. The representation of the most motivating forms and conditions of the educational process by the students for learning English is shown in Fig. 3.

Students do not see expediency in the prerequisite of using scientific sources in foreign languages when preparing for seminars or fulfilling written assignments; however, they are ready to use them. Consequently, the higher evaluation of the review part in a student's work or activity at a seminar (not the obligatory requirement to use sources in foreign languages) should be the motivating factor here. The motivation is ensured by the opportunity to study at the university abroad for some period, as well as other forms of academic mobility. The respondents also marked that they would like to collaborate with foreign instructors within their university, they were in need of informal communication in English and various extracurricular groups where they would solidify the knowledge obtained both by learning English and exercising their hobbies. In learning English as a mandatory course, the respondents also see lots of interesting opportunities in the educational activities (Fig. 4).



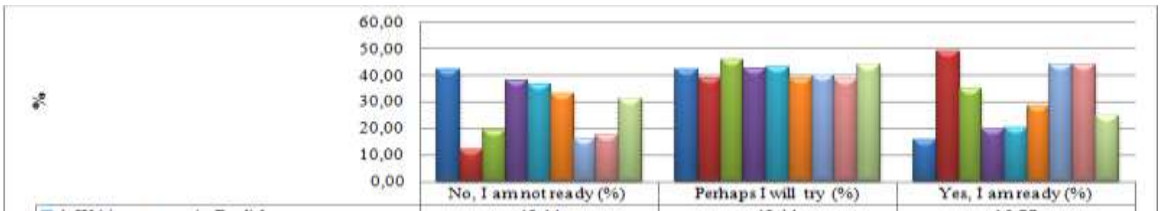

| | Inefficiently (%) | Not bad (%) | Efficiently, interesting (%) |
|---|---|---|---|
| 1. The opportunity to listen to online lectures of foreign scientists on the studied specialty in English | 23.66 | 51.25 | 25.09 |
| 2. The ability to watch documentaries and promotional videos in English | 14.16 | 47.13 | 38.71 |
| 3. The opportunity to participate in online seminars, conferences with students of international universities in English | 13.98 | 49.46 | 36.56 |
| 4. The strict requirements of curricula for studying literature in foreign languages in the specialty | 48.75 | 32.97 | 18.28 |
| 5. Participation in projects with students from other countries, including the level of virtual communication | 16.67 | 49.28 | 34.05 |
| 6. Scheduled participation in international academic mobility (local study at foreign university) | 13.26 | 38.71 | 48.03 |

Fig. 3. Can classes and extracurricular activities stimulate students to learn English?




| | The lowest mark (%) | The average mark (%) | The highest mark (%) |
|---|---|---|---|
| 1. Discussions with the discussion of the technical solution of the problem | 17.20 | 56.45 | 26.34 |
| 2. Learning how to use the information system Web of Science | 21.51 | 56.63 | 21.86 |
| 3. Business games with engineering tasks | 13.98 | 42.29 | 43.73 |
| 4. Watching fragments of open distance courses in English with their discussion | 19.89 | 48.92 | 31.18 |
| 5. Project development | 13.26 | 42.83 | 43.91 |
| 6. Preparation of the project presentation | 23.12 | 49.28 | 27.60 |
| 7. Discussions of scientific articles in the specialty | 21.15 | 46.42 | 32.44 |
| 8. Discussions of the technical solution of the problem | 9.14 | 51.97 | 38.89 |
| 9. Studying how to work in the information system Web of Science | 17.38 | 53.41 | 29.21 |
| 10. Business games with engineering tasks | 13.26 | 50.18 | 36.56 |
| 11. Watching fragments of open distance learning courses in English with their discussion | 14.52 | 46.59 | 38.89 |
| 12. Project development | 12.54 | 42.29 | 45.16 |
| 13. Preparation of work presentation | 19.00 | 50.54 | 30.47 |
| 14. Discussions of scientific articles in the specialty | 13.62 | 43.73 | 42.65 |

Fig. 4. Potentially interesting forms and techniques of learning English N=558




| | No, I am not ready (%) | Perhaps I will try (%) | Yes, I am ready (%) |
|---|---|---|---|
| 1. Writing essays in English | 42.11 | 42.11 | 15.77 |
| 2. Watching educational and documentary films in the specialty | 12.01 | 38.89 | 49.10 |
| 3. Listening to open online courses in a foreign language | 19.35 | 45.88 | 34.77 |
| 4. Preparation of publications in English for student conferences | 37.81 | 42.47 | 19,71 |
| 5. Preparation of presentations, coursework and other assignments | 36.56 | 43.19 | 20.25 |
| 6. Independent search for a student of a foreign university in your specialty and discussion of topical issues of the… | 32.80 | 38.71 | 28.49 |
| 7. Reading articles, books, patents in the specialty in English | 15.95 | 39.96 | 44.09 |
| 8. Finding information for your assignments in English | 17.38 | 38.53 | 44.09 |
| 9. Search for student programs of international exchange and submitting documents in English | 31.18 | 44.09 | 24.73 |

Fig.5. Students' readiness to independently use various forms of activities in a foreign language in an educational project

The respondents were asked to choose three variants of forms and techniques in learning English which could be interesting for improving language skills in the professional field. The students opted for interactive forms of classes, such as role plays, giving talks, watching movies in English with subtitles as well as designing group projects.

Time constraints of curricular activities make it impossible to use numerous forms and methods of learning a foreign language in the professional activity. Integration of the foreign language into the professional disciplines should be actively supported in students' independent work. The respondents were asked to evaluate whether they were ready to use various forms of working with a foreign language (finding and analyzing the

necessary information, including visual aids, reading, fulfilling written assignments and using communicative forms of education) using a three-point grading scale: "Yes, I am ready", "Probably I could try it" and "No, I am not ready" (Fig. 5).

We received multiple replies to the questions "What else could you suggest to do in order for the English language to become relevant for students in the educational process of a university?" and "How else is it possible to enhance students' motivation for English learning?" The students especially actively marked such forms of encouragement used by instructors as "home free" marks at the examinations if a student is diligent enough, practice-oriented forms of interaction (watching movies with subtitles, discussing the information about job positions on the global labor market, integrated classes helping practice the skills obtained during special courses but in English), field trips and study trips abroad.

The analysis of the survey results leads one to a conclusion that it is necessary to design cross-curriculum classes (lectures in the English language, seminars with the discussion of practical problems in English conducted by both the instructor of a special professional discipline and instructor of the English language).

## IV. Conclusion

The issue of integrating the English language into the professional training disciplines becomes more and more urgent under the condition of changing the structure, forms and content of the educational process.

The development of online learning, mass open online courses, using databases, scientific literature and patents in foreign languages, working and studying with the help of international educational platforms provide a wide range of opportunities for professional growth.

Integrated assignments and forms of the educational process will allow students to look at the significance of the English language in their professional activity at another angle, bringing them to a higher level of analyzing information and boosting their innovative activities.

In order for the English language to really become an effective instrument in the educational process and to be integrated with the professional disciplines cluster, it is necessary to design a holistic project for working with the instructors aimed at acquiring the English language in the sphere of professional activity.

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