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# THE DEVELOPMENT OF THE CREATIVE CAPABILITIES OF FUTURE DOCTORS AND PHARMACISTS IN THE PROCESS OF FORMATION OF THE IT COMPETENCE

#### Summary

In the article, attention has been focused on the concept «creative capabilities». We have described the tasks of four levels, and also investigated their significance for the development of creative capabilities of future doctors and pharmacists in the process of formation of information technology competence (the IT competence) during teaching the disciplines of naturally scientific preparation. The role of problematic tasks in the process of development of creative capabilities of the future specialists at which the IT competence is formed during teaching the disciplines of naturally scientific preparation has been found. We have developed the method of evaluation of levels of creative capabilities of the future specialists on condition of acquisition of the IT competence by them during teaching the disciplines of naturally scientific preparation, which provides the questionnaire survey of subjects of educational process on the formulated questions and the implementation of algorithm of evaluation of its results with the use of the appropriate statistical methods. We have conducted the questionnaire survey of research subjects within the limits of the developed model and also estimated its results by the provided algorithm. We have proved, that the process of formation of the IT competence during teaching the disciplines of naturally scientific preparation with the use of the developed manuals is determining for development of creative capabilities of future doctors and pharmacists, which allow them to solve the tasks and problems creatively not only in future professional activity but also in other tangent areas.

**Keywords:** questionnaire survey, task, IT competence, method, manuals, level, creative capabilities.

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## BILINGUAL TEACHING: A THEORETICAL FRAMEWORK

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The article outlines a theoretical framework for conceptualizing issues within the emerging field of bilingual teaching. Among current concerns are the bilingual language acquisition, language awareness and communicative competence in bilingual education. There have been defined the distinctiveness and problems of the designing and implementing bilingual programmes and curriculum resources development. The peculiarities that contain the formulation of specific principles of bilingual teaching have been considered. This article summarises theoretical and methodological data of the hypotheses about bilingual teaching. Approaches to the pedagogical content knowledge of bilingual lecturers at higher educational institutions have been determined.

 $\textbf{Keywords:} \ \ \textbf{bilingual education, bilingual teaching, language acquisition, theoretical framework, content knowledge, bilingualism.}$ 

The problem setting. With the increasing of economic globalization, the communication among various nations is persistently expanded and the development tendency of educational internationalization has been arising. The practical use of innovative technology and the improvement of long-distance education convey intensive challenge to the higher education of Ukraine, and that fundamentally has been developing the research about education policy and teaching methodology. To adjust social demand for the students' aptitude at higher educational institutions, the teaching quality of the undergraduate training should be constantly enhanced.

Furthermore, being proficient solely in one language is not acceptable for economic growth, social affluence, and educational success. To achieve academic performance and contribute to trade and industry improvement it is required to possess a

wide range of skills, including the ability to speak more than one foreign language. In addition, language acquisition is crucial to the cognitive development of a person. It is undeniable that well-balanced bilingual students may attain academic accomplishment faster than monolingual learners.

Thus, the development of bilingual teaching might help students to steadily comprehend the communication between specialised knowledge obtaining and technology trends in English, increase their application capability of foreign language, and enhance their international awareness and global competitive proficiency.

It should be clear, however, that bilingual teaching is a broad term which is used to denote the presence of two languages in instructional settings, depending upon various variables, comprising the native language, the language of tuition, and the linguistic objective of the pro-

gramme to define which type of bilingual education should be applied.

The Analysis of Recent Studies and Publications. A number of studies similar to the present research have been undertaken in the past [3; 7; 8; 12] but they were focused primarily on types of bilingual education, theories acquainted with cognitive functioning and bilingualism. By comparison, this present study focuses on the various pedagogical theories and methodologies for practical usage. Overall, it is expected that the findings of this study will contribute to the improvement of the bilingual education programmes at higher educational institutions.

The problem of bilingual teaching is solved differently in various countries. Cultural and academic program issues in bilingual education have become subjects of study of a number of studies having revealed that bilingual education is effective with students in well-designed programmes acquiring academic English [2; 11; 13]. Historical and cultural aspects of bilingual education have been studied by H. Baumgartner, L. Vygotskii, G. Burger, M. Valentik, J. Walter G. Haas, K. Lantz. Some researchers (C. Baker, C. Benson, J. Cummins, N. Dutcher, and V. Youssef) have provided evidence that bilingual schooling can improve basic education in developing countries, with a demonstration of the pedagogical advantages of bilingual education.

Numerous research studies that point to the problems of bilingualism and challenges of studying bilingualism in linguistics have been conducted by A. Diebold, J. Edwards, S. Lieberson, W. Mackey, F. Fabbro. The key fundamental theoretical and empirical questions involving bilingual teaching have been formulated by E. Haugen, U. Weinreich, and M. Blanc. An excellent foundation to topics such as bilingual education, second-language teaching, and language policies has been provided by C. Myers-Scotton and C. Hoffmann. Advantages of bilingual education at the social level have been discussed by T. Baker and S. Romaine.

The objective of this paper is to outline a theoretical framework for conceptualizing issues within the emerging field of bilingual teaching and methodological approaches to the content of bilingual teaching at higher educational institutions.

The results of the study. It is indisputable that bilingualism being associated with second language acquisition extends the capabilities of the individual to contribute to the values of other cultures. Since language and culture have been closely entwined, then a tongue being a part and form of expression of a culture actualizes the problem of understanding at the level of global education. In the information society whose members in their professional activity should contact a large number of other people, communication is to be adequate, clear and accurate. Thus, standard common language would be a universal means of such communication for all in the world, overcoming interaction challenges.

Research completed by Dr. Jim Cummins, the professor of the Ontario Institute for Studies in Education at the University of Toronto, supports a central principle of bilingual education: children's first language skills must become well developed to en-

sure that their academic and linguistic performance in the second language is maximized [5, p. 67].

Cummins's Developmental Interdependence Theory suggests that growth in a second language is dependent upon a well-developed first language, and his Thresholds Theory proposes that a child must attain a certain level of proficiency in both the native and second language in order for the beneficial aspects of bilingualism to accrue. Also, Dr. Cummins presented the concept of the Common Underlying Proficiency Model of bilingualism, which clarifies how notions learnt in one language can be transferred to another. Jim Cummins is acknowledged for his distinction between Basic Interpersonal Communication Skills (BICS) and Cognitive Academic Language Proficiency (CALP) [5, p. 89–93].

A linguist Stephen Krashen developed an overall theory of second language acquisition known as the Monitor Model. The distinction between acquisition and learning-acquisition is the core principle of this theory having been a subconscious process taking place in authentic communicative circumstances and learning having been the conscious procedure of knowing about a language. In addition, the Monitor Model comprises the natural order hypothesis, the Input Hypothesis, the Monitor Hypothesis, and the Affective Filter Hypothesis. Together, these five hypotheses provide a vivid structure for understanding of how to best create and implement educational programs for language-minority students. Stephen Krashen has put his theory into practice with the establishment of the Natural Approach and the Gradual Exit Model, which are founded on the second principle of bilingual education - the concept of comprehensible input [9]. Thus, language teaching should be accomplished so that a language can be acquired without difficulty, and this process is completed by applying delivery methods and levels of language that can be easily mastered by the students.

Colin Baker, being commonly approved as one of the most incisive prominent international researchers in the field of bilingualism and bilingual education, defines the connection between bilingualism and intelligence and bond between bilingualism and thinking. Moreover, C. Baker has tried to clarify the relation between language and society distinguishing those factors that are expected to revive a dying language: economic, social, symbolic, demographic, institutional support and religion [1].

Dr. Baker in his book Foundations of Bilingual Education and Bilingualism has discussed individual and societal concepts in minority and majority languages; childhood developmental perspectives; general bilingual education issues, bilingual and second language classrooms, and political and multicultural perspectives. He suggests the two routes to bilingualism: simultaneous, occurring up to the age of three when two languages are acquired consecutively and sequential, taking place through formal education of informal paths. Having concluded his opinions of assimilation versus bilingualism C. Baker announced the following statements based on his individual interests and political ideas: «Some see language as a problem while others see it as a resource. The first group sees in the classroom the place where language

and cultural differences will be dissolved. For the others, the school is a place where to celebrate diversity» [1, p. 56–60].

In our opinion, bilingual teaching can be considered as a focused educational process of individual socialization that occurs in terms of natural or artificial bilingualism being provided in the mastery of the world cultural values by means of native and foreign languages comprising bilingual education and multicultural upbringing. Consequently, bilingual teaching can be defined as lecturers and students' joint activity in the study of certain academic disciplines in their native and foreign languages, providing a high level of competence in a foreign language and content knowledge mastery. It is clear, then, that a foreign language should be acquired through content learning just as content may be studied through a language.

Clearly, the peculiarity of bilingual education is the existence of two languages as a means of teaching. Thus, each of them is studied not only as a subject that is not limited to the study of a language as a system. The following parameters for the developing curriculum for bilingual education students should be taken into consideration: language situation in the family, characteristics of the curriculum, personal living space, function and status of the language. Furthermore, short- and long-range goals and specific objectives should be converted to lesson plans and tasks, taking into account linguistic and cultural background.

So, the main idea of the bilingual education is that a foreign language along with a native language can be used as a means of teaching and learning strategies in the process of professional training of future specialists. Moreover, content knowledge can be developed at the same time as students improve their language skills. In bilingual education the problem of fragmentation of thinking and speaking a foreign language is being removed, as there is non-linguistic object of knowledge - professional knowledge and professional techniques. Cognitive activity is carried out in the unity of language activity and mastery of the subject matter occurs simultaneously with the mastery of the means of expression in native and foreign languages.

The results of the study have shown that theoretical and methodological foundations of the key concepts in bilingual education are: personality oriented paradigm of modern education; a pragmatist approach, as a major psychological concept of learning; cognitive and communicative and competency-based approaches; concept of humanization and humanitarization of education; hypothetical model of Interlanguage theory of foreign language learning; a model of learning activity design; the concept of intercultural dialogue [10, p. 45-47]. Consequently, the strategic objective for bilingual education is the formation of future professionals in the bilingual subject matter competence which is a set of general, special and interdisciplinary professional knowledge and skills that ensure successful career readiness for professional activity implementation in native and foreign languages in terms of intercultural communication.

Didactic and methodological approaches to the content for bilingual teaching at higher educational

institutions comprise: event-related being focused on the subject matter meaningful in the situation contextually relative; comparative being provided a comparative analysis of the events, phenomena and facts of life around the world; integrated being combined peculiarities of both approaches mentioned above and being involved the examination of specific situations in comparative analytical perspective.

Models of bilingual education, reflecting the ratio of native to foreign language perform the following functions: duplicate being involved the presentation of the same semantic content of lexical units in both native and target languages; additive which is to provide additional information in a foreign language being promoted diversity that is crucial to acknowledge peoples' differences; parity being provided equal use of native and foreign languages in the disclosure of subject matter; dominant due to which with the advent of multicultural societies a foreign language plays a significant role in bilingual education programs [6, p. 15–20].

As such, it may be more feasible to teach predominantly through manipulative, practical or visual experiences, using collaborative activities that make the lesson and a foreign language comprehensible to students. For example, rather than teach the vocabulary in isolation from the content in order to describe what various items are made of it will be valuable to demonstrate the meanings of the terms. Also, lecturers should make their speech more comprehensible talking more slowly, giving emphasis to significant information and key phrases. Furthermore, the teachers may simplify their speech, using less complex grammar and more common vocabulary, providing exemplification, additional meanings and paraphrasing.

However, it is undeniable that lecturers face the challenge of enabling students to learn content and develop the linguistic and academic competence of learners who are studying through a foreign language. Obviously, visuals, facial expression and gestures are able to contribute to content and language learning. In addition, the content mastery and skills development need to be constantly supervised and understanding of the core concepts and terms properly verified.

The conclusions and perspectives of further research. The results of the study reveal that, there are about ten various bilingual education programmes. Provided that mastering the language is carried out by the input information and subconscious language acquisition predominates over consciously studying the language, input information should be the base of a course. Consequently, students focus on content knowledge rather than on the grammatical structure of sentences while perceiving information and making decisions about learning materials. Teaching process should be accomplished creating a positive learning environment in the classroom allowing the students to feel themselves comfortable, safe and engaged. Thus, bilingual teaching develops both English proficiency and academic competence by instruction in the primary language as well as English.

This article has attempted to summarise theoretical and methodological aspects of bilingual teaching analysing the problems of bilingualism and ways to increase lecturers' efficiency through the effective planning, adjusting classroom activities while assisting their students in developing content knowledge at the same time as improving language skills. To ensure a complete problem solution, it needs to be assured that constraints in

the implementation of the bilingual programmes will be overcome. Among the perspectives of further study we suggest search of methods of the analysis of foreign language immersion and the linguistic and academic competence development to be considered.

# **References:**

- 1. Baker C. Foundations of bilingual education and bilingualism / Colin Baker. Clevedon: Multilingual Matters LTD, 2006. - 497 p. (in English).
- Ball J. Enhancing learning of children from diverse language backgrounds: Mother tongue-based bilingual or multilingual education in the early years / Jessica Ball. – United Nations Educational, Scientific and Cultural Organization. - UNESCO, 2011. - 87 p. [online]. - Available from: http://unesdoc. unesco.org/ima gs/0021/002 122/212270e.pdf (in English).
- 3. Bialystok E. Bilingualism in Development: Language, literacy and cognition / Ellen Bialystok. New York: Cambridge University Press, 2001. - 26 p. - Available from: http://assets.cambridge.Org/97805216/32317/ sample/97805216323 17ws.pdf (in English).
- Blanco M. G. Competencies needed by Bilingual Education Teachers / George M. Blanco // Association for Supervision and Curriculum Development [online]. - Available from: http://www.ascd.org/ASCD/pdf/journals/
- ed\_lead/el\_ 197711\_blanco.pdf (in English). Cummins J. Language, Power, and Pedagogy: Bilingual Children in the Crossfire / Jim Cummins. Clevedon, Eng., and Buffalo, NY: Multilingual Matters, 2000. - 309 p. (in English).
- 6. Descy P. The value of learning: evaluation and impact of education and training: third report on vocational training research in Europe: synthesis report / P. Descy, M. Tessaring. – Luxembourg: Office for official publications of the European Communities, 2005. – 61 p. (in English).
- Diaz R. M. Thought and Two Languages: The Impact of Bilingualism on Cognitive Development / Rafael M. Diaz // Review of Research in Education. Vol. (10). 1983. Pp. 23–54. Available from: http://rre.sagepub.com/ content/10/1/2 3.extract (in English).
- Digital divide // Towards the European higher education area. Bologna process: National reports 2004-2005. -
- Bern, 2005. Available from: 12p.www. bolognareform.ch. (in English).

  Krashen Stephen D. Condemned Without a Trial: Bogus Arguments Against Bilingual Education / Stephen D. Krashen. - Portsmouth, NH: Heinemann, 1999. - 110 p. (in English).
- 10. Porter R. P. The Politics of Bilingual Education / Rosalie Pedalino Porter. New York: Basic Books, 1990. -178 p. (in English).
- 11. Richard-Amato P. A. Making it happen: From interactive to participatory language teaching. Theory and practice / Patricia A. Richard-Amato. - NY: Longman, 2003 [online]. - Available from: http://www.joanwink. com/newsletter /2009/Richard-Amato\_catalog-0709.pdf (in English).
- 12. Richards J. C., Hurley D. Language and content: Approaches to curriculum alignment. The Language Matrix / J. C. Richards, D. Hurley // Cambridge University Press. - Cambridge, 1990. - Pp. 144-159. [online]. - Available from: http://www. professorjackrichards.com/wp-content/uploads/Curriculum-Approaches-in-Language Teaching.pdf (in English).
- 13. Rossell C. H., Baker K. The educational effectiveness of bilingual education / Christine H. Rossell, Keith Baker // Research in the Teaching of English. - Vol. 30. - 1996. - Pp. 7-74. - Available from: http://www.bu.edu/ polisci/files/ people/faculty/rossell/papers/effectiveness.pdf (in English).

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# теоретичні засади двомовного навчання

## Анотація

У статті розглянуто теоретико-методологічні основи концепції двомовного навчання. Схарактеризовано стан розроблення проблеми білінгвізму. Виділено особливості і проблеми конструювання білінгвального навчального плану. Досліджено особливості, що вимагають формулювання специфічних принципів двомовного навчання. Окреслено форми та методи організації двомовного навчання у вищих навчальних закладах.

Ключові слова: білінгвальна освіта, двомовне навчання, засвоєння мови, теоретичні основи, обсяг знань, білінгвізм.

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## ТЕОРЕТИЧЕСКИЕ ОСНОВЫ ДВУЯЗЫЧНОГО ОБУЧЕНИЯ

## Аннотация

В статье рассмотрены теоретико-методологические основы концепции двуязычного обучения. Охарактеризовано состояние разработки проблемы билингвизма. Выделены особенности и проблемы конструирования билингвального учебного плана. Исследованы особенности, требующие формулировка специфических принципов двуязычного обучения. Определены формы и методы организации двуязычного обучения в высших учебных заведениях.

**Ключевые слова:** билингвальное образование, двуязычное обучение, усвоение языка, теоретические основы, объем знаний, билингвизм.

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# ВИКОРИСТАННЯ ПОТЕНЦІАЛУ ІНКЛЮЗИВНОГО ЛІДЕРСТВА В ШКІЛЬНІЙ ОСВІТІ КОРІННИХ НАРОДІВ КАНАДИ

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У статті висвітлюється проблема використання потенціалу інклюзивного лідерства в шкільній освіті корінних народів Канади. Виконано аналіз науково-педагогічної літератури, яка трактує окремі аспекти предмету дослідження. Розглянуто досвід організації партнерств між школою та батьками, лідерами громад корінних народів. Обґрунтовано використання традиційної педагогіки корінних народів Канади та сучасних педагогічних технологій задля підвищення рівня успішності учнів — представників корінного походження. Представлено висновки дослідження та перспективи подальших розвідок з проблеми дослідження. Ключові слова: Канада, корінні народи, шкільна освіта, інклюзивне лідерство, традиційна педагогіка корінних народів.

Постановка проблеми. Основною метою освіти є розвиток та соціалізація дітей та молоді. Первинна соціалізація відбувається у родинному оточенні, коли батьки виховують своїх дітей в колі сім'ї. Вторинна соціалізація особистості, як правило, відбувається за допомогою формальних інституцій як соціальних утворень. У суспільствах, де існують школи, учнів навчають цінностей, знань, умінь та навичок, необхідних для ефективного функціонування у суспільстві, а сукупність необхідної для засвоєння інформації втілюється у навчальних програмах.

Сучасна система освіти Канади розвивається у полікультурному середовищі. Підтримання національних елементів освіти та розвиток культури і традицій різних народів світу є широко розповсюдженою практикою у полікультурному канадському суспільстві. Представники кожної етнічної групи, дотримуючись культурних особливостей канадського суспільства, в той же час зберігають та передають з покоління в покоління власну національну культуру, традиції, цінності та світогляд. У школах системи загальної шкільної освіти знайомлять дітей із особливостями мови, культури, традицій різних народів світу. Змістове наповнення навчальних програм, методика викладання матеріалу набувають особливого значення для соціалізації особистості та формування її світогляду, оскільки збереження та передача культурних цінностей значно залежить від того, чого навчають у школах.

Аналіз останніх досліджень і публікацій. Освіта Канади, її різновиди (формальна, неформальна), історія її розвитку, різні її рівні (навчання та розвиток у період раннього дитинства; система початкової та середньої загальноосвітньої школи; подальша освіта; навчання дорослих та розвиток умінь і навичок) досліджуються вітчизняними та зарубіжними науковцями: Т. Кучай, Дж. Едвардз (J. Edwards), Н. Френсіс (N. Francis), Дж. Рейне (J. Revhner) (шкільна освіта Канади): О. Барабаш. Н. Мукан, М. Лещенко (неперервна освіта); О. Огієнко, К. Воядже (C. Voyageur), Б. Келліу (B. Calliou) (полікультурна освіта Канади); Ю. Шийка, С. Шепсон (S. Shapson), В. О'Дойлі (V. O'Doyley), К. Хілтенстем (К. Hyltenstam), Л. Олбер (L. Olber) (білінгвальна освіта) тощо.

Освіту корінного населення Канади вивчали С. Андерсен (С. Andersen, A. Johns), Дж. Куммінс (J. Cummins), Й. Хеберт (Ү. Hebert), Д. МкКаскілл (D. McCaskill), Х. Рехем (Н. Raham), Дж. Фрісен (J. Friesen), В. Фрісен (V. Friesen), Дж. Ламбе (J. Lambe), проте, використання потенціалу інклюзивного лідерства в шкільній освіті корінних народів Канади ще не була предметом наукового дослідження вітчизняних науковців.

**Мета статті.** Метою статті є дослідження використання потенціалу інклюзивного лідерства в