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ARTICLE

The Role of ESP in Development of Intercultural Communication and Contribution of ESP to the Process of Globalization

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ABSTRACT

English for Specific Purposes has established itself as a significant and very important branch of Linguistics that can be divided into several sub-branches based on horizontal and vertical division. Horizontal division would imply division of English for Specific Purposes into Language for different professional fields, such as Engineering, Geology, Construction, Economics, Finances, Medicine, etc. whereas vertical division would imply division of ESP according to application medium: translation, interpretation and teaching English as a foreign language, implying teaching English for some concrete specific field. Although ESP requires different methods and approaches depending on the above-mentioned fields and practical applications of the language, some general framework, linguistic laws and approach to acquisition of terminology of certain specific fields can be singled out for branches of ESP. ESP can also be considered as certain means of intercultural communication. As mentioned above, the newly offered classification is based on the principle of horizontal and vertical divisions of the phenomenon of ESP. Horizontal division of ESP would imply already existing division of ESP into English designed for different specific fields whereas vertical division of ESP would imply division of the phenomenon of ESP according to communicating medium: translation, interpretation, teaching of ESP as a foreign language. The aim of newly offered vertical classification of ESP is to contribute to the process of ESP professional formation. On basis of this division we would also like to consider ESP as significant means contributing to the development of intercultural communication and, consequently, to globalization in the 21st century.

Keywords: English for Specific Purposes; Classification; Horizontal Division; Vertical Division; Intercultural Communication; Globalization

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1. Introduction

English for Specific Purposes has become a very important part of Linguistics and different specific fields of human activity. Different branches of ESP have become linguistic expression of various specialties. In this sense, each branch of ESP is the crossroad of language and relevant specific discipline. The widespread of ESP, its successful teaching and application in practice has become significant tool of globalization especially since the beginning of the 21st century and widespread of internet with most part of materials offered in English.

Therefore, development of certain classifications, their consideration and usage for improvement of application of ESP in practice is extremely important. In the current work I present the horizontal (already existing) and a new vertical classification of ESP, the latter being based on modes of application: translation, interpretation, teaching of ESP for occupational and for academic purposes. The current work offers two classifications from the viewpoint of comparison and contrast.

The aim of the present article is to offer the detailed analysis of newly offered vertical classification of ESP in order to illustrate the importance of this classification in general and its significant role both in development of intercultural communication and in the process of globalization. Since the role of ESP in the modern world and its contribution to the process of globalization cannot be overestimated, the newly offered classification would have an impact on practical implication and adequate acquisition of ESP courses.

2. Methodology Used

The present article and research offered in it are based on combination of qualitative research method and application of some review elements in it. The phenomenon of ESP is studied in the natural settings and all the information and findings presented in this article are based on the author's personal experience. The main scientific value of the article is consideration of ESP phenomenon from the viewpoints of already existing horizontal classification and newly offered vertical classification of ESP based on modes of practical application of ESP. The review of the relevant opinions of different scholars of the field is offered in the paper for the purposes of confirmation of certain opinions and illustration of the essence of newly offered ideas.

3. Main Discussion

3.1. English for Specific Purposes

In the present article we suggest new way of classifying English for Specific Purposes, its practical applications from the viewpoint of different specific fields and modes of practical application. The newly offered classification is based on the principle of horizontal and vertical divisions of the phenomenon of ESP. Horizontal division of ESP would imply already existing division of ESP into English designed for different specific fields, whereas vertical division of ESP would imply division of the phenomenon of ESP according to communicating medium: translation, interpretation, teaching of ESP for occupational and for academic purposes. One of the reasons that inspired me to offer this new vertical classification of ESP based on communicating medium was already existing division of verbal interpreting that is divided into simultaneous and consecutive interpretation modes since this division is also based on modes of practical application of such activity as interpretation is. In the present work, I am going to consider the newly offered vertical classification of ESP based on the ESP/LSP phenomenon and English for Medical Purposes (EMP) in particular.

When raising such questions as the role of ESP in development of intercultural communication and contribution of ESP to the process of globalization, it would be expedient to establish interconnection between modes of vertical classification offered in the present work. How could translation, interpretation, teaching ESP for occupational purposes and for academic purposes be interconnected with each other. Considering ESP from the viewpoint of vertical division offered in the present work would entail the question that is crucial for any branch of ESP. That question is: who would become a better ESP professional, a linguist with perfect knowledge of terminology of the field and some knowledge of the essence of the specific field or a specialist of the field with knowledge of English? In my opinion the following components are important and even crucial for the formation of successful ESP professional in

case of linguist who tries to gain knowledge and experience in particular ESP field:

1) Perfect knowledge of general English (GE);

2) Acquisition of terminology of the field;

3) Familiarization with the materials of the field, either through ESP materials or CLIL materials;

4) Cooperation with specialists of the field;

5) Experience of work with terminology of the field.

Thus, the question of who will become a better ESP professional – a specialist of the field with knowledge of English or a linguist with certain knowledge of the field who has successfully mastered all the above given components - is the main issue when dealing with such question as formation of ESP teacher/trainer, translator, or interpreter. Since ESP course can be acquired by both linguists and specialists of the field, it means that absolutely different approaches and results could be anticipated in these two separate cases, each of the candidates having his/her own advantages and disadvantages. In case of English language specialist, the accent will mainly be made on acquisition of specific terminology and its correct usage, whereas field specialists should make accent on both terminology and language issues when acquiring ESP course. The following statement of Kavalir gives arguments to prove the advantage of linguists in view of cultural context: "Interestingly, language teachers teaching a language that is not their mother tongue might have an advantage over native language teachers in this respect, and not just in the sense of being able to point out cultural differences straightforwardly to homogeneous classes: far from being "culturally deficient", they know from their own experience what it means to enter a new, foreign culture with its own set of customs, values and assumptions" [1].

The main aim of presenting of new vertical classification of ESP in the current work is to find ways of formation of ESP specialists, to facilitate this process and serve as complementary basis for ESP specialists training and preparation. Being English language specialist, i.e., linguist, based on my own experience I can say that mastering of ESP happened in my case in the following consequence: familiarization with terminology, gaining experience in field translation and field interpretation, teaching of ESP for occupational purposes, mastering of English for academic purposes. Acquisition of terminology is of crucial importance for mastering of ESP provided that the learner has knowledge of GE on the level of C1 or higher. The process of translation enables the English language specialist to practice the acquired terminology of concrete field of ESP, to find additional terms in the dictionary, to remember them, to be able to successfully apply them in field translation and later in the field interpretation processes. After establishing himself/herself in one particular field of ESP, the knowledge and practical experience could be successfully applied in teaching ESP for occupational purposes and later on when dealing with EAP, of course, provided that foreign language specialist has proper relevant pedagogical preparation and teaching skills. In case of the specialist of the field Certificate in English Language Teaching to Adults (CELTA) could become solution. Thus, knowledge of GE is main precondition for successful acquisition of EMP and any ESP branch in general. English for Academic Purposes or EAP is the highest level of acquisition of ESP including EMP, just as acquisition of idioms is the sign of mastering the foreign language on the highest possible level, mastering of EAP indicates the highest level of acquisition of ESP. In this way we confront the model when practical course of ESP becomes the basis for all above-mentioned modes of practical application of ESP. When the specialists reach the highest level that is EAP, they are involved in academic field and deal with theoretical issues of ESP that in their turn become the basis for successful development of materials that will be applied in practice. Therefore, we deal with the following scheme: Theory - Practice – Theory. Practice is entailed from the theory and is based on the existing theory, i.e., theoretical beliefs of the field, whereas, in its turn, further development of theory is based on the practice, i.e., practical experience acquired in the field, the particular ESP field in this case. **Table 1** gives visual representation of vertical classification of ESP:

Table 1. Vertical Classification of ESP.

Terminology of ESP field
Field translation
Field interpretation
Teaching an ESP course
Mastering of English for Academic Purposes (EAP) of particular ESP field

As it has already been mentioned I think that the best basis for becoming good ESP specialist is the acquisition of ESP course before starting the above-mentioned consequence:

1) Translation;
2) Interpretation;
3) Teaching of ESP for occupational purposes;
4) Teaching of ESP for academic purposes.

One cannot help paying attention on the fact that the above-mentioned consequence partly represents the components of newly offered "vertical classification" of ESP. Successful mastering of ESP depends on the level of knowledge of GE of the ESP learner. If the level of GE is high, equivalent to C1 or C2 the acquisition of terminology will take place smoothly through adapted or even authentic texts. When the level of knowledge of GE of the ESP learner is equivalent to B1, as is often the case with students of certain specialties who start learning ESP, the processes of mastering of ESP course and its terminology will take longer time, requiring specific systematic approach, work with adapted texts, exercises aimed at terminology acquisition and grammar exercises for familiarization with general grammar structures and sentence patterns common to the particular field of ESP. After that ESP learners will be able to be smoothly transferred to work with authentic texts, audio and video materials of the field in order to be prepared for cooperation with foreign colleagues or for work in multinational working environment in the future. The significance of teaching and training in translation and interpretation of specific materials should be taken into consideration when designing and rendering ESP courses to ESP learners.

3.2. EMP as Part of ESP

Any part of ESP is intertwined with such phenomena as culture. Therefore, culture is often integrated into ESP courses either implicitly or explicitly. In this view, Petrova O. mentioned: "when teaching English at a medical university increases students' chances to achieve competence in intercultural exchange, implementing content and language integration, orienting foreign language professional level to intercultural communication skills [2].

It would be rather difficult to be focused on teaching culture to the students, as students might work with representatives of numerous cultures in their future professional lives. Therefore, it would be reasonable to develop certain approaches in the students to raise cultural awareness and be adapted to people of different nations and cultures more easily.

As Dou A. has mentioned: "The integration of cultural education into ESP education is supported and inspired by various theories, with the core being the theory of intercultural communication. This theory delves into the close connection between language and culture asserting that language is not only a tool for exchanging information but also a key means of understanding and expressing culture" [3]. When it comes to the field of EMP, I think that the following statement of Dou A. is especially important for EMP: "In ESP education, learning language extends beyond vocabulary and grammar to include an understanding and application of the meanings and uses of language elements within specific cultural contents" [3]. "In some cultures, direct and explicit communication is seen as efficient and a symbol of clarity, while in other, indirect and implicit ways are preferred [3]. Since culture is often integrated in ESP syllabus, its different aspects are offered in all ESP courses. As stated by Dou A.: "These differences are crucial in professional English learning as they directly influence how learners understand and apply language within their specific fields. In ESP education, teachers need to help learners recognize and adapt to these cultural differences, enabling them to communicate and collaborate effectively in a multicultural environment [3].

Internationalization of ESP courses is one of the cornerstones of contribution of ESP to globalization. Such Internet platforms as Moodle (Moodle Cloud, www.moodle.org, www.moodle.com) could be used as significant means for achieving the above-mentioned goal. Dou A. expressed a similar opinion describing it in his work "Intercultural Communication in ESP Education" mentioning: "Some ESP courses use virtual platforms and online collaboration tools to simulate international work environments, further strengthening students' cross-cultural communication skills. These platforms provide students with opportunities to communicate with people worldwide, helping them practice handling cultural differences and communication barriers in a safe environment. Direct interaction with instructors and peers from different cultural backgrounds is

also essential way to cultivate students' intercultural competence. Through group discussions, collaborative projects and cultural exchange activities, students can learn and experience from diverse cultural perspectives, building confidence in effective communication in diverse environments. These intercultural teaching methods not only broaden students' cultural perspectives but also lay the foundation for their success in a globalized environment" [3]. He also stated: "ESP education not only needs to cover language knowledge but also requires an in-depth understanding of vocabulary usage in specific cultural contexts. Teachers can assist students in understanding and adapting to these differences through methods such as case studies, role playing and discussions, enhancing their communication abilities in international environments" [3].

The importance of the phenomenon of "culture" in ESP is evident from the very beginning of teaching ESP courses to ESP learners. The significance of this phenomenon in ESP course is very clearly described in the following statement of Dou A.: "Inclusive education involves considering not only each learner's cultural background but also their differences in learning styles and language abilities. In the course design process, educators need to comprehensively consider these factors, choose materials, suitable for students with multicultural backgrounds, and employ diverse teaching methods. For instance, courses can incorporate cases from different countries and cultures, not only aiding students in seeing reflections of their own culture but also promoting understanding and respect for other cultures. Through this approach, students can enhance their awareness and understanding of multiculturalism while learning the language" [3].

In his other statement regarding role of culture in ESP Dou A. mentioned: "The integration of cultural education into ESP education is supported and inspired by various theories, with the core being the theory of intercultural communication. This theory delves into the close connection between language and culture asserting that language is not only a tool for exchanging information but also a key means of understanding and expressing culture" [3].

The importance of cultural components in ESP program is precisely described by Qattous K. in his thesis: "The ESP program should present the trainees with activities that make them live the cultural experience in focus by being involved in a communicative situation that encourages them to feel and behave according to the regulations, rules of behaviour, principles of work and value system in the organization" [4].

As per Sinkus and Ozola "Nowadays, the English language is viewed as an international language and a means of intercultural professional communication in the globalized world [5]. Developing students' intercultural communicative competence is considered to be one of the responsibilities of ESP teachers, so integrating intercultural dimension in the professional English course is of paramount importance" [5].

3.3. Newly Offered Classification of ESP

As it has already been mentioned earlier one of the novelties of the present work is newly-offered vertical classification of ESP. On the examples of English for Medicine, we can consider vertical division offered in the present article as EMP rendered through such medium as field translation; field interpretation, teaching of EMP course at higher education institutions or during trainings rendered for medical interpreters. The highest level of working with any ESP course is acquisition or teaching of ESP course on academic level. Both translation and interpretation represent form of immersion method when EFL or field specialists is "immersed" into specific language and has to work with terminology and acquire more experience in the language field.

The well-known scholars have several ideas regarding this issue. As stated by Jong K, Perdomo B: "the aim of the ESP course is not to teach the content of the article, but to teach high-transfer skills that are only incidentally being developed through texts that are the same as or similar to those used on their content courses" [6]. As stated by Salmic N.: "authentic materials designed for native speaker medical students need to be adapted for use in the EMP classroom, and here, general ESP skills come into play" [7]. Actually, both these citations of the above-given authors refer to method of immersion into materials written in the English language that is to some extent similar to CLIL. The corresponding work on CLIL materials and ESP texts should be done to enable students to be immersed in authentic texts of their correspondent specialty and to be able to successfully work with such materials in their future professional lives.

Thus, EMP as any branch of ESP requires eclectic approach, i.e., usage of several teaching methods: grammar-translation method, audio-visual method, communicative method, CLIL, etc. The importance of development of reading proficiency and acquisition of medical terminology through reading of specific texts is of ultimate importance. When dealing with EMP all the above-mentioned methods of teaching EFL should be applied, but special attention should be paid to communicative method as communication plays very important role in medical environment. As Madiseh F. mentioned in the article "Material development for ESP: a case study of an in-house course-book for Medical English": "researcher/ESP teacher felt the need to develop material that would fit the context of Medical English and be suitable for enhancing students reading comprehension proficiency and vocabulary learning, while also motivating them to learn and preparing them for their future" [8]. Since communication is very important in medical context it is very important to apply audio-visual method and communicative method in a proper way. Integration of dialogues and case studies both in written and audio-video forms would contribute to development of communicative competence in ESP/EMP learners. As Baeva T. and Abramova Y. mention: "Ultimate goal of this tutorial is providing the students with the opportunity to read specialized literature, write research papers and acquire communicative competence in their specialized fields of medicine in the future with the help of broad knowledge of medical terminology" [9]. Of course, the significance of dialogues in EMP refers to clinical communication i.e. doctor – patient communication. Different methods and means should be used in order to develop communicative competences in EMP learners, case-studies and dialogues can be used as significant means for achieving this goal. As stated by Salmic N.: "The implementation of the case study approach is of great importance in teaching English for medical purposes because the medical topics presented to students are familiar to them and medical terminology is applied to language learning [7]. As mentioned by Baeva T. and Abramova Y.: "The case study is so structured as to serve the communicative function and provides the necessary content" [9]. Besides, case studies, it should be noted that for the purpose of illustration of real communication between doctors and patients the role of dialogues is more important in EMP than in any other field of ESP.

4. Medical Terminology – Rules of Formation

Terminology of different ESP fields represents significant part of any ESP branch and the division of ESP both from horizontal and even from vertical points of view is mostly dependent on terminology phenomenon. Therefore, proper rendition of terminology is one of the main aims of any ESP course. The role of texts on specific topics and integration of CLIL components into ESP courses would play a significant role in the process of teaching and learning the ESP courses. Terminology represents a very important part of any ESP branch, as any ESP branch represents ordinary language combined with terminology. Speaking about ESP, one should also take into consideration the role of Latin in English for Medicine, the LSP, thus considering English medical terms comprising Latin and Greek roots as separate phenomena and the presence of purely Latin words and phrases in LSP as two absolutely different phenomena. Usage of Latin for Medicine can be considered to be the earliest example of ESP. As Bowker L. and Hawkins S. mention: "Although medical terminology has inherited a number of compound terms directly from Greek and Latin sources (e.g., apoplexy, hypochondria, ophthalmia, conjunctiva), most modern medical compounds are in fact English language formations built from Greek or Latin elements [10]. Such modern coinages are generally known as neo-classical compounds". "… these compounds are the results of two factors: (1) a continued growth in medical knowledge long after the living forms of the classical languages had died off and petrified into a static written tradition, and (2) a historical reliance upon classical texts and languages in the learned European tradition" . The same authors later on mention: "A compound is typically made up of two Greek or Latin combining forms joined by a linking vowel (normally -o-). For example, in dipsomania (alcoholism) the combining form dipso- (root dips-, combining vowel -o-) is joined to the word mania. virtually all the complex words of Greek-Latin origin are built up from simpler, smaller parts. If the meanings of the smaller parts are known, it is theoretically possible to deduce the meaning of the complex word itself. For example, the term otorhinolaryngology can be broken down as follows: oto- 'ear,'

rhino- 'nose,' laryngo- 'larynx,' and logo- 'study.' Therefore, otorhinolaryngology is the study of the ears, nose and larynx" [10].

In order to illustrate the basic rules of formation of modern English medical terminology, I decided to illustrate common roots, prefixes and suffixes as main constituents of English medical terms (see **Tables 2, 3, 4**). Thus, the meaning of specific medical terms can be worked out on basis of knowledge of the existing roots of Greek and Latin origin, prefixes and suffixes. It is worth mentioning that linguistic phenomenon of semasiology is present in the above-mentioned constituents of modern English medical terms, therefore the learners should be especially attentive when trying to understand the meaning of the term on basis of immediate constituents. Otherwise, the roots, prefixes and suffixes mentioned below exhibit examples of polysemy and homonymy and synonymy on the level of these constituents, e.g.:

Roots: -nephr-, -ren- meaning "kidney",

- nas- -rhin – meaning "nose";

Prefixes: semi- hemi meaning "half",

- bi- di - meaning "two";
- poly-, multi- meaning "many";
- macro-, mega- meaning "large", "huge";
- in- meaning into;
- in- meaning "not".

Homonymy on examples of suffix: -gen - meaning "origin"; -gen meaning "essence".

Table 2. Common Roots of Medical Terms of Latin and Greek Origin.

Root	Meaning	Examples
Aden/o	gland	Adenalgia; adenoma
Adren/o	adrenal	Adrenaline, hyperadrenalism
Arthr/o	joint	Arthritis. arthrotomy
Audi/o	hearing	Audiology, audiometer
Bacill/o	bacillus	Bacillosis, basilloscopy
Bacteri/o	germ	Bacteriology, bactericide
Bi/o	life	Biology. biosynthesis
Bronch/o	bronchus	Bronchitis, bronchospasm
Carb/o	carbon	carbohydrate
Cardi/o	heart	Cardialgia, cardiectasis
Cephal/o	head	Cephalopathy, cephalotomy
Cerebr/o	brain	Cerebrum, cerebrospinal
chiro	hand	Chiropractor, chirospasm
Chlor/o	Green, cloride	Chlorophyll, chloromycetin
Chrom/o	colour	Chromosome, chromosgenesis
Cyt/o	cell	Cytobiology, cytoxin
Dent/o	tooth	dentalgia
Electr/o	electricity	Electrolysis, electrophoresis
Encephala/o	brain	Encephalitis
Enter/o	intestine	Eneteritis, enterococi
Erythr/o	red	Erythrocyte, erythromyan
Fibr/o	fiber	Fibroma, fibroblast
Fibrin/o	Fiber, protein	Fibrinogen, fibrinolysin
Gastr/o	stomach	gastroptosis
Glyc/o	sugar	Glycolipical, glycosuria

Table 2. *Cont.*

Root	Meaning	Examples
Gynec/o	woman	Gynecology, gynecopathy
Hem/o	blood	Hemoglobin, hemophilia
Hepat/o	liver	Hepatectomy
Hist/o	tissue	Histology, histotherapy
Hom/o	same	Homogeneous, homoplasty
Hydr/o	Water, hydrogen	Hydrolysis, hydroquinine
immune	Immune from	Immunology, immunotherapy
Leuk/o	white	Leukocyte, leukemia
Ling/o	tongue	Lingula, linguogingival
My/o	muscle	Myocarditis, myofibroma
Nephr/o	kidney	Nephralgia, nephritis
Neur/o	nerve	Neurology, neurosis
Ophthalm/o	eye	Ophthalmocopia, opthalmorrhea
Oste/o	bone	Osteoma, osteoporosis
Path/o	disease	Pathogen, pathology
Pharmac/o	Medicine	Pharmacology, pharmacy
Pneum/o	lung	Pneumonia, pneumothorax
Psych/o	mind	Psychiatry, psychology
Pyr/o	heat	Pyrogen, antipyrethic
Radi/o	Rays, radium	Radioactivity, radiotherapy
Ren/o	kidney	Renopathy, renography
Rhin/o	nose	rhinitis
Scler/o	hard	Scleroderma, sclerosis
Spir/o	breath	Spirograph, spirometer
Thora/o	chest	Thorascope, thoracoplasty
thromb	Blood coagulation	Thrombocyte, thrombosis
Trachw/o	windpipe	Tracheorrhagia, tracheotomy
Ur/o	urine	Urology, uroscopy

Table 3. List of Common Medical Prefixes.

Prefix	Meaning	Examples
a-	none	asymptomatic
Ante-	before	Anteflexion, antenatal
Anti-	against	Antibiotics, anticoagulant
Auto-	self	Autoimmune, autoxidation
Bi-	two	Bilateral, bicarbonate
Contra-	Against, opposed to	Contraceptive, contraindication
Counter-	Against, opposed to	Counteragent, counteraction

Table 3. *Cont.*

Prefix	Meaning	Examples
De-	Apart, away	Detoxification, decomposition
di-	double	Dioxide, diplegia
Dis-	Apart, away	Disinfect, discolour
Dys-	obstacle	Dysfunction, dyspepsia
Endo-	Inside, internal	Endocarditis, endocrine
Epi-	Upper, surface	Epigastrium, epidermis
Exo-	Outside, external	Exocrine, exotoxin
Hemi-	half	Hemicrania, hemiplegia
Hyper-	Over, above	Hypertension, hyperthyrodism
Hypo-	under	Hypotension, hypothyrodism
In-	into	Inhalation, injection
In-	not	Invalid, insane
Infra-	below	Inframmatory, infrared
Intra-	Inside, through	Intracranial, intravenous
Macro-	large	Macrocyte, macromolecule
Mal-	bad	Malformation, malnutrition
Mega-	huge	Megacardia, megacolon
Micro-	Minute, small	Microbiology, mycrocyte
Mono-	single	Monocyte, mononucleosis
Multi-	many	Multicellular, multinuclear
Neo-	new	Neomyan, neoplasm
Para-	Alongside, secondary	Paratyphoid, parathyroid
Peri-	around	Peritonsillitis, pericarditis
Poly-	Many, much	Polyplegia, polyuria
Semi-	Half, partial	Semicircular, semicoma
Sub-	Lower, under	Subabdominal, subcutaneous
super	Abundantly, over	superficial
Supra-	Above, over	Suprarenal, supramolecular
Tetra-	four	Tetracycline, tetracaine
Tri-	three	Triceps, trigeminus
Uni-	one	Unicellular, uniovular

Table 4. List of Common Medical Suffixes.

Suffix	Meaning	Examples
-algia	pain	Arthralgia, cephalgia
-blast	To become a cell	Neuroblast, osteoblast
-cyte	cell	Erythrocyte, leucocyte
-ectasis	enlarge	Gastroectasis, bronchiectasis

Table 4. *Cont.*

Suffix	Meaning	Examples
-ectomy	Cut away	Appendectomy, duodenectomy
-emia	Blood disease	Bacteremia, leukemia
-gen	origin	Pathogen, glycogen
-gen	essence	Androgen, estrogen
-genic	Nature, gene	Pyrogenic, radiogenic
-gram	Picture, image	Hemogram, electrocardiogram
-graphy	Picture-taking, imaging	Bronchography, mammography
-iasis	disease	Ascariasis, cholelithiasis
-it, -is	inflammation	Bronchitis, encephalitis
-logy	The study of	Cytology, pathology
-oid	Form, shape	amoeboid, lymphoid
-osis	illness	Cirrhosis, mycosis
-penia	Lack, disease	Leucopenia, thrombopenia
-plasm	form	Protoplasm, neoplasm
-plasty	Way to form	Gastroplasty, dermatoplasty
-plegia	paralysis	Paraplegia, diplegia
-ptosis	fall	Nephroptosis, hysteroptosis
-rrhage	Flow discharge	Hemorrhage, lymphorrhage
-rrhagia	Burst, flow	Gastrorrhagia, pneumorrhagia
-rrhaphy	sowing	Cardiorrhaphy, celiorrhaphy
-scope	mirror	Bronchoscope, otoscope
-scopy	examination	Bioscopy, gastroscopy
-tomy	Removal by excision	Ovariotomy, tracheotomy

Tables 2–4 give the list of most common roots, prefixes and suffixes of Greek and Latin origin that constitute the majority of medical international terms including those included in the English language. Table 2 offers the list of common roots of Latin and Greek origin, their equivalent meaning in English and examples of medical terms assimilated in English.

Table 3 gives us the list of most common prefixes used in formation of medical terms. Many of them have international character, but some of them represent examples of word formation rules in English. The table includes the prefixes themselves, their meaning in English and examples of medical terms in which these prefixes are used.

Table 4 represents the list of most common suffixes that are used in formation of English medical terms. Most of them have Greek and Latin roots.

The illustration of formation of medical terminology with help of above-given tables of common roots, prefixes and suffixes gives the ESP learner insight into the world of medical terms. The knowledge of roots, prefixes and suffixes given in the table enables one to work out and understand the meaning of medical terms even if it is met for the first time and initially seems to be completely unknown for the ESP learner.

Although the principle of understanding of medical terms on the basis of knowledge of roots of Latin and Greek origin and rules of affixation, suffixation and word formation helps tremendously, the real acquisition of terminology, as is usually the case with any ESP branch, happens on the basis of reading of specific texts. In this view

it is very important to integrate specific texts from the very beginning of ESP course and gradually ensure integration of authentic specific medical texts, in this way applying methodology of CLIL.

I would classify ESP as the linguistic approach to a certain specialty. Proper linguistic approach ensures proper expression of ideas, adequate realization of goals, and achievement of desirable results. In the field of Medicine and EMP these results are especially important and visible as the effectiveness of communication between doctor and patient is revealed immediately whereas correctness and adequacy have crucial importance.

English for Medical Purposes, in turn, has several specific classifications. Thus, EMP is divided into two main branches: EMP for clinical communication and EMP for academic and scientific purposes. It is also important to distinguish between two different types of medical communication: 1) communication between doctors/medical specialists and 2) communication between doctors/medical specialists and patients. It is evident that different terminology and different registers are applied during these two types of medical communication.

The purpose of EMP course is similar to the purpose of any ESP course and is aimed at development of the following skills in the ESP learners:

1) Acquisition of terminology;

2) Ensuring effective communication in specific (medical) environments;

3) Enabling ESP/EMP learners to read specific texts;

4) Enabling ESP/EMP learners to acquire new information from the internet, books and scientific articles;

5) Enabling ESP/EMP learners to interact with foreign colleagues.

Mastering all the above-mentioned components of the ESP/EMP course will lead to successful work and fulfillment of tasks in all branches of the vertical division of ESP. Thus, knowledge of terminology will ensure successful translation and interpretation process. It will become a good basis for teaching an ESP course. This knowledge will also become the basis for successful communication in a medical environment through interpretation; the knowledge of terminology and experience of working with specific texts, as well as experience in translation and interpretation, will enable specialists to work with specific texts even on the academic level.

5. Theoretical Review of Culture, Intercultural Competence, Cultural Awareness in View of ESP

Since the present article implies consideration of role of ESP in intercultural communication it would be expedient to consider culture, intercultural competence and cultural awareness in view of ESP. The following description of intercultural communication is given in www.wikipedia.org "Intercultural communication is the idea of knowing how to communicate in different parts of the world" [11].

Culture represents the invisible phenomenon that is closely intertwined with the language of that culture and has an impact on any field of human activity. Most of the revelations of culture can be clearly recognized and described, yet a lot of underlying processes precondition them and ensure these revelations of culture in many spheres of human activity, including ESP. According to Hall's Iceberg model of culture, as given in the article of J. Zoni Lepton, the following are cultural components that are "easy to see": language, folklore, dress, fine arts, literature, holidays and festivals, food [12]. The cultural components that are "difficult to see": beliefs and assumptions, family roles, core values, relation and authorities, self-concept, manners, biases, body language, beauty ideals, interpretations, concept of cleanliness, attitude toward schools, family values, gender roles, approaches to health and medicine, rules of conduct, humour, pride, concept of justice, notions of modesty, attitude toward the environment, competitiveness, expectations, childrearing practices, work ethic, thought patterns, gestures, personal space, aesthetics [12].

Sinkus and Ozola mentioned: "An exploration of Hall's Iceberg Model of Culture followed and, working in pairs, the students placed different aspects of culture in one of two categories: easily recognised – Iceberg's part above the water; and recognised only when very familiar with the culture – Iceberg's hidden part, below the water. For example, in the visible part of the Culture Iceberg there was language, art, music, style, mimic, food, etc.; in the invisible part of the Culture Iceberg, there was worldview, religion, respect for authority, status, how friendship is

understood, how emotions are managed, values, spiritual beliefs, etc." (**Figure 1**) [5]. On the basis of Hall's Iceberg model, the notion of politeness represents the "hidden part of the iceberg". In this respect Cambonero stated: "Different cultural understandings of politeness may influence the manner in which language is used, and cultural differences in business or academic communication may lead to varying interpretations of professional terminology [13]. Qattous mentioned: "Even though scientists around the world can study the same phenomena of nature, the way they approach problems may differ for they are based on ways of thinking that are shaped to a large extent by their cultures through educational systems, philosophies and political systems. Science education influences dramatically the development of the cultural perspectives on science [4]. Frelick and Van Naerssen mention that since professional fields are as influenced by cultural assumptions as any other area of life, a better understanding of these differences and the theories behind them may enable all of us to achieve more meaningful cooperative results in the attempt to bridge the barriers of language and tradition" [14].

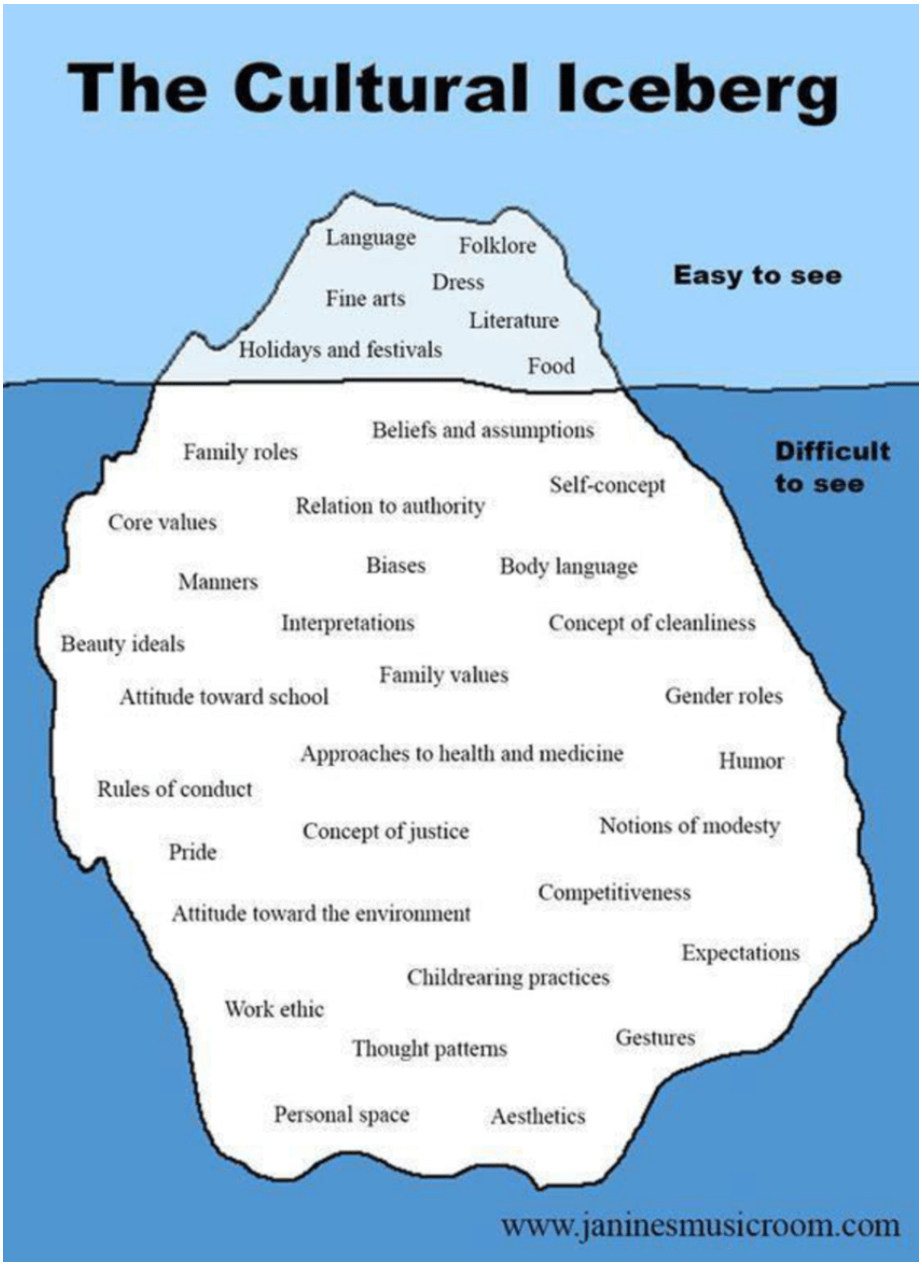

Figure 1. Hall's Iceberg Model of Culture [15].

In my opinion, the following opinions of well-known scholars regarding the phenomenon of culture and its relation to language and cultural awareness would also be relevant to the present work and ideas developed in it.

The idea of interconnection between language and culture is expressed by Maria Bunedia Cambonero: "It is widely accepted that language learning implies cultural comprehension alongside linguistic acquisition" [13]. Frelick and Van Naerssen also mention: "Language is like a mirror. It can clearly reflect the cultural connotation of a language. The two depend on each other. To understand a language, we must first understand culture, and learning culture must master language" [14]. As Khalki S. stated, such a relationship between language and culture raises attention to learning culture through language teaching [16]. Qattous K. who cited Widdowson in his PhD thesis states: "it is not the business of language teaching to bridge the cultural gap, that a concern for culture can indeed be a distinction from more pressing pedagogic matters, and that the acquiring of cultural knowledge, in so far as this is relevant to language learning as such, is a corollary and not a condition of the language learning process" [4]. Hutchinson T. and Waters A. (1987) added that what differentiates ESP from GE is the realization of learners' needs since ESP students know exactly why they need English" [17]. As per the opinion of Sinkus T. and Ozola I. expressed in their article: "Nowadays, the English language is viewed as an international language and a means of intercultural professional communication in the globalized world [5]. Developing students' intercultural communicative competence is considered to be one of the responsibilities of ESP teachers, so integrating intercultural dimension in the professional English course is of paramount importance" [5]. Thus, various aspects should be taken into consideration when designing ESP courses. The integration of culture is one of them. In this respect important advice was given by Fielden L. and Rico M. in their article: "educators should adopt pedagogical strategies to incorporate integrative and cultural motivational into the language curriculum and to develop an awareness of the ways in which culture interrelates with language, a particularly acute need given the times we live in today" [18]. This idea of Fielden L. and Rico M.could be supported by the following statement of Sinkus T. and Ozola I. given in the article: "the authors of the research attempted to design an appropriate ESP syllabus focusing not only on professional English language teaching but also on intercultural knowledge, skills and attitudes' development of undergraduate IT students" [5]. Steven Graham mentioned the following about cultural impact: "Thinking in this way whilst trying to consider cultural aspects is difficult – it is, perhaps, impossible. We suspect, however, that the quest, the consideration of factors, the act of thinking carefully about cultural impact, will make us all better teachers – and, perhaps, better members of society" [19].

Speaking about phenomenon of intercultural competence, one cannot help mentioning Sinkus T. and Ozola I. in their article "Integrating Intercultural Dimension in ESP Course for Undergraduate IT Students": "According to Leung, intercultural competence is the "ability to function effectively across cultures, to think and act appropriately, and to communicate and work with people from different cultural backgrounds either at home or abroad" [5]. As per Luka I. who stated: 'Raising cultural awareness means that people are able to perceive positive and negative aspects of cultural differences' [20]. Intercultural competence is viewed as an ability to see and understand differences in one's own and other people's cultures and countries, accept them and react accordingly in conversation and behaviour, treating people in a way that is not offensive, scornful or insulting to members of other cultures. At the same time, it includes the knowledge of one's own nation and culture, and awareness of their value, preservation and development in order to form a meaningful interaction and sustain intercultural dialogue between different nationalities, religions and cultures" [20]. When it comes to such cultural phenomenon as intercultural communication, it is worth mentioning words of Ten: "Intercultural communication is "the act of understanding and being understood by, an audience of another culture" [21].

Culture and cultural awareness are phenomena that are extremely important for any ESP branch especially for EMP. As for cultural awareness, Baranovskaja I. and Skorupa P. mentioned: "The development of people's cultural awareness leads them to better critical thinking about, sensitivity to, and tolerance for both their own culture and the culture of the others" [22].

The role the phenomenon of culture plays in communication and the purpose of cultural/intercultural/cross-

cultural awareness is clearly explained by Khalki S.: "To use cultural awareness as a fostering factor for developing communicative competence in the target language" [16]. Ten also mentions: These are the levels of intercultural communication: 1) regional communication (occurs when the source and receiver are from one region); 2) national communication (refers to situations in which the participants are the same nation; 3) communication between civilizations (members of communication are from different civilization) [21].

Since this article discusses the phenomenon of ESP on example of EMP, it would be expedient to bring the definition and role of culture in medical field stated by American Medical Association: "The Knowledge and Interpersonal skills that allow providers to understand, appreciate, and work with individuals from cultures other than their own. It involves an awareness and acceptance of cultural differences: self-awareness; knowledge of the patients' culture; and adaptation of skills" [23].

On the example of EMP we can see that vertical classification of ESP through its subclasses: translation, interpretation, teaching of ESP for occupational purposes, teaching of ESP for academic purposes, illustrates the role of ESP and EMP in particular in development of intercultural communication. Successful communication between patient and doctors as well as successful communication between medical specialists from different countries can be possible only owing to ESP and Latin for Medicine that is earliest example and predecessor of LSP. Therefore, one cannot help diminishing the role of ESP in intercultural communication, EMP being its brightest example.

In addition, one should mention that being the means of communication and promoter of intercultural communication, EMP as any other branch of ESP is very important means of globalization as both ESP and intercultural communication are very important phenomena making significant contribution to globalization. ESP and its subclasses of vertical classification of ESP offered in the present article would play an important role in such questions as unifying people throughout the world, thus promoting globalization.

Recently the intercultural communication has been paid much attention during ESP studies in many countries including Serbia. As mentioned by Miric B. and Bakic N.: "ESP instructor should map out pointers for students that will make them grasp the idea of cultural competence in healthcare:

(1) Teach basics of cultural competency and ground rules of intercultural communication. This is an initial step in preparing students (as future health care providers) for interaction with people of other cultures.

(2) Enable them to understand and accept people from other cultures as individuals with other distinctive perspectives, values and behaviors.

(3) Help them to see and understand that such interaction is an enriching experience (by showing lot of examples).

(4) Teach students the knowledge of social processes (such as assimilation and demarginalization of certain cultural groups).

(5) Introduce comparing and contrasting in class. They are very important because students need to be able to see how misunderstandings can arise and how to resolve them. By comparing and contrasting two or more cultures side by side and seeing how each might look from the other perspective, students can see how unintentional misunderstandings occur in both spoken and written language.

(6) Focus on skills of discovery and interaction. This means the ability to acquire new knowledge of a culture and cultural practices and the ability to operate knowledge, attitudes and skills under the constraints of real-time communication and interaction" [24].

In my opinion, both already existing horizontal classification of ESP implying English for various fields of human activity, and newly offered vertical classification of ESP based on distinguishing such practical modes of ESP as: field translation, field interpretation, teaching of ESP for occupational purposes and teaching ESP for academic purposes contribute to development of intercultural communication and represent significant means for promotion of globalization. In this sense ESP can be defined not only as linguistic but as important social phenomenon.

6. Conclusions

To summarize the main idea of this article, I would like to mention that considering already existing "horizontal classification of ESP" and presenting the newly offered "vertical classification of ESP in this article is the step towards explaining the knowledge and experience neces-

sary for formation of ESP specialist. The following are the components of the above-mentioned vertical classification o ESP: terminology acquisition, experience in field translation, experience in field interpretation, teaching ESP for occupational purposes, mastering of English for academic purposes in the specific field. The practical implication of this model would contribute to facilitation of ESP professional's formation process with the impact into globalization in the future.

Based on the information given in the article we can say that both already existing horizontal division of ESP and newly offered vertical division of ESP are equally important for classifying ESP, distinguishing the roles of the classes and, consequently, contributing to the process of teaching, learning, acquisition of terminology, translating, interpreting and working with academic and scientific ESP materials.

This is tremendously important in view of the role the different branches of ESP play in the modern world when most of the materials and information on the internet are available in English and when international professional communication is mainly implemented in English. This idea was very well expressed by Corrizzato S. and Goracci G.: "the English language which is not considered a language of identification anymore, but a language of communication" [25]. Provided that most of the specific materials are offered in English nowadays, ESP has become important means of ensuring international professional communication and also facilitation of intercultural communication, in this way significantly contributing to the process of globalization worldwide.

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