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## **LANGUAGE AND CULTURAL BARRIERS IN WRITTEN COMMUNICATION IN DENTISTRY**

This work aims at identifying the language and cultural barriers the Ukrainian dental professionals and researchers experience in international communication (written canal). We have made an attempt to investigate the natural tendencies in writing and reading profession-related and academic texts, as well as to analyze understand strategies the Ukrainian writers / readers use during the interactions to overcome language and cultural barriers.

**Key words:** English as a second language, dentistry, professional written communication, language and cultural barriers.

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## **МОВНІ ТА КУЛЬТУРНІ БАР'ЄРИ ПРИ ПИСЬМОВОМУ СПІЛКУВАННІ У ГАЛУЗІ СТОМАТОЛОГІЇ**

Метою запропонованої статті було виявити мовні та культурні перешкоди, що виникають при письмовому професійному спілкуванні англійською мовою у вітчизняних фахівців у галузі стоматології. Було зроблено спробу дослідити природні тенденції та найтипівіші помилки при написанні та читанні фахових текстів, а також проаналізувати стратегії, що їх використовують вітчизняні фахівці під час іншомовної інтеракції, щоб подолати зазначені вище перешкоди.

**Ключові слова:** англійська мова, стоматологія, професійна письмова комунікація, мовні та культурні перешкоди.

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## **ЯЗЫКОВЫЕ И КУЛЬТУРНЫЕ БАРЬЕРЫ ПРИ ПИСЬМЕННОМ ОБЩЕНИИ В ОТРАСЛИ СТОМАТОЛОГИИ**

Цель статьи – выявить языковые и культурные барьеры, возникающие в украинских стоматологов при письменном общении на английском языке. Также была предпринята попытка исследовать естественные тенденции и наиболее типичные ошибки при написании и восприятии специальных текстов, а также проанализировать стратегии, используемые украинскими специалистами для преодоления указанных выше барьеров при иноязычном взаимодействии.

**Ключевые слова:** английский язык, стоматология, профессиональная письменная коммуникация, языковые и культурные барьеры.

**Introduction.** Globalization, political and social changes in Ukraine have created a situation in which health care professionals have begun to foresee themselves as part of international scientific exchange and communication. Because of growing internationalization of corporate activities, individuals from different cultures are in more frequent contact than in the past. Scholarly interest has therefore been stimulated in studying the concept of culture and its impact on the formulation of corporate strategies.

Rapid pace of change in science and technology, professional communication and public communication of science, implementation of GILT (Globalization, Internationalization, Localization, Translation) conception as well as qualifying English language proficiency of candidates for university work contracts create strong incentives for Ukrainian scholars to improve their English skills for occupational purposes as well as their academic multi-literacy (T. Yakhontova, 2001, 2006). The Ukrainian government has pointed out the importance of learning English language as well by declaring 2016 as the year of the English Language in Ukraine. Non-governmental Go Global initiative aimed at raising awareness of opportunities that foreign languages provide has determined enhancement of all foreign languages capabilities and English language skill intensification as priorities for 2016.

The past decade Ukraine has experienced in the number of English-taught degree programmes and faced the growth of international student population.

Therefore, the most effective faculty and administrative staffs in Ukrainian educational institutions consider English as indispensable for their job. Scholars have begun to request courses in skills relevant to publishing in English in order to enhance their chances of seeing their work accepted by international journals. Until very recently Ukrainian scholars had little or no chance to use English for real academic purposes in their undergraduate and postgraduate degrees, in contrast to many of their colleagues in European countries such as the Netherlands, Finland and Germany. This means that Ukrainian scholars in most fields usually need to make tremendous efforts to adapt to the discourse practices prevalent in international journals in English. By integrating into global research environment, Ukrainian scientists have to face some of the barriers to international research collaboration. These barriers fall into two main categories: cultural and language.

The nuances of language-context relationship are the most evident in professional discourse settings and this can pose a key interpretive challenge for colleagues of the same field as well as for applied linguists. Each health care profession is known to have a different culture which includes values, beliefs, attitudes, customs and behavioural patterns. These professional cultures contribute to the challenges of effective international teamwork [2, 4, 7, 11]. Increasing specialization has led to even further immersion of the learners into the knowledge and culture of their own professional group. Nowadays dentistry is described as a well established professional discourse community [8]. Despite the importance of dentistry as a practice and a science, despite profound social and anthropological significance of dentistry discourse, it is still one of the least studied phenomenon from linguistic, cognitive and communicative standpoints. Therefore, the main facets of dentistry discourse require detailed coverage from linguistic point of view that may be reliable and fruitful when based on close co-operation with professional practitioners, field insiders.

Many recent reports have stressed that science and professional communication necessarily involves and includes cultural orientations [3; 5; 10;

13]. There is an extensive literature documenting language, cultural, and other communication barriers in health care and medical science. It is a challenging task to attempt a review and a summary of such an extensive and diverse literature. But surprisingly little is known about how language-discordant mobile medical / dental professionals and medical researches, i.e. those, who work in foreign countries, cultures and languages, interact with their colleagues and what challenges they encounter with. This is a highly relevant issue considering the growing number of Ukrainian dental professionals involved and seeking chance to be engaged into staff and researchers' mobile programs.

**Objectives.** The present report seeks to identify the most commonly prevalent barriers the Ukrainian dental professionals and researchers experience in international communication (written canal) by investigating their natural tendencies in writing and reading professional and academic texts, as well as to understand communication strategies they use during the interactions to overcome language and cultural barriers. Understanding barriers to communication faced by Ukrainian scientists in international environment and recognizing accommodation strategies they employ could help in planning strategies in providing high-quality English language training to future health care professionals and researches.

**Study design.** The study is based on our experience in teaching English language for scientific communication to post-graduates majoring in Dentistry. It also enrolled 50 doctors of Dental Medicine and Dental Surgery (English language proficiency ranged from A 2 to B2) lecturing at the Ukrainian Medical Stomatological Academy. Respondents were asked to complete a special questionnaire after explaining the purpose of the study and securing their consent. The inclusion criteria were as follows: participation in international scientific and professional meetings; submitting research papers to high-impact international journals; delivering educational services to international students at the Academy. The study design involved needs analysis questionnaires and interviews, and qualitative analysis of findings obtained.

**Results and discussion.** Communication problems stem from many factors. The respondents realize that oral speech is different from written prose, and one should not use the logic of oral language in formal academic writing. The self-assessment of their language proficiency was mainly concordant with findings obtained by objective assessment. The respondents demonstrated different abilities in their productive and perceptive skills. 74% of them showed good skills and proficiency to read, analyze and comprehend scientific written texts of various genres existing in international dentistry around the world, e.g. research articles on current and developing issues in dentistry, clinical information in such areas as biomaterials, pharmacology, cosmetic and esthetic dentistry as well as general dental practice, reports on the increasingly important relationship between dental health and overall health; explorations of practice building and legal topics; continuing education programs. Specialized texts of various genres mediate between expert knowledge, language and culture specificity. The respondents can set goals for their reading, note the structure, or organization of the text, and often create a mental overview or outline of the text to help them decide whether it is relevant to their goals. They are adept at using their background knowledge to make predictions about what might happen next and to understand ideas as they encounter them.

Comprehension difficulties in reading found in the respondents can arise for a number of reasons, ranging from poor word-decoding abilities to the inability to use effective reading strategies, but the most challenging are those associated with national-specific and cultural peculiarities. Discourses play a significant role in articulating, preserving knowledge, and enforcing relations in science. Dentistry discourse in the broadest sense as a communicative process typically refers prevention, diagnosis and treatment of various oral diseases and conditions, it is focusing not only on functionality, but on aesthetics, dental management and marketing. Dentistry discourse is far from being a homogenous one-level communication conglomerate of events, practices, situations. All this requires and develops relevant language ideologies and dental professionals

generally agree on their own linguistic conventions, but the findings of our interviewing have shown they may experience some obstacles in respect of some linguistic peculiarities, cultural differences, register of English (American) dental discourse, as they are strongly oriented toward the American journals as the USA is recognised as the leader in this field [8]. Predominantly based on institutional discourses of medicine and biology, it evolves by cooperating with other sciences and practices and incorporating certain features of their discourses (engineering, computer technologies, statistics, economics, esthetics, law) that makes it more sophisticated and sometimes more difficult for clear understanding and translating. This implies the mixing configuration of discourse conventions by implicating cognitive, linguistic, pragmatic layers.

Dentistry professional discourse is underpinned by the field terminology, a well-ordered system of expert and practical knowledge, which is challenging part, but according to the findings of our survey, is quite understandable by the non-English speaking specialists. The rapid progress and the development of technology required not only the naming of new concepts but also the agreement on the terms to be employed [1; 5; 9]. As a result, certain words or phrases cannot be easily understand or translated, since equivalents (or the concepts them-selves) do not exist in native language. Moreover, vast differences in culture and everyday practices result in differences in language use, and pose considerable challenges in providing meaningful translations. The understanding and translation process therefore involve identifying words or phrases that do not translate well and determining which equivalent best relays the intended meaning. Idiomatic phrases are especially problematic, as they often differ drastically between cultures. The challenge is multifaceted, because reading highly specialized research articles, clinical trial documents, trade publication articles or attempts to translate them into a target language requires a high level of precision and accuracy compared to other types of documents. Language equivalents must be carefully chosen, and any cultural factors must be taken into account. Documents must be back translated in order to ensure that the original

meaning has not been misconstrued, and translators must determine the closest language equivalents in cases where exact translations do not exist. This requires not only high proficiency in both the source and target languages, but also demands an understanding of the culture, a background in the field of clinical research, and familiarity with local regulatory procedures.

Compared with medical discourse, dentistry, it is beyond the focus of the thorough sociolinguistics studies. For example, as the public becomes more attuned to the aesthetic possibilities available for self-improvement through smile enhancement, dentistry is seeing a significant increase in patients wanting the so-called "Hollywood" smile, popularized by American cinema and television and become recognized worldwide. Lay persons can define Hollywood smile in simple words, as it is a combination of the perfect form, position, proportion, size, alignment, and colour of the teeth. Our previous report has shown this word combination is encoding not only social and cultural notions, but certain specialized knowledge nodes, which can be regarded as access points to more complex knowledge structures [6]. The question is whether there is need to search native equivalents for such terms introducing them in native language academic discourse.

Thus, the awareness of structure, process, and general culture within the framework of scientific texts make the inclusion of respondents in sociocognitive practices more qualified. Hence, to be able to accurately understand written texts is not simply to understand the words or terms of the specialized text but also to be aware of the background and wisdom that accompany them. Interpreting or translating is not limited to reproducing the intended specialized text meaning but includes active forms of involvement in the social and interactional context [9]. Therefore, the importance of experience and direct inclusion within the context seems to be more supportive than language knowledge that has already been emphasized in the related literature regarding this subject [7; 9; 10; 11].

Academic writing requires more conscious effort and much practice in composing, developing, and analyzing ideas. It is apparent that Ukrainian dentists brought with them a style of writing in academia that somewhat contrasts with conventions of English academic writing as emphasized in Anglo-American universities. For example, rather than featuring direct entry into a topic and structuring text around a well formulated thesis statement, they frequently began with a wide-sweeping introduction, proceeded with gradual entry into the main topic and developed their topic without clearly recognizable organization. It is apparent that these speakers of English share a manner of writing that is entirely natural for them. Our observations demonstrate that texts produced by the dentists involved in the study basically represent established norms and conventions of writing in their respective culture.

Errors in verb forms, i.e. errors in tense, aspect, mood, and subject-verb agreement, represent a group of grammatical errors are below the average, but significant enough to be considered for feedback activities. The respondents also demonstrated misuse of prepositions, articles, inappropriate technical words and jargon. Relatively flexible word order in Ukrainian language significantly interferes with sentence building in English. Slavic languages in general have been found to be less linear than English in structure and more inclined to digression with delayed disclosure of the writer's purpose. The Ukrainian writers tend to write too long complex sentences and clauses as they used to do in their mother tongue. They break up texts into larger number of paragraphs disregarding that in academic writing the paragraph is the building block or package that conveys one unit of thought on the overall topic.

While language and communication systems are part of culture, to become a professional, scientists are to adopt the culture of science and profession. Although this perspective does identify some commitments associated with consensual scientific practices, it would be a serious error to make the inference that scientists shed their own cultures when they enter through the doors of science [2; 11]. Dentistry discourse involves both

international and national-specific professional values, corporate interests that promote institutional identity. This culture is passed on to the neophytes in the profession, but it remains obscure to other professions.

Scholars have drawn attention to significant differences between culturally-specific academic discourses, and the "cultural gaps" that need to be bridged when doing intercultural and multilingual research. By and large, culture is defined as the social heritage of a community, a specific set of social, educational, religious, and professional behaviors, practices, or values that individuals learn and adhere to daily, including communication styles, customs, dress, cultural beliefs, and societal rules [7]. Cultural knowledge is rooted in learning about the world views of diverse groups, which includes understanding how to define culture and describe cultural beliefs, values, and behaviors of different populations. L. Purnell and B. Paulanka [10] have added to Leininger's basic definition [7] that culture is largely unconscious; both implicit and explicit; and dynamic, changing with global phenomena.

Incorporating the profession's value system into the individual professional's world-view is a subtle process and unfolds largely unspoken. Not surprisingly, "the need to understand other cultures and languages" was identified by Daniel Yankelovich [14] as one of five imperative needs to which higher education must respond in the next ten years if it is to remain relevant for Ukrainian graduate and post-graduate education.

Cultural competence is far from being uniformly defined. In addition, of particular importance is that cultural competence is a process and not an end statement, so no one can fully achieve cultural competence [11]. In general, cultural competency is the ability to effectively communicate with people of diverse backgrounds [7; 10; 11]. In health care, cultural competency also relates to the dentists ability to acknowledge cultural influences on colleagues' and patients' health-related beliefs and behaviors, and to understand how these influences affect the co-operation. Cultural knowledge also includes engaging in collaborative discussions with patients about their cultural influences [7; 10; 11].

The process of cultural competence includes five components: cultural awareness, cultural knowledge, cultural skill, cultural encounters, and cultural desire. Cultural awareness is based on understanding the own cultural background and becoming aware of others' values, beliefs, and practices. Through this process, personal biases, prejudices, and assumptions about patients of diverse backgrounds may be identified and addressed.

Co-operation between dentists and representatives of other professions, known as inter-professional discourse, reflects the intersection of multiple scientific and social practices regarding the improvement of oral health care, oral education. This dimension of dentistry discourse may involve communication between dental professionals and representatives of engineering, chemistry or IT domains, between dental professionals and representative of economic or law institutions. Understanding these facets of dentistry discourse is the weakest point for the dental professionals subjected to the interview and only few reports throw light on this issue. Thus, operating in multilingual contexts involves moments of friction and hesitation, and it is this particular moment where our thinking is challenged by new ideas and thoughts – be it while speaking with an interpreter, while reflecting on our positionality or while striving to transfer meaning from one culture into another – that moves things forward in constructive ways. Intercultural research in multilingual settings is thus about critical reflexiveness, a point which it is worth extending to human geography in general. Cognitive learning theory suggests that each profession may attract a predominance of individuals with a particular set of cognitive learning skills and styles [2] that can not be drastically different in professional communities different ethnically.

**Conclusions.** Thus, the lack of proficiency in English could be a major concern for Ukrainian dentists. Additionally, language and sociocultural barriers make a lot of them over stressed. Conversely, poor communication can result in dissatisfaction, termination of the relationship, malpractice, etc. Language barriers can minimize the degree of motivation, which may result to diminished

ability of learning. Adapting the formal instructional tools would lead to more authentic learning, boost confidence of Ukrainian professionals and would lead to more successful co-operation in international team.

There are ways on how to manage language and cultural barriers. Increasing English courses can lessen the barriers to communication and sustain production of competitive professionals who can easily communicate and comprehend especially for those in the health professional fields.

When dental students arrive newly in the University, their language proficiency needs to be assessed to identify and establish their needs towards language training to plan the instructional supports accordingly. Many developmental models exist that promote or encourage intercultural competence. Health care and research activity that stresses teamwork and culturally sensitive care is working toward developing these necessary tools. Conceptual models of cultural competence have been developed that can be used by all health disciplines in order to function in an increasingly multicultural society. It would be pedagogically useful to include tasks to raise their awareness of English-Ukrainian cross-cultural variation in academic writing. To support this, more cross-cultural research into academic discourses in English and Ukrainian using rigorous comparative designs is still necessary. A realistic environment produced through high-fidelity simulation enhances the opportunities for the optimal learning process.

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