Guidance of Independent Work of Technical College Students

The article contains the results of psycho-pedagogical research on the independent work of technical college undergraduates. The main purpose of the research was to identify the tools for guiding the above mentioned type of students' work and to describe it in relation to the psychological abilities of three categories of students ("widely subject-oriented", "narrowly subject-oriented", "subject-unoriented") and the peculiarities of foreign language communicative teaching activity in a technical college.

Key words: regulating students’ independent work, level of students’ readiness for independent work, presentation of the system of knowledge for independent work, teacher-student interaction, control of students’ achievement in the academic subject.

In the recent decade the labour market has seen a demand for specialists who are ready for self-education and self-improvement, since there has been a shift from the model “education for the whole life” to the paradigm “education through the whole life”. The independent work at the lessons of German is a tool for shaping the students’ activeness and independence as personality features, that is why the problem of efficient guidance of undergraduates' independent work at the senior level of Bachelor's programme (III–IV year) in a technical college is particularly relevant nowadays. Recently at the senior stages of Bachelor’s programme (III–IV year) there has been an emphasis on students’ independent activities and an increase in academic hours given to this type of activity, but at the same time a lot of students experience considerable difficulties with independent performance of many types of foreign language communicative education professional activity. In this connection the concept of students’ independent work is being greatly reconsidered now.

In Russian psychology the research of students’ independent work was done by many outstanding psychologists and educators, such as I.Z. Glikman, T.A. Ilyina, A.G. Kazakova, M.I. Makhmutova, P.I. Pidkasisty, E.. Polat, V.V. Shalamov and many others. The independent work is a special type of class, group or individual educational activity, performed under the guidance but without the direct participation of the teacher; it is characterized by high activeness of cognitive processes and can be realized both in class and outside the classroom; it serves as a means for raising the efficiency of education process and preparing the students for independent acquisition of knowledge [8]. The independent work can be defined as task-oriented, internally-motivated activity, structured by the individual himself in the combination of the performed actions and corrected by him according to the process and the result [4]. The individual’s activeness and the ability of conscious self-regulation of the activity, represent, in their turn, necessary conditions of efficient independent work of technical college students. According to N.S. Leites, activeness and self-regulation are “the universal internal condi-
tions for realization of activity and the necessary basis for the development of general and special abilities” [5, p. 53]. A.K. Osnitsky defines self-regulation of mental activity as “system-organized mental process of the initiation, formation, maintenance of all types and forms of external and internal activity, which are directed towards the achievement of the individual’s aims, and controlling them” [6, p. 15].

On the basis of system approach to the control of the quality of education process (F.F. Korolev, N.V. Kuzmina, V.V. Monakhov, O.P. Okolelov, V.R. Shapovalov) the regulation of students’ independent work includes several cycles: “assessment of the level of students’ readiness for independent work, presentation of the system of knowledge for independent work, teacher-student interaction, control of students’ achievement in the academic subject” [7, p. 95].

The readiness for independent activity (B.G. Ananiev, B.F. Raisky, A.Ya. Kolomensky, V.A. Slastenin) – is an integrative personal formation which serves as a qualitative dynamic characteristic of the effectiveness of the student’s preparation; it is represented by the unity of motivational, informative and processual components. The motivational component of readiness for independent activity means the student’s attitude to independent work, his interest in learning. The informative component of readiness for independent activity includes the students’ theoretical preparation, the student’s analysis of his educational activities. The processual component of readiness for independent activity consists of the students’ abilities for self-organization and self-regulation of independent work [1]. For the purpose of assessing the level of readiness for independent work of the students who study German at the senior level of Bachelor’s programme (III-IV year) in a technical college, an appropriate questionnaire has been worked out: “The Diagnostics of the Level of Readiness for Independent Work at the German Lessons in a Technical College”. The test-retest reliability of the questionnaire was estimated with the help of Pearson’s moment correlation coefficient. Then a group of independent experts estimated the content validity of the questionnaire [2]. The questionnaire was corrected several times in the process of its development. The data received with the help of the questionnaire “The Diagnostics of the Level of Readiness for Independent Work at the German Lessons in a Technical College” was classified in accordance with three categories of students: “widely subject-oriented”, “narrowly subject-oriented”, “subject-unoriented”; the sample group included 282 people. On the basis of the criterion “motivation for learning in a higher education institution” 282 students of a technical college were classified into three categories: “widely subject-oriented” (69 people), “narrowly subject-oriented” (112 people) and “subject-unoriented” (101 people). The “widely subject-oriented” are the students who do equally well in all the subjects and have high motivation for learning in a technical college. The “narrowly subject-oriented” do well only in those subjects which are necessary for their future professional activity. The “subject-unoriented” seek to get a diploma; their acquisition of knowledge is formal.

When working with the author’s questionnaire “The Diagnostics of the Level of Readiness for Independent Work at the German Lessons in a Technical College”, the “widely subject-oriented” students give high scores (60–48 scores) to the questions which mark
a high level of readiness for independent work. That is to say, for the “widely subject-oriented” students it is typical to be personally developed in terms of enhancement of goal-setting, self-awareness, mental reflexivity, self-discipline, and the students of this category already have positive motivation for learning German in a technical college. The “narrowly subject-oriented” students have a medium level of readiness for independent work, judging by the high scores (60–48 scores) which they put for the questions marking the level of readiness for independent work as medium. Thus, the “narrowly subject-oriented” students have certain difficulties when working independently. They do not always perceive the aim as the final result of independent work, they may not be capable of seeing mistakes in the process of independent work, their will is not formed at the high level. The “subject-unoriented” students give high scores (60–48 scores) to the questions marking a low level of readiness for independent work. The “subject-unoriented” have negative motivation for learning German in a technical college, let alone the abilities for modeling independent activity, correlation of the received results with the aim and the tasks stated in the conditions of the activity, or such quality as strong will.

For the successful guidance of students’ independent work at the senior level of Bachelor’s programme (III–IV year) in a technical college, we worked out a set of tasks for independent work, considering psychological abilities of three categories of students and their level of readiness for independent activity. The set of tasks of three difficulty levels was worked out on the basis of technical texts for students of the Electronics and Instrumentation Faculty of Taganrog Technological Institute of the Southern Federal University (TTI SFedU). The technical texts had to fit the following requirements:

– the texts have to contain linguistic (lexical and grammatical) units which are the most typical for the specialties of the Electronics and Instrumentation Faculty of Taganrog Technological Institute of the Southern Federal University (TTI SFedU);
– the logical sequence of texts’ presentation has to correspond to the process of the students’ studying special subjects, that is to say, the list of the texts in the textbook must be matched with the programme of specialist’s training, so that the professional information, processes and phenomena described in the texts could be understood by the students;
– the texts have to fulfill the task of giving professionally important information;
– the texts and the tasks to them have to develop the skills of semantic processing of information in the course of reading, as well as to allow formation of the basis, which is necessary for text generation in different types of professionally oriented communication in a foreign language;
– the texts must be authentic, the topics should be selected after interviews with the lecturers of major departments, in accordance with the peculiarities of the students’ future professional activity.

On the basis of technical texts and in accordance with the level of readiness for independent work we worked out a set of tasks for independent work of three categories of students: “widely subject-oriented”, “narrowly subject-oriented” and “subject-unoriented” (table 1).
Table 1

<table>
<thead>
<tr>
<th>“Widely subject-oriented” students</th>
<th>“Narrowly subject-oriented” students</th>
<th>“Subject-unoriented” students</th>
</tr>
</thead>
<tbody>
<tr>
<td>–communicative tasks of high level of difficulty;</td>
<td>–pre–communicative and communicative tasks;</td>
<td>–learning new words and terms;</td>
</tr>
<tr>
<td>–doing creative work and projects;</td>
<td>–rendering the results of solving professionally oriented problems in German;</td>
<td>–understanding grammar material through individual effort;</td>
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<tr>
<td>–writing an essay, a business letter in German.</td>
<td>–preparing library–research papers, reports, presentations.</td>
<td>–doing tasks according to the given algorithm.</td>
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</table>

The efficient guidance of students’ independent work at the senior level of Bachelor’s programme (III–IV year) in a technical college requires taking into consideration the forms of the teacher’s interaction with three categories of students. Pedagogical interaction or teacher-student interaction is a value-based, socially induced and important person-oriented process of realization of interpersonal and activity-based contacts between the student and the teacher (under the teacher’s guidance). Pedagogical interaction or teacher-student interaction aims at the transmission of culture in the process of spiritual practical activity of the teacher and the student; it is associated with profound changes in both of the contacting sides; under certain conditions the course and the result of these changes include conscious intensive and productive self-development, self-enhancement and self-fulfillment of the interacting persons [3]. After the analysis of special literature on the problem of teacher-student interaction and on the basis of personal experience, we singled out and differentiated the forms of teacher-student interaction in accordance with three categories of students.

Table 2

<table>
<thead>
<tr>
<th>“Widely subject-oriented” students</th>
<th>“Narrowly subject-oriented” students</th>
<th>“Subject-unoriented” students</th>
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<tbody>
<tr>
<td>1. The teacher acts as a senior assistant;</td>
<td>1. The teacher acts as a tutor;</td>
<td>1. The teacher acts as a guide and supervisor;</td>
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<tr>
<td>2. The style of communication is democratic;</td>
<td>2. The style of communication is democratic;</td>
<td>2. The style of communication is closer to authoritarian;</td>
</tr>
<tr>
<td>3. The students’ self-control actions are automatic.</td>
<td>3. Self-control is formed but is not automatic enough.</td>
<td>3. Self-control is not formed.</td>
</tr>
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</table>

Intensification of the student’s cognitive activity, increase in the efficiency of his independent work imply not only special organization but also control. When controlling the independent work of technical college students, it is necessary to...
use such methods and forms that do not make the students feel tough pressure, but are perceived by them as necessary help and means of raising their cognitive activity.

Table 3

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<th>“Subject-unoriented” students</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Flexible control (the teacher only specifies the aim; the students must independently choose the means and ways of solving academic problems within the given material);</td>
<td>1. Relatively strict control (the aim and the guidelines are specified; fulfillment of some operations is controlled);</td>
<td>1. Strict control (each academic operation is regulated);</td>
</tr>
<tr>
<td>2. Intermediate control at the end of a section or a module of the course; self-control of the student in the process of studying the subject when preparing for tests; final control in the subject in the form of a pass-fail test (credit) or an examination.</td>
<td>2. Intermediate control; self-control; final control; control of residual knowledge and skills a certain period of time after completing the course of study in the subject.</td>
<td>2. Current control, that is regular monitoring of academic achievement at the lessons; intermediate control; final control; control of residual knowledge and skills</td>
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<tr>
<td>3. Testing; role plays; business games; working out projects.</td>
<td>3. Individual creative tasks connected with future professional activity; testing; discussions; role plays; business games; working out projects.</td>
<td>3. Express-quiz, express-testing; testing; preparing library-research papers, reports,</td>
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</table>

Consequently, the efficient guidance of students’ independent work at the senior level of Bachelor’s programme (III–IV year) in a technical college requires:

– taking into consideration the level of readiness for independent work of three categories of students;
– working out a set of tasks for independent classroom and extracurricular work of three categories of students;
– using different forms of pedagogic interaction, that is to say the interaction of the teacher with students of three categories;
– using different methods, types and forms of control of independent work of three categories of students.

In the first place, regulation of students’ independent work should be based upon the psychological abilities of “widely subject-oriented”, “narrowly subject-oriented” and “subject-unoriented” students.
The question of individually-differentiated teaching remains very important in the process of organization of foreign-language communicative educational professional activity at the senior level of Bachelor’s programme (III–IV year) in a technical college. Individual psychological characteristics of students are direct source of the variety of factors determining academic progress or failure in their studies at any educational level.

References
8. Shalamov V.V. Organization of independent work in educational institutions. Historical Science and Historical Education at the turn of XXth century // The fourth All-Russian Readings in History and Pedagogics. – Yekaterinburg: UrGPU, Bank of cultural information, 2000.