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Promoting International Students' Autonomy: the Experience of Tomsk Polytechnic University

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Abstract

The current study aims to define the optimal language teaching conditions for international students to exhibit and develop their autonomy. The survey of foreign and domestic scientific research works provided the grounds upon which to elaborate the concept of autonomy as a combination of activity-meaningful personal qualities necessary for a language learner to become an effective language user, who is able to develop and make full use of communicative abilities in order to successfully accomplish communicative tasks by means of a foreign language. Based on the structural components of Self-conception (cognitive, affective, conative), the typological characteristics of the dynamics in the development of student autonomy in the process of language training are introduced as the levels and criteria for evaluation. The results of diagnostic measuring of autonomy using expert assessment method, combined with students' self-evaluation at the intermediate and concluding stages of the pedagogic experiment, demonstrated evident positive dynamics in the experimental groups by contrast with one control group. The results obtained in the experimental study prove that the established language teaching conditions are efficient.

Keywords: EFL teaching; autonomous language learner; effective language user; communicative competence.

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1. Introduction

Foreign language communicative abilities enabling a graduate to successfully conduct educational and professional activities in a multicultural and international environment are considered nowadays to be a necessary professional quality. However, the reduction of contact classroom hours in groups with more than 12 students of usually A1 or lower language acquisition level makes the issue of language training optimization particularly urgent. Thus, the development of self-study abilities enhancing a learner's autonomy can be regarded as one of the most productive ways of making language learning more efficient. A special Language Training Program for international students has to be designed to implement the learner-centered approach which considers autonomy to be the main quality of the learner.

Some Russian specialists of language teaching methodology (M.A. Arijan, N.D. Galskova, Y.N. Solovova, T.Yu. Tambovkina, S.G. Ter-Minasova and others) state that the low level of autonomy affects the quality of language acquisition. Domestic and foreign researchers claim that the lack or absence of autonomous student learning contradicts the new educational paradigm and global trends in modern societal development. (I.V. Luksha, Y.A. Nasonova, N.F. Koryakovtseva, T.Yu. Ternovykh, I.N. Khmelidze, N. Aoki, P. Benson, G. Confessore, M.J. Gremmo, D. Little, W. Littlewood, L. Mariani, D. Nunan, A. Scharle and others).

Yet, some are of the opinion that autonomy is a western culture-specific construct, and therefore is alien to Russian pedagogical traditions and realities (Miljutinskaya, 2011). However, most researchers and experts acknowledge the objective necessity for autonomy in our schools and universities, which is connected with the Bologna Process implementation. Growing opportunities for our students' academic mobility is often limited by their readiness for that level of autonomy which is required for successful academic work and study abroad.

Etymologically, the word "autonomy" is rooted in the Greek *autonomia* which is freedom or the right to live by one's own laws. The term has been widely used and interpreted in law, politics and philosophy. Henri Holec is considered to be the first to have introduced the term "learner autonomy" into EFL teaching. Since then, a great number of uses and interpretations for this concept has appeared as it is gaining popularity with researchers all over the world. Most definitions could be divided into the following main groups:

- Contexts and situations in which learners study on their own;
- A set of skills, capacities, strategies needed for self-directed learning;
- Learners' responsibility for their own learning;
- The right or intrinsic motivation of learners for freedom and decision-making in their own learning;
- A characteristic feature or quality of a learner's/teacher's personality, educational process or an institution.

Having examined a number of scientific studies, we assume that autonomy is a personal quality and its essence is best described through the concept of Self, which is the source and the governor of such meaningful, interrelated states and processes as self-determination (Stone et al., 2009), self-efficacy (Bandura, 1997), self-actualization (A. Maslow; C. Rogers), self-regulation (Zimmerman, 1990; Laskey & Hetzel, 2010) and others.

2. Research methodology

The review of psychological, pedagogical and methodological literature on the issue of autonomy allowed us to define autonomy as an important activity-oriented learner quality based on personal self-management tools, which provide for the effective application of foreign language communicative abilities in implementing complex communication-cognitive and professionally-oriented tasks. Relying on the modern research on the problem of learner autonomy development, we have worked out an autonomy typology based on structural components of the Self-concept (cognitive, conative and affective) reflecting the levels and criteria of this quality in language training.

1. High level: an effective (cognitive, emotional and behavioral autonomy) individual typological complex characterizes a student as a professionally-oriented self-developing personality if all the components of Self-concept are well-developed and well-balanced. Students are aware of and evaluate critically their needs, abilities, and personal qualities, and manage their constructive self-control (subjective control) and intrinsic motivation in academic and professionally oriented activities.
2. Mid level: a perfunctory autonomy type is characterized by a generally positive attitude to professional self-

development on the one hand and by a low ability to identify personal intentions, professional prospects and, as a result, the inability to implement the given tasks on the other hand. This type of autonomy is usually revealed in the activities a quite productive learner strictly following the given instructions. Such students prefer working in a team rather than individually following the pre-defined program and proven algorithms.

3. Low level: a random autonomy is characteristic of students who are not aware of their own efficiency, have low self-esteem and a generally negative attitude toward themselves. Their dependence, impetuosity and rigidity are manifested in respect to the academic environment as well as in balancing individual self-processes (self-motivation, self-management and self-control). This type is characterized by inefficient activity, a formalistic approach, and few attempts to improve oneself and take on a challenge. Unsteady motivation impedes effective activity achievement and goal achievement.

4. Critical level: a deficient individual-typological complex appears when all three components (cognitive, conative and affective) are present on a threshold level. It appears in cases of negative self-esteem, when language learning is regarded as a burden, which usually results from previous negative educational experience as well as various psychological barriers. Students of this category demonstrate the signs of "learnt helplessness" and are characteristic of "dysfunctional autonomy, reluctant to accept outside help and learning process management" (Siew Foen Ng et al., 2012).

With the help of specialists from the Psychology Testing Laboratory at the Institute of Engineering Pedagogy NR TPU, we have measured and analyzed students' autonomy development. Autonomy markers and criteria were assessed on a scale from 0 (no manifestation of a characteristic) to 3 (sustainable manifestation of a characteristic). We have identified the following criteria and their markers.

1. Cognitive-communicative criterion. Markers: initiative, speech productivity, originality, critical thinking, individual style.
2. Agent-activity criterion. Markers: inner motivation for educational cognitive activity, self-control, self-regulation, a range of learning tools and strategies.
3. Personal-creative criterion. Markers: striving for competence and personal fulfillment in educational cognitive and communication activities, ambition, and responsibility.

Nowadays, numerous approaches and methods are suggested for the development and assessment of learner autonomy. Perhaps the best recognized is learner training in the effective use of a set of cognitive and metacognitive strategies (P. Bimmel, A. Chamot, S. Cotterall, I.N. Khmelidze, R. Oxford, E.K. Prohorec, H. Reinders, U. Rampillon, J. Rubin, and others). Widely spread information and communication technologies also help to create tools and environments for autonomous learning in self-access centers, laboratories and platforms for computer assisted language learning and web support (MOODLE, WebCT, Second Life, VELA, Tandem learning, etc.). Researchers suggest modular, project, game-based and other state-of-the-art technologies for students' development of autonomy (A. Chik, P. Benson, M. Kenning, N. Lazaro, H. Reinders, K. Schwienhorst, S. Wattana and others). Autonomy development implies a learner's active involvement, which is why self-evaluation and peer-assessment are encouraged through the use of various personal learners' logs, diaries and portfolios. Giving proper respect to the above mentioned studies, we have made an attempt to explore autonomy supportive pedagogic conditions, taking into consideration local contexts and realities (Chubik & Chuchalin, 2012). We make a hypothesis that successful development of students' autonomy depends on the implementation of the following set of pedagogic conditions:

1. Conceptual: developmental pedagogy frameworks; integrating autonomy, system and competence approaches; uniting the principles of synergetic and heuristic language teaching.
2. Motivational: establishing subject-to-subject interaction; personalization and scaffolding; creating situations and experiences for success; providing the opportunities for self-determination and creative self-realization; reducing psychological barriers, eliminating negative affective barriers.
3. Content-technological: integrated functional model of language training enhancement; the multivariate phase-gate technology of cognitive-communicative autonomy development; a set of problem and project-based tasks; autodidactic means for language learning and practice.

The efficiency of these conditions was tested in the course of the pedagogic experiment.

3. Pedagogic experiment

The aim of our experiment was to determine the optimal language training conditions for the development of international students' autonomy. Among other objectives of our research was the study of meaningful relations between the level of student's autonomy on the one hand and their ability to apply their gained knowledge, skills and qualities in real-life communication activities and the efficiency of performing language interaction tasks on the other.

During the diagnostic stage of our research 22 teachers and 6 groups of second-year international students (n=64, where **n** refers to the total number of students in 6 groups) were questioned and the initial parameters of autonomy were diagnostically measured by means of expert assessment in combination with students' self-evaluation.

The questionnaire survey revealed the following:

- Almost all surveyed (94%) thought that only one in ten students could be called autonomous;
- Most teachers (90%) explained that they rarely had students who were engaged in academic cognitive activity on their own initiative and persistently acquired abilities and worked out their own ways to complete academic and communicative tasks;
- Lack of inner motivation and inability to organize and control their academic activites were mentioned as the main obstructions in students' autonomous language practice;
- 87 percent of teachers thought that the efficiency of language practice autonomy could be developed by clear and regulated organization and control from the teachers' side;
- Active personal position of a student (1st place) and pedagogic supervision style of a teacher (2nd place) were indicated as the most important factors influencing the students' autonomy development.

The results of the initial diagnostic testing indicated that more than half of surveyed students (76,5%) had lower than an average autonomy level (random type). Only 5 students could be characterized as relatively autonomous and 10 students had the lowest level of autonomy (dysfunctional type).

To identify the efficiency of the conditions of students' autonomy development we carried out the experimental research on the premises of National Research Tomsk Polytechnic University in 4 groups of fourth-year students of the Institute of Natural Resources. (45 respondents were selected for the experiment, with 34 members for the variable groups and 11 – for the control group). The experiment lasted 4 semesters, during which the pedagogic conditions described above were implemented. A specially-designed practical methodological complex (Abramova, Bolsunovskaya, Kemerova, 2012; Kemerova & Gutareva, 2015) was used to support the academic process in the three variable groups. The experiment consisted of pilot teaching (implementation of the above stated pedagogic conditions) and three measurement procedures (pre-experiment, intermediate and final measurements).

The groups were selected according to the student's academic performance level, which was identified by the results of mid-course measurement. The mid-course measurement was carried out by specialists of the Education Quality Assurance Centre of NR TPU who conducted an expert evaluation of the tests that proved the tests' validity and the fairness of the assessment of students' knowledge level.

The students were distributed into control and experimental groups according to their academic performance level, so that the average rate of academic performance was almost identical.

The efficiency of students' educational cognitive activity was identified in course of completing problem and project tasks. The project work was assessed on the basis of gradually provided reports and outputs according to the following basic criteria: topicality, content, structure, scientific character, originality, amount of work completed (plan/actual), goal achievement (goal – result), and professional competence.

The level of problem-solving skills was defined on a scale from 0 (problem has not been stated or identified and has not been solved) to 3 (problem has been stated and solved completely, all the aspects have been covered, solution methods revealed, conclusions made, arguments and author's opinion introduced).

Communicative competence and collaboration were assessed according to the following criteria: language accuracy; use of topical terms; discourse management and structure; interactive communication; producing utterances in compliance with etiquette and communicative context; and use of authentic literature to acquire professional competence.

In order to estimate the rate of competence formed in each of the given criteria (project, foreign language

communication, problem-based task) we have used the following formula: **competence coefficient = S/M** with **S** being an average score for the task, and **M** – the maximum possible score.

The index of autonomous student personal skills formation was calculated using the methods of expert assessment in combination with self-assessment (Khmelidze, 2009). Students and experts assessed the presence or lack of autonomous student personal skills according to the criteria above and the exponent of the scale from 0 to 3. The overall index was calculated on the formula below: **autonomy index = a+b+c/ N** with **a** being the amount of replies 1; **b** being the amount of replies 2; **c** being the amount of replies 3; **N** being the total amount of choices.

4. Results

As a result of three measurement procedures the following findings were obtained. The autonomy index in the experimental groups has increased by 0,782.

Table 1. Autonomous student personal skills development (pre-test and post-test data).

Groups	Autonomy index (pre-test)	Autonomy index (post-test)	Autonomy index increase
Experiment	0,697	1,479	0,782
Control	0,733	0,909	0,176

The assessment of the level of competence formation according to the results of project-based work revealed an increase of the average coefficient in the experimental groups by 0,23. Compared to the negligible change in the control group, the autonomy index has increased by 0,176 and the competence formation coefficient – by 0,05.

Table 2. Summary table of competence formedness.

	Arithmetic mean scores for project and problem task (pre-test/intermediate/ final measurement procedures)								
Groups	Project work and report			Communicative competence			Problem-solving			Coefficient increase (%)
Control	27,2	28,5	29,1	11,9	12,7	12,9	1,8	1,8	1,9	5 %
Experiment	27,6	32,2	33,0	12,1	13,1	13,3	1,6	2,1	2,7	11%
	Coefficients of the formation of abilities								
	Project work and report			Communicative competence			Problem-solving			Arithmetic mean coefficient increase
Control	0,68	0,71	0,73	0,79	0,84	0,86	0,78	0,78	0,79	0,05
Experiment	0,69	0,80	0,82	0,81	0,87	0,88	0,76	0,81	0,84	0,23

The data obtained from three measurement procedures (pre-experiment, intermediate and final measurements) demonstrated significant positive dynamics of autonomy development in the experimental groups in contrast to the control group.

Table 3. Students' autonomy level dynamics in control (CG) and experimental groups (EG).

Level	Pre-test		Mid-test		Post-test	
	CG	EG	CG	EG	CG	EG
Effective (high)	12	10	13	18	12	28
Perfunctory (mid)	51	50	51	56	51	60
Random (low)	30	34	30	23	31	12
Deficient (critical)	7	6	6	3	6	0

The coefficient of competence formation increase in the experimental group substantially exceeds the negligible

change in the control group. Thus, the results of the experiment make it possible to conclude that the suggested complex of language teaching conditions proved to be efficient.

5. Conclusion

The results of our research allow us to report the following findings and conclusions. Autonomy as a personal quality can be successfully formed and developed in the process of EFL teaching to international students when a complex of relevant language training conditions (conceptual, motivational and content-technological) is established. These conditions create an environment where students become personally involved in the process of planning, implementing and evaluating their own learning through engagement of their self-skills and self-processes (self-motivation, self-regulation, self-control etc.).

The most essential factors for learners' autonomy development are opportunities for students' creative personal self-expression in academic cognitive-communicative activities (a system of differentiated problem and project tasks) by means of the English language and teacher's readiness (methodological, technological, psychological) to arrange such opportunities, context and situations (Ceylan, 2015).

During our interviews at the post-experimental stage, the participants (the students of experimental groups) mentioned the usefulness of their self-prepared autodidactic means (strategies and techniques, plans and flashcards, audio and video materials, personal corpora, e-porfolios and profiles, favourite internet and mobile tools etc.) that helped them to combine formal and informal language training into a purposeful, continuous, personally meaningful self-education.

A learner's autonomy ensures his or her effectiveness and successful performance in accomplishing complex problem tasks using a foreign language. Having developed autonomy in an academic environment, a student will be able to further exhibit this quality in his or her future professional activity.

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