Socio-linguistic innovations in education: productive implementation of intercultural communication

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Abstract. Socio-linguistic innovations in education as effective managerial tool provide resolving wide range of cross-cultural communication problems, including the process of social and psychological adaptation of international students; however, methodological component of this notion is not completely identified. We performed innovative productive method in international students’ education and their socio-cultural adaptation. Our strategic target was to define the productive method effectiveness in the sphere of intercultural communication of international students in St. Petersburg Polytechnic University. We observed the level of communicative competence formation including linguistic, sociolinguistic, discursive, socio-cultural and social skills of international students which are highly important for their social and psychological comfort. We tested the students and identified that the level of their communicative skills was not enough for successful intercultural communication in a new socio-cultural environment (average point of 43% from 100% in Russian and 55% in English). Productive method implementation provided the communicative competence increase to the average point of 70% in Russian and to the average point of 71% in English. In conclusion, this study confirms the effectiveness of the productive approach as a methodological system developing student's communicative competence which allows designing a flexible socially-oriented educational environment including elements of psychological support and adaptation.

1. Introduction

Socio-linguistic innovations can be realized in various spheres of educational activity, in systemic education management, in management of the educational process, in the content of educational programs, in information technologies application etc. Development of socio-linguistic innovations is closely connected with the theory of social innovations, which are perceived as a deviation from the market economy norm, running contrary to the traditional understanding of the effectiveness of economic processes [1].

Implementation of social innovations includes the national and regional innovation systems development, the quality of national and regional innovation legislation, the stability and flexibility of the institutional framework, the availability of innovational infrastructure, etc. These factors determine the impact of social and economic development, the innovation system and the effectiveness of socially innovative projects implementation [2].
The presence of social innovation is an indicator of the civil society, filling the void between the market and the state [3]. Comparative analysis of the Russian experience of the social projects in education has made it possible to identify the main features of this phenomenon: the focus on the development of the original solution of various problems in the sphere of education; real economic effect; a wide range of students; interdisciplinary nature of educational projects; the great role of information technologies, etc.

In this connection, modern approaches to the educational process updating are of particular importance because they help to actualize the role of the learner's personality in the way of achieving educational results and expanding the zone of education influence on the socio-cultural reality of the students’ community.

In this context, we propose a solution to the problem of socio-cultural adapting of foreign students through the introduction of the productive approach.

The issue of socio-cultural adaptation of foreign students includes several questions: linguistic aspects, intercultural communication, interpersonal relationships.

As the practice shows, linguistic issue is the most vital. The language barrier prevents foreign students from building strong, friendly and constructive relationships with Russian students. Because of the language barrier foreign students exist in the isolated socio-cultural space and prefer to communicate with their fellow countrymen.

We consider that productive approach to Russian language learning can be the basis for the organization of effective foreign language acquisition at the university. We can confidently assert that the whole range of the productive educational forms, methods, tools and technologies covered by modern educational standards, should be subjected to certain modifications in order to develop students' skills of working with large flows of information, orientation towards information and systemic approach to learning and independent creative work. Accordingly, efficiency of the education systems depends largely on the development of students’ personal qualities, their ability to autonomous learning and effective use of information technologies. That is why the need to implement appropriate linguo-didactic technologies that allow providing high-quality students’ foreign language training has become one of the strategic objectives of contemporary education [4–6].

2. Methodology

Methods of scientific and pedagogical research are widely used in this paper: systematic structural analysis, synthesis, work with papers, generalization of experience and experimental work. Profound analysis of the scientific Russian and foreign pedagogical research reveals conceptual ideas of productive method as an innovative tool for international students’ socio-linguistic adaptation. The productive method is used for the development of student's linguistic knowledge, skills and personal qualities as the basis for a flexible socially-oriented educational model that includes elements of physiological support and adaptation of foreign students and creates constructive socio-cultural environment.

Introduction of the innovative productive approach in the system of social adaptation of foreign students was implemented in the framework of pedagogical experiment in the Institute of Humanities in St. Petersburg Polytechnic University. The experimental work included several stages.

During the initial stage of the experiment, we tested the development of communicative competence of students. At the intermediate stage of the experiment, we used the productive linguo-didactic technology as a set of training modules for productive linguistic e-reading activities, aimed at the acquisition of integrated socio-cultural and linguistic knowledge. This phase included several monitoring activities showing students’ personal development. At the advanced stage of the experimental work we solved the problem of computer technologies approbation as an integrated electronic educational resource in the sphere of productive foreign languages learning. At this phase we expanded the range of the electronic educational resources including e-learning methodical complex, electronic training module, electronic textbook, electronic practice book, virtual laboratory practice, modules for testing linguistic knowledge, tools for processing and visualizing the results of
learning, computer simulators (educational games) [7–9]. At this final stage we checked the level of students’ competence development in connection with effectiveness of adaptation process.

In this sense, it should also be noted that in the learning process, orientation of the student towards the result is largely formed by systemic monitoring with the help of electronic educational resources. Therefore, in order to form goal-setting skills of the learner it is also important to be aware of the assessment criteria of linguistic and communicative skills formation [10].

As a matter of practice, these parameters are set outside the learning situation — by means of electronic educational resource. Therefore, during productive linguistic e-reading an instructor and a student must share responsibilities for setting educational objectives. Moreover, if it is possible, it should become more of a student’s responsibility. By this way the student is put in real conditions of an independent, autonomous and responsible choice [11–13].

We emphasize that goal setting in its nature is based on the mechanism of self-reflexive assessment. Therefore, the productive method used for the development of goal-setting skills is essentially reflective. In order to develop these skills one can use the following productive techniques, associated with the social psychology: a survey, rating, method of ‘negotiations’, communicative games, etc. These techniques are used in the process of productive linguistic e-reading in individual and group forms of learning [14, 15].

3. Results and discussion

3.1. Initial stage of the experiment

At the initial stage of the experiment we conducted the survey to determine the level of the linguistic and cross-cultural comfort for international students who studied in Saint Petersburg Polytechnic University. 32 graduate students of the first course took part in this survey. The questionnaire consisted of 20 questions. As a result, it was revealed that the native languages for this group were Chinese (44%) and Arabic (56%). The first foreign language for them was English (100%). We found out that they studied Russian in order to get acquainted with the culture of another country (45%), some students studied Russian at school (10%), to communicate with friends (30%) and for communication on the Internet (15%). All respondents studied Russian for more than 3 years. They all had different level of language proficiency: the majority was at the intermediate level (45%), at the elementary level — 40%, advanced — 15%.

In order to make sure that the communicative competence of foreign students needs to be developed, we conducted linguistic tests that revealed their level of Russian and English. We identified the level of the core subcomponents of the communicative competence and found out that these competences had a low level of development in all study groups (Tables 1, 2).

Table 1. The level of the students’ communicative competence development at the initial stage (Russian).

| Competences         | Control group | Experimental group |
|---------------------|---------------|--------------------|
| Linguistic          | 51%           | 52%                |
| Sociolinguistic     | 41%           | 44%                |
| Discursive          | 38%           | 42%                |
| Socio-cultural      | 41%           | 38%                |
| Social              | 44%           | 41%                |
Table 2. The level of the students’ communicative competence development at the initial stage (English).

| Competences     | Control group | Experimental group |
|-----------------|---------------|--------------------|
| Linguistic      | 57%           | 52%                |
| Sociolinguistic | 48%           | 64%                |
| Discursive      | 49%           | 52%                |
| Socio-cultural  | 61%           | 48%                |
| Social          | 64%           | 51%                |

In our research we used socio-linguistic tests. For each task in the test, the students received points. The test results are presented as the percentage: the number of received points from possible is 100%. Thus, we have established validity of the pedagogical experimental research, which allows us to introduce the productive method in teaching foreign languages to foreign students. The results of our scientific research will be shown below.

3.2. Intermediate stage of the experiment

The experiment was conducted for four months. In the middle of this phase of the experiment, we identified the level of the core competencies development in English and in Russian languages. We found out that these competences increased in both groups (Tables 3, 4). The level of development of communicative competence was determined on the basis of the control test. Tests included tasks for which students received points. The test results are presented as the percentage: the number of received points from possible is 100%.

Table 3. The level of communicative competence development at the intermediate stage of the experiment (Russian).

| Competences     | Control group | Experimental group |
|-----------------|---------------|--------------------|
| Linguistic      | 61%           | 71%                |
| Sociolinguistic | 51%           | 65%                |
| Discursive      | 51%           | 72%                |
| Socio-cultural  | 62%           | 68%                |
| Social          | 65%           | 71%                |

Table 4. The level of communicative competence development at the intermediate stage of the experiment (English).

| Competences     | Control group | Experimental group |
|-----------------|---------------|--------------------|
| Linguistic      | 64%           | 71%                |
| Sociolinguistic | 55%           | 65%                |
| Discursive      | 59%           | 71%                |
| Socio-cultural  | 62%           | 77%                |
| Social          | 65%           | 70%                |

The study showed that the competences of students from the experimental group are developing better than those of the control group (Tables 3, 4). However, it is obvious that it is not enough to state a significant advancement of students in learning foreign languages and socio-cultural adaptation. In addition, we have identified the relative alignment of the development of communicative competence in Russian and English. Therefore, we continued our experimental work.
3.3. Advanced stage of the experiment

At the final stage of the experimental work, we again checked the level of students’ competence development in both groups. Studies have shown a significant increase in the level of competence development in the experimental group and not a substantial increase in the competence development in the control group in comparison with the initial indicators (Table 4).

Table 5. The level of communicative competence development at the final stage of the experiment (Russian).

| Competences      | Control group | Experimental group |
|------------------|---------------|--------------------|
|                  | initial data  | findings           | initial data  | findings           |
| Linguistic       | 51%           | 63%                | 52%           | 87%                |
| Sociolinguistic  | 41%           | 56%                | 44%           | 86%                |
| Discursive       | 38%           | 55%                | 42%           | 91%                |
| Socio-cultural   | 41%           | 63%                | 38%           | 92%                |
| Social           | 44%           | 66%                | 41%           | 93%                |

Table 6. The level of communicative competence development at the final stage of the experiment (English).

| Competences      | Control group | Experimental group |
|------------------|---------------|--------------------|
|                  | initial data  | findings           | initial data  | findings           |
| Linguistic       | 57%           | 67%                | 52%           | 88%                |
| Sociolinguistic  | 48%           | 58%                | 44%           | 87%                |
| Discursive       | 49%           | 61%                | 52%           | 92%                |
| Socio-cultural   | 61%           | 66%                | 48%           | 91%                |
| Social           | 64%           | 67%                | 51%           | 92%                |

The data presented in the tables confirms the effectiveness of our experimental work. Test control has made it possible to determine a significant increase in the level of students’ communicative competence development in the experimental group. Thus, the conducted experimental work confirmed the effectiveness of the productive method in foreign languages teaching of international students.

At this stage we also conducted sociological survey. The goal was to find out students’ view of the productive linguistic e-reading in the Institute of Humanities in Peter the Great St. Petersburg Polytechnic University. Respondents were international students of undergraduate and master’s courses of the Institute of Humanities. The choice of respondents' data was due to the possibility of considering linguists simultaneously as ordinary users of the network and future professionals who will use information technologies in their work.

The sample set for the questionnaire survey of students was formed on the basis of a quota sample (N = 142 respondents) according to the course and gender. In most cases, students were interviewed individually. In terms of quality, this survey approached a standardized interview. This provided a high degree of representativeness of the collected information: 95% of tested students claimed that productive learning helped them to break the language barrier and to feel more confident in the new socio-cultural environment, 92% of the respondents recognized the effectiveness of the productive method for their foreign language acquisition, 91% of tested students confirmed the increase of their integrated linguistic knowledge, 87% of the respondents stated that they would like to expand the use of e-learning in future.
4. Conclusion
Summing up, we note that our practical experience allows determining the following factors that ensure the successful formation of socio-linguistic environment, which positively affect the intercultural communication development integrating language and culture knowledge necessary for international students’ adaptation: implementation of productive linguo-didactic technology; advanced integrated socio-linguistic analysis of the academic targets and tools; socio-linguistic interpretation of the academic and professional methodical resources; productive method implementation for intercultural and interpersonal relationships design etc.

Practice results of our experimental study presented in this paper confirmed the effectiveness of the productive approach to the development of the constructive intercultural educational environment as a socio-linguistic innovative means of updating modern foreign-language education in Russia.

Thus, we can identify the main areas of further research in the presented scientific field: the development of the productive approach methodology in the area of socio-cultural adaptation of foreign students, the elaboration of appropriate methods and forms of education related to socio-psychological adaptation and the development of intercultural competence as the basis for constructive transnational communication in the framework of science and education.

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References
[1] Sachs J D 2005 The End of Poverty: Economic Possibilities for Our Time (New York: The Penguin Press) 413
[2] Boettke P J and Rathbone A 2002 Civil Society, Social Entrepreneurship, and Economic Calculation: Towards a Political Economy of the Philanthropic Enterprise (Carmel: Philanthropic Enterprise) 26
[3] Razak A A, Rowling M, White G and Mason-Jones R 2015 Foresight and STI Governance 10 (1) 43–52
[4] Battistella C and Nonino F 2012 Innovation: Management, Policy & Practice 14 (4) 557–75
[5] Böhm I and Schneider J 2011 Productive learning and international school development (Berlin: IPLE) 200
[6] Bakar R 2014 International Journal of Asian Social Science 4 (6) 722–32
[7] Lee L 2016 Language Learning & Technology 20 (2) 81–97
[8] Hafner C, Chik A and Jones R 2015 Language Learning & Technology 19 (3) 1–7
[9] Chapelle C and Voss E 2016 Language Learning & Technology 20 (2) 116–28
[10] Borg S and Al-Busaid S 2012 Learner Autonomy: English Language Teachers’. Beliefs and Practices (London: British Council) 50
[11] Liddicoat A J 2013 Language-in-education Policies: The Discursive Construction of Intercultural Relations (Bristol: Multilingual Matters) 256
[12] Norrby C and Hajek J 2011 Uniformity and Diversity in Language Policy Global Perspectives (Bristol: Multilingual Matters) 312
[13] Baohua Yu and Wright E 2016 Tertiary Education and Management 22 (1) 49–64
[14] Cheung A C K 2013 International Journal of Educational Management 27 (3) 221–41
[15] Sheridan V 2011 Higher Education 62 (2) 129–40