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ATTITUDES TOWARD LEARNING ENGLISH AS A SECOND LANGUAGE AMONG IT STUDENTS AT THE FACULTY OF MATHEMATICS AND INFORMATICS, SOFIA UNIVERSITY

Abstract:

The aim of this article is to highlight and summarize the attitudes of IT students at the Faculty of Mathematics and Informatics at Sofia University towards learning English as a foreign language as well as their stereotypes of effective practices in acquiring the language. The purpose of this scientific study is to examine the learning-teaching process in details focusing on the students' needs in order to find and implement new working patterns in foreign language teaching in this specific area and consequently raise the level of the English language knowledge in IT sphere of university students.

The global world today requires a high level of foreign language acquisition, English in particular. Acquiring skills of reading, writing, listening and speaking a foreign language is a long-term process involving the efforts of both parties: students and teachers. According to the latest directives of the EU learning foreign languages is one of the main priorities nowadays. One of the EU's multilingualism issues of importance is for every European citizen to speak 2 languages in addition to their mother tongue. As English turns out to be a lingua franka of today's politics, business and economy world its significance increases and thus learning English at higher institutions is a must.

The present article focuses on identifying the problems which students and teachers face in their long joint 'venture' and on finding solutions based on the needs of the learners. Half of the students at the Faculty of Mathematics and Informatics demonstrate a high level of General English so that they have no explicit interest in the foreign language. However, the other half of the students have an obvious need to raise their level of fluency. The main goal of the Faculty is to have a total number of students trained in General English, as well as computer terminology and business skills in English in the IT field. In order for the classroom learning process to be effective, it is necessary to take into account the preferences and needs of the students themselves. For the purpose of improving the quality of the training, a study was carried out. The article also presents summarized, detailed results of the two surveys, one at the beginning and one the end of the school year. The study was conducted among students of Bachelor's degree in the following majors: Computer Sciences, Information Systems, Informatics, Mathematics and Informatics, Statistics, Software Engineering.

Keywords:

IT, foreign languages, skills, Applied Linguistics, reading, writing, listening, speaking, use of English, grammar, knowledge

JEL Classification: I23

Attitudes toward Learning English as a Foreign Language among IT Students at the Faculty of Mathematics and Informatics, Sofia University

INTRODUCTION

The present article focuses on identifying and determining the attitudes of the IT students at the *Faculty of Mathematics and Informatics* (FMI) at *Saint Kliment Ohridski University of Sofia*, Bulgaria, towards learning/teaching English in compulsory courses of General English (GE) and English for Specific Purposes (ESP), i.e. Computer English. The article discusses if the students' attitudes demonstrate significant differences concerning their majors at the *Faculty of Mathematics and Informatics*, if the types of the towns they come from and the type of the high schools they graduated have had any influence on their acquisition of English as a foreign language. One of the main goals of the Faculty educational policy is to have all students trained in General English, as well as computer terminology and business skills in English in the IT field at level B2 according to the Common European Framework of Languages. In order for the classroom learning process to be effective, it is necessary to take into account the preferences and needs of the students themselves. For the purpose of improving the quality of the training, a study was carried out. Apart from English the FMI students studied German, Spanish and French at school as well, and display B2-C1 levels of these according to the Common European Framework of Languages. But this aspect is not the focus of the present article.

This research highlights and summarizes the students' stereotypes of effective practices in acquiring the language. Another aim is to examine the learning-teaching process in details focusing on the students' needs in order to find and implement new working patterns in foreign language teaching in this specific area and consequently raise the level of the university students' English language knowledge in IT sphere. Last but not least, the survey targeted students' opinions concerning the present teaching methods applied at the Faculty so as to improve the latter and make the English classes more engaging and intriguing for students.

The present article also focuses on identifying the problems, which students and teachers face in their long-term cooperation in the classroom and on finding new fresh solutions based on the needs of the learners. As a result of looking for solutions to improving teachers' work and increasing students' interest and motivation in learning English the researchers came to the decision to conduct a survey at the beginning and the end of 2018/2019 winter semester. The average level of the students' foreign language competences in the faculty is higher than the average level of the students in other faculties at the University of Sofia. As a whole, the students at the FMI, University of Sofia, are highly motivated, enthusiastic, and eager to learn. This kind of attitude can be observed in the General English and Computer English classes, too. They willingly take part in the English classes and demonstrate confidence in using the language. These students are the most favourable students and do not require application of specific teaching methods.

Concerning the needs and attitudes of the students in the English classes the following groups have been identified:

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(1) The first group of students have no obvious need to raise their level of fluency because they feel confident enough and do not think that they need to acquire more knowledge in English. That is why it is necessary to hold the attention and interest of these students in the classroom, which poses a big challenge to the teachers and requires the application of new teaching methods and strategies.

(2) Some of the students, however, have explicit need to learn English and improve their level and reach fluency, because they have obvious gaps in their vocabulary and grammar. They also demonstrate considerable motivation and strive to deal with the difficulties while learning English as a foreign language.

(3) The last group of students do not show any motivation or interest and lose confidence discouraged by the difficulties of the foreign language. They underestimate their foreign language skills and thus the teachers need to find ways to boost their confidence and motivation, and break the psychological barrier that hinders their progress.

The respondents of the presented research comprise the students of the following Bachelor's degrees, Computer Sciences, Informatics, Information Systems, Mathematics and Informatics, Statistics, Software Engineering, at *Faculty of Mathematics and Informatics* at *Saint Kliment Ohridski University of Sofia*. 25% of the respondents are female while the rest 75% are male. Only 5 % of all respondents are foreign students, who come from North Macedonia, Serbia, Kosovo and the Ukraine. The majority, i.e. 80% started learning English at the kinder garden, some 25% of the respondents started in the fourth or fifth grade at the age of 11, and 5% started in the seventh grade, i.e. the age of 14. The latter come from small towns or villages where the schools lack teachers in English.

Such a study has been conducted neither at the FMI nor at Sofia University, so the acquired data may also help both learners and teachers at other Faculties of Sofia University, other Bulgarian higher education institutions and may hold personal and individual values and perceptions which are similar to those of other European and wide-world ones because what is in common may transcend national group and individual cultural and linguistic borders.

SCIENTIFIC VIEWS ON ENGLISH LANGUAGE LEARNING/TEACHING

All spheres of the global world today, i.e. economy, politics, arts, education, business, and specially ICT require a high level of foreign language acquisition, English in particular. As English turns out to be *a lingua franka* of today its significance increases and thus learning English at higher institutions is a must. Acquiring skills of reading, writing, listening and speaking a foreign language is a long-term process involving the efforts of both parties: students and teachers. According to the latest directives of the EU language policies learning foreign languages is one of the main priorities nowadays. One of the EU's multilingualism issues of importance is for every European citizen to speak two languages in addition to their mother tongue. The above mentioned statement confirms the theses of the European Parliament concerning linguistic and cultural diversity in Europe:

"*Respect for linguistic diversity is a fundamental value of the EU, as are respect for the person and openness towards other cultures. This is incorporated into the preamble to the Treaty on European Union, which refers to 'drawing inspiration from the cultural, religious and humanist*

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inheritance of Europe' and 'confirming [the] attachment to the principles of liberty, democracy and respect for human rights'. In Article 2 of the Treaty on European Union (TEU), great importance is given to respect for human rights and non-discrimination, while Article 3 states that the EU 'shall respect its rich cultural and linguistic diversity'. Article 165(2) of the Treaty on the Functioning of the European Union (TFEU) emphasizes that 'Union action shall be aimed at developing the European dimension in education, particularly through the teaching and dissemination of the languages of the Member States', while fully respecting cultural and linguistic diversity (Article 165(1) TFEU)."[1]

For the purposes of the present article, some basic scientific theories should be clarified in support of this study. It is entirely obvious that many factors have a significant influence on the learning and teaching process of a foreign language. Numerous researchers in the field of foreign language learning claim that a number of factors have to be studied, so that the elements of effective and successful foreign language learning can be identified. Similarly, Rod Ellis (2004:526) states, "*More recent research on motivation or on learning strategies, however, has sought to explain why some learners succeed more than others and has been seen as complementary to mainstream research in SLA*[2]*. This later research continues to have an "applied" side, however. It has been used to identify the characteristics of "good language learners" as a basis for learner training (i.e., providing guidance in how best to learn). It has also served as a basis for aptitude – treatment interactions (i.e., matching learners to different types of instruction so as to maximize learning)."*[3]

Students' attitudes were developed during childhood by parents and teachers in the primary school, later by classmates and friends. Due to the fact that students' attitudes are sometimes negative, the teachers are to face this challenge to change the former influence and create positive motivation and interest in students in foreign language. Attitudes of students towards language acquisition are closely associated with the accomplishment or disappointment in language learning. A number of scientists claim that certain factors are set to influence attitudes toward learning a foreign language. Chambers (1999:25) sheds light on the fact that the students "*bring with them some attitudes born of conversations shared with family, friends, the media and personal experience of the target language community.*"[4] On the other hand, they live in a context, in which they have to cope with emotions, ethical standards, individual and subjective feelings, characteristic features of personalities, negative and positive moods and attitudes.

The role of a teacher at every stage of the language learning process is indisputable. A good teacher should never overlook their relation with students. First, it is preferable to build such a positive approach and good understanding of students' needs and students' psychological profiles, and consequently rely on this base in the course of teaching a foreign language. Cook (1994:75) claims that *"...teachers have to be aware of the reservations and preconceptions of their students. What they think of the teacher, and what they think of course heavily affect their*

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[1] http://www.europarl.europa.eu/factsheets/en/sheet/142/language-policy
[2] Second language Acquisition
[3] Rod Ellis, Individual Differences in Second Language Learning"
[4] Chambers, G. N. (1999). Motivating Language Learners. Clevedon: Multilingual Matters Ltd.

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success."[5] The humanistic approach is a two-way process and implies a positive, benevolent, human attitude of the teacher towards the students, and vice versa. The existence of this bilateral attitude of respect is a prerequisite for increasing students' motivation to learn English on the one hand, and on the other hand, encourages the teachers to do their very best.

METHODOLOGY

Participants

The study was conducted among the first and second year students of Bachelor's degree in the following majors: Computer Sciences, Information Systems, Informatics, Mathematics and Informatics, Statistics, Software Engineering at the FMI, University of Sofia, and also presents summarised, detailed results of the two surveys, one at the beginning and one at the end of the 2018/2019 winter semester. The total number of respondents of the research is 370 and they comprise 25% female and 75% male students. However, the surveys do not focus on the gender issue. Only 5 % of all respondents are foreign students, who come from North Macedonia, Serbia, Kosovo and the Ukraine.

Procedure

The survey took place in two twenty-minute long sessions in the English classes at the beginning and at the end of the winter semester of 2018/2019 academic year. Answers to the questions in the survey were provided on a totally voluntary basis. The survey was not anonymous. In the week before the survey itself, the students received detailed information about the aims and procedure of the survey. The researchers ensured and created a democratic atmosphere for the students to provide sincere opinions.

Instruments

The students of the above-mentioned majors were invited to fill in two surveys, Initial Needs Analysis (INA) and Final Reflection Analysis (FRA), specially prepared by the researcher. The respondents were expected to provide feedback about a number of main aspects, such as students' ATTITUDES and NEEDS towards learning/teaching English, students' learning STYLES and PREFERENCES, students' MOTIVATION and PERFORMANCE in the English classes concerning the contents of the compulsory courses of General English and English for Specific Purposes (Computer English) in order to improve the teachers' work and students' work. These were evaluated by means of two surveys, one initial (INA) and one final (FRA). Each survey contained 12 (twelve) questions of various types, multiple choice questions, rate questions, open questions, plus three personal questions about names, faculty number and major. Their attitudes were measured by means of quantitative and qualitative tools.

RESULTS AND DISCUSSION

Initial Needs Analysis (INA) Results.

1. The majority of the students point out that they mostly use English to read information on the Internet and communicate in the social media, i.e. 83%. About 14% read books, while 3% do not use English in their daily lives.

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[5] Cook, V. (1994). Second Learning and Language Teaching. London: Edward Arnold.

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2. Students demonstrate two main modes of learning English. About 90% of the students are used to studying with a textbook. 10% prefer writing, listening, role-playing and watching films. Part of them are used to letting the teachers hold the whole initiative. They have never been active in helping the teachers with the teaching styles. 50% of students are used to avoiding speaking because they feel embarrassed and afraid of making mistakes. And they consider speaking in free conversations the most difficult skill. In fact, they prefer speaking in guided speaking exercises.

3. Almost all students (93%) prefer conversations, speaking and role-playing. Half of those prefer conversation because the latter is not effort-consuming and the students feel confident and fluent and are able to display their skills, and the other half prefer it because they need it. Only 7% of them prefer writing, listening, oral presentations, teamwork, team projects, and games.

4. According to students' opinions 71% of the respondents need to focus on further elaboration and exercises in grammar, more specifically students mention conditionals, reported speech and phrasal verbs. One fifth of the students (18%) would like to expand their vocabulary. Only a few students (3%) think that speaking to native speakers will contribute to their speaking fluency. 5% need to improve academic writing, writing reports and essays. 2% want a special focus on pronunciation, spelling and accent. 1% are interested in the punctuation rules.

5. More than half of the students (60.4%) think they need speaking most. 11.9% claim that they need reading. Nearly one tenth of the students (9.8%) consider grammar as the most essential skill they need. 8.4% of them prefer to focus on writing skills, 5.1% state that listening is most important to develop while 4.3% regard pronunciation as the most needed skill.

6. When asked what students do to improve their English in their daily life, 40% of them they point out that they watch movies and TV, the same number of students (40%) spend time on the Internet and 10% read books. 8% read articles connected with computer science, while 2% talk to foreign friends.

7. Most students (78%) point out that they speak English during lectures and English classes. 20% speak English when travelling abroad. 2% do not use the language at all in real life but would like to use their writing skills instead if the situation requires any kind of foreign language communication.

8. 54,5 % of the students use the language informally and 45,5% use it formally. As our respondents are university students in their first or second year the majority of them do not intend to work in international companies in business environment and thus formal English is not their focus at present.

9. According to students' preferences the best approach to learning English is using a good course book in class (54%). About a quarter of them (23%) prefer a good teacher in class. 13% of the students claim they will learn best if provided with lots of examples and offered various games. The rest (10%) point out they rely on conversation practice to improve their English

Final Reflection Analysis (FRA) Results.

1. According to the students Grammar is the most difficult practice during the English lesson (32%). IT abbreviations and terminology seem to be a difficulty to 23 % of the students. Speaking is the third most difficult skill for the students (21%). Presenting presentations,

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ability to present in front of the class and interacting with the audience are challenging to 14% of the students. Essay writing and general lexis turn out to be equally problematic for 8% of the students (4% for each category). The results indicate that 2% of the students find Pronunciation as the most difficult to acquire.

2. A little more than half of the students (52%) indicated that the most practiced skill during the semester was writing. Nearly a quarter (23%) practiced speaking, 19% - grammar, and only 4% - listening.

3. Students are always encouraged to use English outside the classroom. The most common activities they engaged in were watching movies (56%), reading texts, articles and books (27%), listening (5.5%) playing computer and on-line games (4%), talking with friends (3%), reading study materials (1.5%), doing homework (1.5%) and working in an office (1.5%).

4. During the semester the students made use of several resources such as dictionaries of computer terminology and mathematics (23%), English movies (19%), various IT and other books (20%), online resources and YouTube tutorials in English (14%), articles in English (10%), grammar exercises (8%), Moodle materials, which is an online learning platform (4%), not sure (2%)

5. In a non-English speaking environment students find it challenging to speak English in formal situations, so obviously they were able to practice their English in limited situations. However, they responded that they used formal English (73%) in university lectures, speeches at international events, at work and in class, while they use informal English (27%) in non-formal meetings, social media, communicating with foreigners.

6. When asked how students studied and what they used in their English lessons, they rated the categories below in the following way:
    - Good teacher – 16.5%
    - Authentic materials – 14%
    - Conversation practice – 13.5%
    - Nice friendly class – 13%
    - Interesting subjects – 10%
    - Interactive media – 8.5%
    - Having all mistakes corrected – 7.5%
    - Games – 6%
    - Listening to different voices (pronunciation) – 4.5%
    - Good textbooks – 4.5%
    - Role-playing – 2%

7. As students are different types of learners, they demonstrated various attitudes towards the learning process. They rated the categories below in the following way:
    - Try their best - 18.5%
    - Able to concentrate in class - 16.2%
    - Easily distracted - 14.8%
    - Want to improve - 11.1%
    - Motivated - 11.1%
    - Communicate in class - 11.1%
    - Enjoy studying English in class - 6%
    - An organized learner - 6.6%
    - Feel confident when speaking English - 3.7%

8. The survey proved that the most preferred activity during the lessons was speaking (29%), presentations (21%), project work (20%) reading (12%), writing (9%), translating (7%), and grammar exercises (2%).

9. Most of the students (82%) claim that they achieved their aims, namely speaking more confidently in front of an audience, communicating more easily than before, finding courage to speak English to their colleagues, learning new vocabulary and grammar (how and when to use certain words), reviewing, improving their writing and better understanding new terminology. A little less than a quarter (18%) do not think they have acquired the above mentioned skills. In order to improve their progress in English students recommend more grammar tasks, more entertaining activities, group assignments, more practice, listening exercises.

FINDINGS

Some main points have been highlighted in the course of processing the data from the survey among the students at the FMI at Sofia University. According to the initial and final surveys conducted by the students at FMI, Sofia University the above-mentioned findings do confirm the following recent trends in TEFL:

1. Learners take part in the process of TEFL with their specific individual characteristics which will demonstrate both their modes of learning and results of learning. Students differ in how they learn most effectively; most students favour different combinations of visual, auditory, reading, or kinesthetic learning modes. Individual characteristics of the students may be directly or indirectly related to acquiring and mastering a foreign language, English in particular. These conceptions derive from the fact that introvert students who happen to be a quarter of all the students at the FMI, Sofia University, are more unlikely to demonstrate more spontaneous willingness to perform in class and display fluency in the process of developing and improving their speaking skill.

2. The teacher plays a crucial role in the motivational and attitudinal perspectives of the students. According to the final survey conducted by the students at FMI, Sofia University, the teacher is a very important factor for students' advance, and more particularly the former's professional and personal traits. Students will trust and respect the authority of the teacher

3. In the process of TEFL the role of emotions should be taken into consideration. The survey brings up certain secondary findings, which concern the emotional aspect of human behavior of the students in TEFL, i.e. internal factors – personality factors, external factors - socio-psychological and socio-cultural factors, intercultural factors:

a.) Internal factors. It is evident that affectivity in the process of TEFL depends on significant internal factors, i.e. personality factors, such as self-confidence, responsiveness, apprehension, introspection, sociability, and self-motivation.

b.) External factors.

- Socio-psychological factors. Part of them is the attitude towards the language learning/teaching process, which should be considered. As the students at the FMI, Sofia University generally demonstrate positive attitude towards learning GE (General English)

and ESP (English for Specific Purposes), Computer English in particular, they achieve predominantly high grades and high level of fluency. Such high results in their turn strengthen students' positive attitudes and motivation. Similarly, the unfavorable attitude of a small percentage of the students can be reinforced by lack of achievement, thus discouraging the students to make any further efforts to learn the foreign language. Furthermore, in a non-English speaking environment student find it challenging to speak English in formal situations, so obviously they were able to practice their English in limited situations, because both the academic and real-life environment hardly offer opportunities to practice their English. However, they responded that they used English in non-formal meetings, social media, communicating with foreigners, at work.

- <u>Socio-cultural factors</u>. Foreign language learning can be affected by attitudes towards the cultural aspects of TFFL, as well. Learning a language involves getting to know the cultural aspects and culture-related issues of the foreign language in question. The student's positive attitudes towards a foreign language and its culture facilitate learning, while a critical attitude inhibits learning. The students at the FMI, Sofia University, and the majority of all Bulgarian students do not demonstrate or feel any prejudices towards the English language and that fact makes the foreign language learning process highly productive.

- <u>Intercultural factors</u>. They involve ability to avoid or overcome initial cultural shock in a new cultural environment, which refers to foreign students at the FMU at Sofia University. It is observed that foreign students feel more anxious and insecure to demonstrate their full capacity in studying EFL because of apprehension and need of time to adapt (Apart from English foreign students at FMI, SU study Bulgarian as a foreign language). Studying English in a foreign country other than their native countries leads to postponed results. In this case, the cultural differences related to the host country must first be overcome in order for foreign students to proceed with foreign language learning, in this case English, and to cope with cultural challenges. The results of the survey point out that in some cases TEFL is a very complicated process because the teacher belonging to one culture and language (Bulgarian) passes through a second culture and language (English), in order to teach them to students from a third culture and language (North Macedonian, Serbian, Ukrainian, Kosovo).

CONCLUSIONS

To sum up, it is evident that the study of the students' motivation, interests and initiatives is essential for the overall improvement of both students' and teachers' work. In this way students feel respected and significant, while teachers acquire information about how to meet students' needs in class. It is of great importance to compare the students 'expectations at the beginning of the semester with their results at the end of the semester.

The results of the surveys (INA and FRA) conducted at the beginning and the end of 2018/2019 winter semester identify the IT students' attitudes towards learning English in compulsory university courses in General English and Computer English, focus on students' needs to find and apply new working patterns in the classroom, look for fresh solutions to issues which occur during the lessons and summarize effective students' stereotypes of learning English, as well as clearly point to the following conclusions:

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(1) As the study was conducted among IT students of the following Bachelor degrees: Computer Sciences, Informatics, Information Systems, Mathematics and Informatics, Statistics, Software Engineering, almost all of the students stated that they preferred to study modern English idioms, Business English and general lexis, apart from computer-related terminology. The following topics from Computer English: Programming, Websites, Software Development, Psychology, Sociology, Mathematics appear of utmost important to the students.

(2) The academic staff needs to recognize the peculiarities of the students' learning patterns and take them into consideration when organizing the learning process in order to ensure high quality of the study process. The study shows that the effective students' stereotypes of learning English include mostly the audio, the visual and the kinesthetic ones. Thus, more activities aimed at satisfying the needs of the above-mentioned types should be included. It is recommended that the study material should be updated during the semester.

(3) In terms of classroom activities the students prefer interactive activities, conversation practice, role-playing games, making power- point presentations and presenting in front of audience, project work, pair work and team work to reading or writing activities, grammar practice and individual work. Consequently, if the share of the former increases in the English lessons during the semester, the attendance of students in class is also expected to increase.

(4) Personal development is essential to students as well as recognition and evaluation of their efforts. They need teachers to show appreciation of their achievements in order to boost the confidence of the former. According to the students the good teacher appears to be the most significant factor influencing their progress in English.

(5) The majority of the students are oriented towards fast results because on the one hand, a great part of them work in IT companies while studying, and on the other hand, the IT sector is rapidly developing nowadays, thus requiring quick adjustment. Alongside with English their special academic subjects demand quick acquisition of novelties and newly coined terminology derived from these subjects. Consequently, it will be most appropriate to give students to practice self-study tasks that can be broken down into smaller tasks the performance of which will involve the use of technology.

The conclusions of the present study lead to the assumption that the student's attitudes toward the compulsory courses of General English and Computer English are entirely positive. The analysis of the data shows that students' motivation to learn is closely related to teachers' motivation to teach. These are interdependent. The learning/ teaching process in English constitutes a complex interaction of various factors, such as internal and external, socio-psychological, socio-cultural, intercultural. For future studies a research could possibly include analysis of the attitude of groups of different levels in English according to the Common European Framework of Languages, so that the approach to each group can be more precise and appropriate. A future study could also discuss specific questions relating to each group or debate on the gender issue which is not the focus of the present article.

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