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The goals of professional oriented language education in modern technical institute

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Abstract

The article deals with the issue of goals and aims of language education in modern technical institute. The challenges of outer and inner institute environment that influence professional portrait of a specialist in science, technology and engineering, are discussed. The role of foreign languages is the object of analysis: they are an integral part of professional activity of a specialist today; knowledge of foreign languages allows conducting research and building education process on a new higher level of international cooperation. The new function of language education is discussed: the forming of institute language environment on the principles of professionally oriented interdisciplinary approach to language education. The article describes main methods of language education used in Noyabrsk Institute of Oil and Gas. The author comes to the conclusion that the main objective of implementing a system of language training at a technical college is to contribute to the strategic objectives of a technical college in particular – entering into the world educational space. The solution of a global problem is possible only with help of highly qualified personnel: students and teachers having the appropriate

level of professional competence, including the area of foreign languages helping in the global information flow, as well as to promote their own research on the international level.

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Keywords

Professionally oriented language education, language environment of technical institute, foreign language competence in the sphere of professional communication, international cooperation, professional skills of an engineer.

Introduction

One of the main objectives of higher education is training of highly qualified specialists with well-developed labour awareness and flexible thinking [Aberšek, 2010, 99]. Nowadays the professional portrait of a modern specialist in the field of science, engineering, and technology includes the ability to cooperate in research and production environment at the level of international contacts. International activities as an important factor in the development of a modern technical higher education institution imply the organization of research and educational activities in the international space, which requires fluency in one or more foreign languages (FL) [Spence, 2013, 97].

The objective of a modern technical higher education institution consists not only in involvement of foreign specialists in conducting research, teaching, and sharing experience, but in the first place in reaching the key positions in the world of science and education [Bulajeva, 2014, 318; Wilkins, Urbanovič, 2014]. The level of international cooperation of a technical higher education institution has changed and at the present stage includes the complex of the most difficult problems that are directly related to foreign language skills, intercultural communication skills, the ability to work as part of a team, personal and professional traits which determine

the level of research and teaching activities that can be actualized in case of the high level of the development of the foreign language communicative competence in the professional field of communication [Masalimova, Gubaidullina, 2014].

Experience and principles of professionally oriented foreign language communicative competence of students and teachers

Noyabrsk Institute of Oil and Gas (branch) of the State-Funded Educational Institution of Higher Professional Education "Tyumen State Oil and Gas University" was founded on the basis of an oil and gas college. The institute is located in the Extreme Northern region of Russia, the Yamalo-Nenets Autonomous District, the Tyumen region. The region occupies one of leading positions in Russia in terms of reserves of hydrocarbons, especially natural gas and oil. The work of the teaching staff is based on the gained extensive experience of training specialists and takes into account new opportunities connected with changes in the educational and sociocultural context of learning a foreign language on the whole: an increased interest in foreign languages, in particular the Chinese language in connection with the signing of the contract for delivery of gas to China for 30 years. Noyabrsk Institute of Oil and Gas has been successfully fulfilling one of the most important objectives of modern professional training of specialists in the field of science, engineering, and technology since 1997. This objective consists in ensuring high-quality language education (LE) through comprehensive language training focused on solving the problems of the inner environment of a technical higher education institution (dominance of a monolingual community, the average starting level of juniors in relation to the development of the communicative foreign language competence), as well as meeting the challenges of the modern social and economic development of the society in the context of globalization [Tsytovich, 2014].

The comprehensive development of the personality of an engineer-to-be, extension of the range of competences in his professional portrait that are demanded by the society and economy are only possible in case of compliance with the following principles of organization of professional and language training at a technical higher education institution:

− combination of knowledge of the humanities and technical one with a view to ensuring the balanced development of the personality of a specialist with the help of introduction of integrated study programs, various events held in the referential system of a foreign language;

− the formation of the multicultural personality of a student as an independent thinker, the manager of his/her own learning process, who is capable of creativity and innovative activities [Boev, 2007; Sinel'nikov, 2007].

Training of specialists should include development of such a level of the communicative and sociocultural competence that would allow them to successfully cope with their professional responsibilities. The structure of the professionally oriented foreign language communicative competence includes all basic components of the communicative competence: cultural, language and speech, strategic, compensatory, and sociocultural competences [Kavnatskaya, 2003]. However, in terms of the content each component will be developed due to the inclusion of professionally oriented knowledge, skills, and individual abilities on the basis of the competence in the field of professional activity.

The professionally oriented component of the language competence can be defined as a system of language knowledge, skills, and capabilities that allow a specialist to generate linguistically correct and terminologically rich speech and the complex of linguodidactic knowledge and skills that allow of adequate presentation and description of linguistic phenomena for educational purposes.

The professionally oriented component of the speech competence can be defined as a system of speech knowledge, bicultural skills, and individual abilities related to speech creation that allow a speaking/writing person to orientate oneself in the functional factors of communication with regard to generation of communicatively acceptable speech works (texts).

The professional perspective in the intercultural strategic competence helps to create favorable conditions for professional activity in teams. The intercultural strategic competence implies the ability of a speaking/writing person to vary communicative strategies under the conditions of foreign language intercultural communication. The inclusion of the intercultural strategic competence gives an opportunity to strengthen, coordinate, and balance all other competencies.

The main directions in the development of language training at a modern technical higher education institution, therefore, include the following components as targets:

− *Language one*: teaching several language systems as well as ways of interaction in them, including strategies of communication; knowledge of the sociocultural specifics of one's own and other cultures reflected in the linguistic worldview; ensuring continuous interaction in different communicative situations; taking into account the specifics of scientific, professional, business, and academic spheres of communication during foreign language teaching; the formation of artificial bilingualism at a Russian higher education institution: concurrent teaching standards of communication in the native language and a foreign one; compliance with the key principle of language education for students of technical specialities: a foreign language is no longer an end in itself, it becomes an instrument used for doing other activities (academic and professional).

− *Organizational one:* inclusion, in addition to classroom training, of various forms of extracurricular activities and events in the plan of implementation of language training of students of a technical higher education institution (seminars, educational projects designed according to the principle of linguistic immersion); ensuring interaction and regular contact with native speakers – scientists, students, teachers; an integrated approach to language training at a technical higher education institution at all levels (the system of language training for students and the system of language training for the staff should supplement each other).

The internal strategic aim of such complex organization of language training at a technical higher education institution is the formation of language environment that ensures effective interaction between all participants of the educational process at all levels.

In the future the language environment of a technical higher education institution will enable students and teachers to independently make decisions about the formation of a creative group of researchers with international participation, to summarize the research results in scientific publications in a FL and, as a consequence, to participate in international competitions and grants, and thus to gain recognition at the international level [Slesarenko, 2006].

On the whole, in order to achieve the abovementioned targets at the level of implementation of the objectives of language training, the staff and students of the institute should communicate orally and in writing using a FL (business correspondence, oral negotiations, and writing academic and business documents), participate in international activities (cooperate with foreign colleagues, use a FL in their teaching or learning and research activities).

These objectives are achieved with the help of the system of language training of the staff and students of Noyabrsk Institute of Oil and Gas that has the following two directions at the level of the structure and content of the program at the present stage of the development:

− a FL as a means of formation of the professionally oriented foreign language communicative competence of students;

− a FL as an instrument used for formation of the professionally oriented foreign language communicative competence of teachers [Artemova, Maiskaya, 2013, 52].

With respect to the first direction of language training at the institute it should be noted that the basic principles of the its implementation are the following ones: the principle of mediation of FL activities: a language in the learning process is not an end in itself but a tool used for doing other activities (group work, team work), a means of verbalization of the decision that has been made, building hypotheses, participating in discussions, presentation of the product of the research; the principle of intensification of the learning process: the form and content of most classes imply the format of linguistic and multicultural immersion.

The objectives related to the formation of skills that are necessary for any professional activity are connected with the so-called *transferable skills* of the organization of activities [Vaisburd, 2003; Fallows, Steven, 2000]. This group of skills is developed and maintained with the help of projects, problem-oriented tasks, simulation tasks, and case studies carried out in the referential system of a FL. The main principle of organization of such activities is the development of learners' critical thinking skills, the ability to make creative out-of-the-box decisions related to planning activities, the formation of the engineering and/or research problem solving skills. Tasks created according to this principle allow of successful development of interdisciplinary relations.

Another group of personal skills, the development of which is also expected during the implementation of language training at a technical higher education institution, includes the so-called *compensatory skills* of activities and interaction [Vaisburd, 2003; Fallows, Steven, 2000]. This group of skills helps to deal with projects, research activities and is responsible for the formation of research methodology, as well as the information competence of students. The following skills should be considered to be essential for students: selection of the optimum way of searching for information, ranging of the obtained information, searching for or prognostication of missing elements of a problem situation or task, the strategic format of the process of exploring a problem, phased prognostication of the result to be achieved, its correlation with the ultimate goal of activity, the adjustment of activities depending on changing conditions of their implementation.

The group of professional adaptation skills of an engineer, which is defined in the foreign literature as *soft skills*, should be mentioned [Fallows, Steven, 2000]. This group of skills is connected with the specifics of training of students of a technical higher education institution depending on specialities or areas of study. Soft skills allow them to organize and carry out laboratory works, work with equipment, plan, organize, and perform experimental research, interpret and summarize their results, and, if necessary, adapt the obtained data with a view to familiarizing the wide public with them, write scientific texts for professionals in this or related areas of knowledge. The soft skills during foreign language classes give an opportunity to work with specific, professionally oriented texts, to carry out interdisciplinary projects in the referential system of a FL.

It should be noted that the content and structure of language training at an institute consist not so much in its focus on language and speech skills as in its focus on the requirements for the professional competence of a specialist in the field of science, engineering, and technology.

Thus, at the initial stage of training at a technical higher education institution a FL allows students to fulfil their potential as a young researcher, engineer, to consider themselves to be specialists who are ready and eager for innovations, carry out basic research, popular scientific projects, and make presentations).

At the middle stage of training a FL performs an informational function, forms professional views in the professionally oriented subjects, and allows of using new

work formats that are in demand during classes in special subjects (preparation of the description of a production cycle, carrying out and describing an inventive project, drawing up documents related to professional activities, presentation products).

At the final stage of training a FL is involved in the professional and academic activities of students, master's students, postgraduate students as a means of self-realization, self-education, and further training during implementation of research projects in cooperation with foreign participants, publishing of research results abroad, etc.

Conclusion

The main objective of implementing the system of language training at a technical higher education institution is to contribute to the fulfilment of the strategic objectives of the development of a technical higher education institution, in particular joining the world educational space. This global problem can be solved only with the help of highly qualified specialists – students and teachers that have an appropriate level of the professional competence, including one in the sphere of a FL, which allows of free orientation in the global information flow, as well as promoting one's own developments that are in demand and research results at the international level.

References

1. Aberšek, B. (2010) Development of communication training paradigm for engineers. *Journal of Baltic Science Education*, 9 (2), pp. 99-108.
2. Artemova, I.V., Maiskaya, E.A. (2013) Povyshenie konkurentnosposobnosti vypusknikov tekhnicheskikh vuzov na osnove integrirovannoi sistemy podgotovki po inostrannym yazykam [Enhancing the competitiveness of graduates of technical colleges on the basis of an integrated training system in foreign languages]. *Sovet rektorov* [*Council of Rectors*], 12, pp. 44-52.
3. Baryshnikov, N.V. (2008) Osobennosti mezhkul'turnoi kommunikatsii pri nesovershennom vladenii inostrannym yazykom [Features of intercultural com-

munication with an imperfect command of foreign languages]. In: *Obuchenie mezhkul'turnoi kommunikatsii v razlichnykh usloviyakh* [*Teaching intercultural communication in various conditions*]. Pyatigorsk, pp. 5-12.

4. Boev, O.V., Korosteleva, E.N., Chuchalin, A.I. (2007) *Proektirovanie magisterskikh programm na osnove planirovaniya kompetentsii spetsialistov* [*Improving of Master programs through planning competencies of specialists*]. Tomsk: TPU.
5. Bulajeva, T. (2014) Internationalisation of higher education and nation building: resolving language policy dilemmas in Lithuania. *Journal of Multilingual & Multicultural Development*, 35 (4), pp. 318-331.
6. Carloni, G. (2013) Content and Language Integrated Learning: A Blended Model in Higher Education. *International Journal of Technology, Knowledge & Society*, 9 (4), pp. 61-71.
7. Cots, J., Llurda, E., Garrett, P. (2014) Language policies and practices in the internationalisation of higher education on the European margins: an introduction. *Journal of Multilingual & Multicultural Development*, 35 (4), pp. 311-317.
8. Dlaska, A. (2013) The role of foreign language programmes in internationalising learning and teaching in higher education. *Teaching in Higher Education*, 18 (3), pp. 260-271.
9. Doiz, A., Lasagabaster, D., Sierra, J.M. (2014) Language friction and multilingual policies in higher education: the stakeholders' view. *Journal of Multilingual & Multicultural Development*, 35 (4), pp. 345-360.
10. Fallows, S., Steven, C. (2000) *Integrating key skills in higher education.* London.
11. Kavnatskaya, E.V., Safonova, V.V. (2003) K probleme opisaniya professional'no-orientirovannoi inoyazychnoi kompetentsii [Describing the problem of professionally oriented foreign language competence]. In: *Kul'turovedcheskie aspekty yazykovogo obrazovaniya* [*Cultural studies aspects of language education*]. Moscow, pp. 92-94.
12. Kuteeva, M. (2014) Disciplinary differences in the use of English in higher education: reflections on recent language policy developments. *Higher Education*, 67 (5), pp. 533-549.

13. Lappalainen, P. (2010) Integrated language education – a means of enhancing engineers' social competences. *European Journal of Engineering Education*, 35 (4), pp. 393-403.
14. Masalimova, A.R., Gubaidullina, G.T. (2014) Kooperatsiya vysshikh tekhnicheskikh shkol i predpriyatii v inoyazychnoi podgotovke budushchikh inzhenerov [The cooperation of the higher technical schools and businesses in foreign language training of future engineers]. *Uchenye zapiski Al'met'evskogo gosudarstvennogo neftyanogo institute* [*Scientific notes of Almetyevsk State Petroleum Institute*], 12(2), pp. 248-252.
15. Sinel'nikov, B. (2007) Innovatsionnye podkhody k organizatsii nauchno-obrazovatel'noi deyatel'nosti v tekhnicheskom vuze [Innovative approaches to the organization of scientific and educational activities in a technical college]. *Vysshee obrazovanie v Rossii* [*Higher education in Russia*], 12, pp. 13-19.
16. Slesarenko, I.V. (2006) Formirovanie polikul'turnoi sredy tekhnicheskogo vuza na primere inoyazychnoi podgotovki studentov elitnogo tekhnicheskogo obrazovaniya [Formation of a multicultural environment on the example of a technical college students of foreign language training elite technical education]. In: *Sbornik trudov Mezhdunarodnoi konferentsii GEER "Inzhenernoe obrazovanie i nauka v mirovom obrazovatel'nom prostranstve", g. Tomsk, 1-2 iyunya 2006 g.* [*Proceedings of the GEER International Conference "Engineering education and science in the world educational space", Tomsk, 2006, June, 1-2*]. Tomsk: TPU, pp. 255-260.
17. Spence, P. (2013) Engineering English and the high-tech industry: A case study of an English needs analysis of process integration engineers at a semiconductor manufacturing company in Taiwan. *English for Specific Purposes*, 32 (2), pp. 97-109.
18. Tsytovich, M.V. (2014) Kontekstnyi podkhod v obuchenii inostrannomu yazyku studentov tekhnicheskikh napravlenii universiteta [Contextual approach in teaching foreign language students in technical universities]. In: *Nauka YuURGU. Materialy 66-i nauchnoi konferentsii. Chelyabinsk, 14-17 aprelya 2014 g.* [*Science of SUSU. Proceedings of the 66th Scientific Conference. Chelyabinsk, 14-17 April 2014*]. Chelyabinsk, pp. 1384-1387.

19. Vaisburd, D.I., Chubik, P.S. (2003) Elitnoe inzhenerno-tekhnicheskoe obrazovanie [Elite engineering education]. *Inzhenernoe obrazovanie* [*Engineering Education*], 1, pp. 15-19.
20. Wilkins, S., Urbanovič, J. (2014) English as the Lingua Franca in Transnational Higher Education: Motives and Prospects of Institutions That Teach in Languages Other Than English. *Journal of Studies in International Education*, 18 (5), pp. 405-425.

Задачи профессионально-ориентированной языковой подготовки в неязыковом вузе нефтегазовой направленности

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Аннотация

В статье рассматриваются направления и задачи профессионально-ориентированной языковой подготовки в современном техническом вузе. Обобщаются вызовы внутренней и внешней сред института, влияющие на формирование профессионального портрета специалиста в области науки, техники и технологий. Анализируется роль иностранных языков как инструмента профессиональной деятельности, позволяющего современному специалисту осуществлять научно-исследовательскую и образовательную деятельность на более высоком уровне – международном.

Рассматривается новая функция языковой подготовки в техническом институте – формирование языковой среды вуза на основе принципов профессионально-ориентированного подхода к языковому образованию, междисциплинарности.

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Ключевые слова

Профессионально-ориентированная языковая подготовка, языковая среда технического университета, иноязычная коммуникативная компетенция, международная деятельность, профессиональные умения инженера.

Библиография

1. Артемова И.В., Майская Е.А. Повышение конкурентноспособности выпускников технических вузов на основе интегрированной системы подготовки по иностранным языкам // Совет ректоров. – 2013. – № 12. – С. 44-52.
2. Барышников Н.В. Особенности межкультурной коммуникации при несовершенном владении иностранным языком // Обучение межкультурной коммуникации в различных условиях: Сб. науч. статей. – Пятигорск, 2008. – С. 5-12.
3. Боев О.В., Коростелева Е.Н., Чучалин А.И. Проектирование магистерских программ на основе планирования компетенций специалистов / Под ред. проф. А.И. Чучалина. – Томск: ТПУ, 2007. – 63 с.
4. Вайсбурд Д.И., Чубик П.С. Элитное инженерно-техническое образование // Инженерное образование. – 2003. – № 1. – С. 15-19.
5. Кавнатская Е.В., Сафонова В.В. К проблеме описания профессионально-ориентированной иноязычной компетенции // Культуроведческие аспекты языкового образования: Сб. науч. трудов. – М., 2003. – С. 92-94.
6. Масалимова А.Р., Губайдуллина Г.Т. Кооперация высших технических школ и предприятий в иноязычной подготовке будущих инженеров // Ученые за-

писки Альметьевского государственного нефтяного института. – 2014. – Т. 12. – № 2. – С. 248-252.

7. Синельников Б. Инновационные подходы к организации научно-образовательной деятельности в техническом вузе // Высшее образование в России. – 2007. – № 12. – С.13-19.
8. Слесаренко И.В. Формирование поликультурной среды технического вуза на примере иноязычной подготовки студентов элитного технического образования // Сборник трудов Международной конференции GEER «Инженерное образование и наука в мировом образовательном пространстве», г. Томск, 1-2 июня 2006 г. – Томск: ТПУ, 2006. – С. 255-260.
9. Цытович М.В. Контекстный подход в обучении иностранному языку студентов технических направлений университета // Наука ЮУРГУ. Материалы 66-й научной конференции. Челябинск, 14-17 апреля 2014 г. – Челябинск, 2014. – С. 1384-1387.
10. Aberšek B. Development of communication training paradigm for engineers // Journal of Baltic Science Education. – 2010. – № 9 (2). – P. 99-108.
11. Bulajeva T. Internationalisation of higher education and nation building: resolving language policy dilemmas in Lithuania // Journal of Multilingual & Multicultural Development. – 2014. – № 35 (4). – P. 318-331.
12. Carloni G. Content and Language Integrated Learning: A Blended Model in Higher Education // International Journal of Technology, Knowledge & Society. – 2013. – № 9(4). – P. 61-71.
13. Cots J., Llurda E., Garrett P. Language policies and practices in the internationalisation of higher education on the European margins: an introduction // Journal of Multilingual & Multicultural Development. – 2014. – № 35 (4). P. 311-317.
14. Dlaska A. The role of foreign language programmes in internationalising learning and teaching in higher education // Teaching in Higher Education. – 2013. – № 18 (3). – P. 260-271.
15. Doiz A., Lasagabaster D., Sierra J.M. Language friction and multilingual policies in higher education: the stakeholders' view // Journal of Multilingual & Multicultural Development. – 2014. – № 35 (4). – P. 345-360.

16. Fallows S., Steven C. Integrating key skills in higher education. – London, 2000. – 192 p.
17. Kuteeva M. Disciplinary differences in the use of English in higher education: reflections on recent language policy developments // Higher Education. –2014. – № 67 (5). – P. 533-549.
18. Lappalainen P. Integrated language education – a means of enhancing engineers' social competences // European Journal of Engineering Education. – 2010. – № 35(4). – P. 393-403.
19. Spence P. Engineering English and the high-tech industry: A case study of an English needs analysis of process integration engineers at a semiconductor manufacturing company in Taiwan // English for Specific Purposes. – 2013. – № 32 (2). – P. 97-109.
20. Wilkins S., Urbanovič J. English as the Lingua Franca in Transnational Higher Education: Motives and Prospects of Institutions That Teach in Languages Other Than English // Journal of Studies in International Education. – 2014. – № 18 (5). – P. 405-425.