

# Introspectiveness of Higher Education Students: Study and Development

## Introspectividad de los estudiantes de educación superior: estudio y desarrollo

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## Summary

The change in strategic guidelines in Russian education is associated with a revision of the goals of teaching and upbringing. However, the emphasis of reforms has shifted towards the formation of the required professional competences at this stage in the development of the education system of the Russian Federation. We think that it is possible to achieve the set goal of higher education through the development of the introspectiveness as a quality of the personality of students. The formation of the introspectiveness in a future specialist will have an effect on the successful mastery, expansion and transformation of social experience, as well as the internal plan of action. Thus, demonstrating the formed introspectiveness as a personality trait, the student is able to organize his educational activities independently, activities to cognize the surrounding reality and his inner world, as well as self-determine in various life situations, including the development of general cultural and professional competences. In this regard, the emphasis in the issue of developing the introspectiveness of students is made on specifying the conditions that must be created at a higher education institution for the manifestation and formation of this personality quality. The purpose of the article is to study the level of the introspectiveness of university students and develop psychological and pedagogical conditions that develop this personality quality. The leading techniques for the study of this problem were the following: Q-sort Technique; the technique for diagnostics of an individual measure of the introspectiveness degree. At the stage of the ascertaining experiment, the levels of the introspectiveness of university students were revealed. The results of the ascertaining experiment convincingly demonstrated the need to organize special work to develop the introspectiveness of students. The authors substantiated that the success of developing students' introspectiveness is ensured by the created psychological and pedagogical conditions. A model of developing the introspectiveness as a personality quality of a future professional has been developed and tested. The results of this study create opportunities for further development of the problem in the context of the organization of lectures in the learning process for students of different courses and types of specialization. The article is intended for psychologists, tutors, education managers.

**Keywords:** self-reflection, introspectiveness, students, university, formation.

## Resumen

El cambio en las pautas estratégicas en la educación rusa está asociado con una revisión de los objetivos de la enseñanza y la educación. Sin embargo, el énfasis de las reformas se ha desplazado hacia la formación de las competencias profesionales necesarias en esta etapa del desarrollo del sistema educativo de la Federación de Rusia. Pensamos que es posible lograr el objetivo planteado de la educación superior a través del desarrollo de la introspectividad como una cualidad de la personalidad de los estudiantes. La formación de la introspectividad en un futuro especialista tendrá un efecto en el dominio, expansión y transformación exitosa de la experiencia social, así como en el plan de acción interno. Así, demostrando la introspectividad formada como un rasgo de personalidad, el estudiante es capaz de organizar sus actividades educativas de forma independiente, actividades para conocer la realidad circundante y su mundo interior, así como autodeterminarse en diversas situaciones de la vida, incluido el desarrollo de la cultura general y competencias profesionales. En este sentido, el énfasis en el tema del desarrollo de la introspectividad de los estudiantes se hace en especificar las condiciones que deben crearse en una institución de educación superior para la manifestación y formación de esta cualidad de personalidad. El propósito del artículo es estudiar el nivel de introspectividad de los estudiantes universitarios y desarrollar las condiciones psicológicas y pedagógicas que desarrollan esta cualidad de personalidad. Las principales técnicas para el estudio de este problema fueron las siguientes: técnica de Q-sort; la técnica para el diagnóstico de una medida individual del grado de introspectividad. En la etapa del experimento de determinación, se revelaron los niveles de introspectividad de los estudiantes universitarios. Los resultados del experimento de comprobación demostraron de manera convincente la necesidad de organizar un trabajo especial para desarrollar la introspectividad de los estudiantes. Los autores corroboraron que el éxito en el desarrollo de la introspectividad de los estudiantes está garantizado por las condiciones psicológicas y pedagógicas creadas. Se ha desarrollado y probado un modelo de desarrollo de la introspectividad como cualidad de personalidad de un futuro profesional. Los resultados de este estudio crean oportunidades para un mayor desarrollo del problema en el contexto

de la organización de conferencias en el proceso de aprendizaje para estudiantes de diferentes cursos y tipos de especialización. El artículo está dirigido a psicólogos, tutores, gestores educativos.

**Palabras clave:** autorreflexión, introspectividad, estudiantes, universidad, formación.

## Introduction

The change in strategic guidelines in Russian education is associated with a revision of the goals of teaching and upbringing. One of the major problems of the educational system of the higher education institution is the inconsistency with the demands of our time, in this regard, the issue of reforming is significant and topical. In reforming higher education, general ideas are laid regarding the revision of the target guidelines of education, its content and forms.

Traditionally, higher education pursued the goal of training highly qualified personnel in all main areas of socially useful activity in accordance with the needs of society and the state, meeting the needs of the individual in intellectual, cultural and moral development, deepening and expanding education, scientific and pedagogical qualifications (Federal Law, 2012). However, at this stage in the development of the educational system of the Russian Federation, the emphasis of reforms has shifted towards the formation of the required professional competences (Reznichenko et al., 2018). We think that it is possible to achieve the set goal of higher education through the development of the introspectiveness as a quality of the personality of students.

The formation of the introspectiveness in a future specialist will have an effect on the rapid adoption, expansion and transformation of social experience, as well as the internal plan of action (Karpov & Zhedunova, 1982). For a full-fledged organization of one's own educational activity, a student needs an introspectiveness, which implies the orientation of the cognition processes towards oneself in various actions and deeds. The formed introspectiveness contributes to the fact that the student is involved in the processes of self-knowledge and self-analysis (Efimova et al., 2018; Salakhova et al., 2019).

The problem of reflection, introspectiveness is an interdisciplinary one (Karpov, 2004). In modern domestic psychology, the concept of "introspectiveness" is identified with the ability of individual consciousness to go beyond the boundaries of one's own "Self", to analyze and comprehend events, both external and internal ones (Karpov, 2004).

Scientific and methodological approaches to introspectiveness as a personality trait in psychological science have several views. Thus, the system-activity approach presented by L.S. Vygotsky (2005), A.N. Leontiev (1975), A. Petrovsky and V. Petrovsky (2014) explains the development of the human psyche and leads to self-consciousness of the individual.

The cognitive approach in foreign and domestic psychology interprets introspectiveness as a regulatory component of the psyche (Bieri, 1966; Kholodnaya, 2019).

The axiological approach focuses on the values, meanings and self-development of the individual (Antsyferova, 1980; Asmolov, 2007; Zinchenko, 2006; Leontiev, 2011).

In this regard, it is worth emphasizing the position of G.P. Shchedrovitsky (2001) regarding the definition of the concept of "introspectiveness". The author defines introspectiveness as the main basic property of the individual's personality through which the subject realizes and regulates his activity.

Thus, demonstrating the formed introspectiveness as a personality trait, the student is able to organize independently his educational activities, activities to cognize the surrounding reality and his inner world, as well as self-determine in various life situations, including in the formation of general cultural and professional competences (Orlova, 2006; Ryabysheva, 2016; Erofeeva et al., 2020; Salakhova et al., 2020).

In this regard, the emphasis in the issue of developing the introspectiveness of students is made on specifying the conditions that must be created at the university for the manifestation and formation of this personality quality.

The purpose of the article is to study the level of introspectiveness of university students and develop psychological and pedagogical conditions that foregrounds this personality quality.

### Materials and Methods

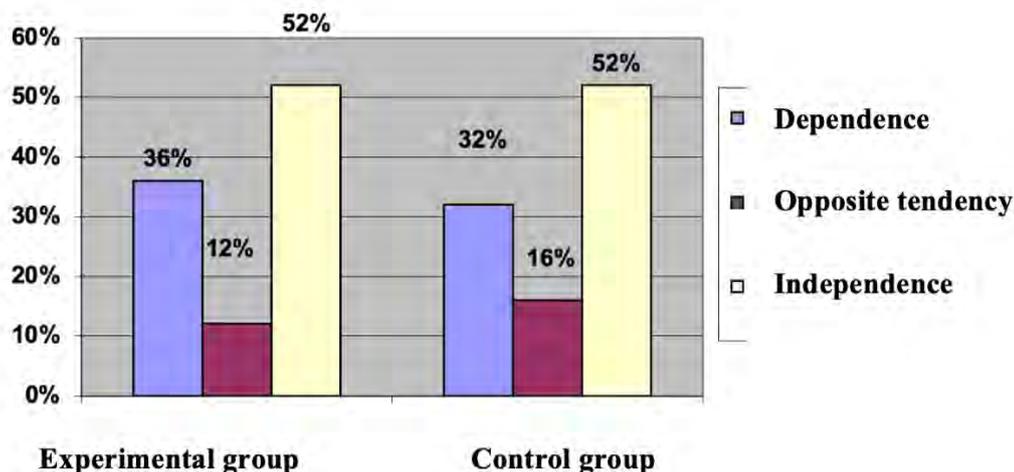
The study was carried out at the universities of Irkutsk, Moscow, Voronezh and Ulyanovsk. The total sample size was made up of 351 people, with the mean age of 18.9. Students were randomly distributed to the control (N = 175) and experimental (N = 176) groups.

A comprehensive diagnostic study of introspectiveness included the following techniques: "Q-sort" (Stephenson, 1969; 1972; Shchedrovitsky, 2001), a technique for diagnosing an individual measure of the expressiveness of introspectiveness (Karpov, 2004; Munchak & Feoktistova, 2020). The comparison of the experimental data between the two groups was carried out using the Mann-Whitney test.

### Results and Discussion

In the course of the research work to study the level of introspective skills of university students, the following results were obtained.

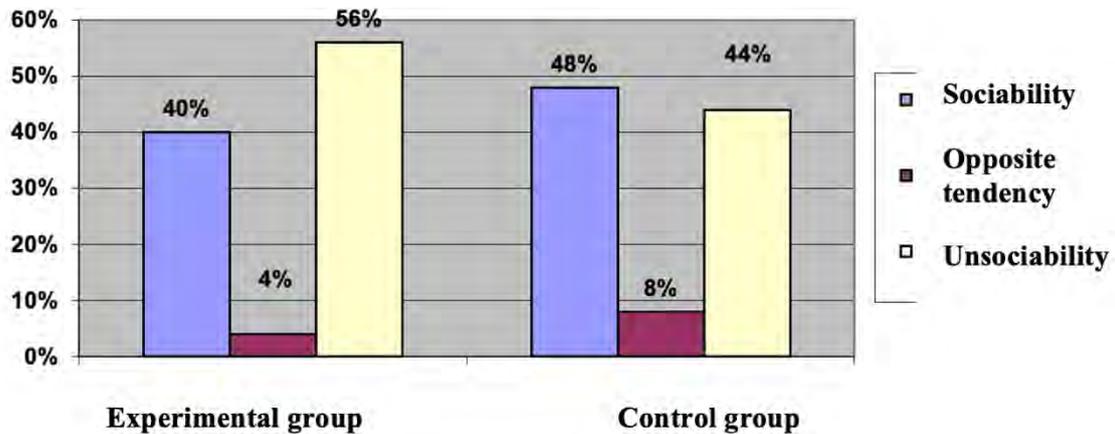
For instance, the comparative results of the diagnosis of self-conceptions according to the "dependence-independence" scales according to the "Q-sort" technique in the experimental and control groups are presented in Figure 1.



**Figure 1.** Indicators of the level of "dependence-independence" by the technique "Q-sort".

Thus, on the diagram presented above, one can see that there are approximately the same indicators on the scale of "dependence-independence" in the experimental and control groups. In the experimental group, 36% of the students showed dependence, 12% - the opposite tendency, and 52% - independence. In the control group, 32% showed dependence, 16% - the opposite tendency, and 52% - independence. It should be noted that the opposite tendency may indicate the presence of an internal conflict.

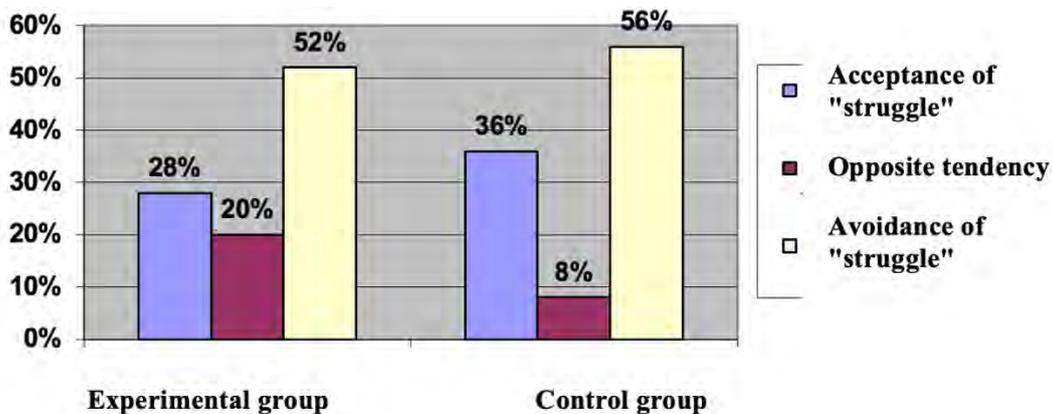
Figure 2 shows the results of the experimental and control group of diagnostics of students using the "Q-sort" technique to study their ideas about themselves on the "sociability-unsociability" scale.



**Figure 2.** Indicators of the study of ideas about oneself on a scale "Sociability-unsociability" by the "Q-sort" technique.

Thus, in Figure 2 one can see that in the experimental group, 44% of the students showed sociability, 4% - the opposite tendency, and 56% - unsociability. In the control group, the following indicators were obtained: 48% of the students showed sociability, 8% - the opposite tendency, and 44% - unsociability. As with the scales "dependence-independence", there are no significant differences in the data for the two groups.

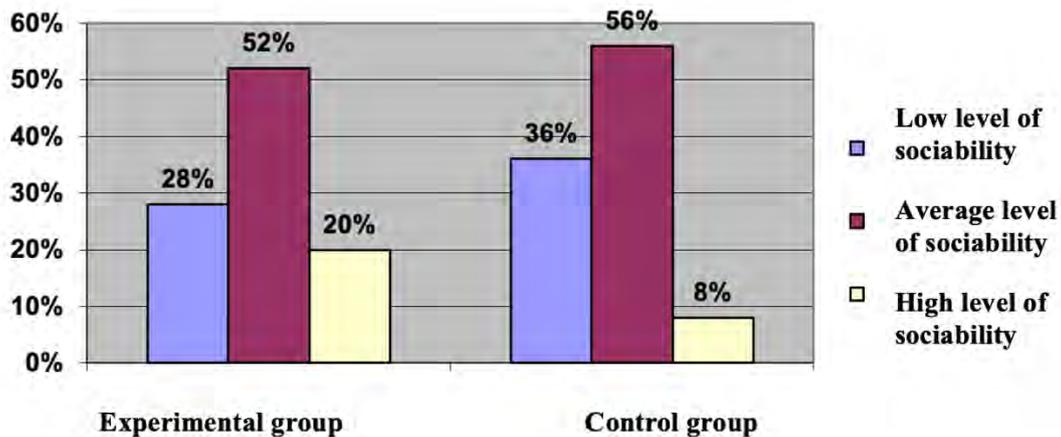
Figure 3 shows the results of self-perception diagnostics on the scales "acceptance of a "struggle"- avoidance of a "struggle" by the "Q-sort" technique in the experimental and control groups.



**Figure 3.** Indicators of self-conceptions on the scales "accepting a "struggle"- avoiding a "struggle" using the technique "Q-sort" in the experimental and control groups.

On the presented diagram, one can see that in the experimental group, 28% of the students showed the position of accepting a "struggle", 20% - the opposite tendency, and 52% - the avoidance of a "struggle". Thirty-six percent of students in the control group had the position of accepting a "struggle", 8% have an opposite tendency and 56% - avoiding a "struggle". In this case, one can speak about an insignificant difference in the indices of the experimental and control groups on the scale "accepting a "struggle" - avoiding a "struggle".

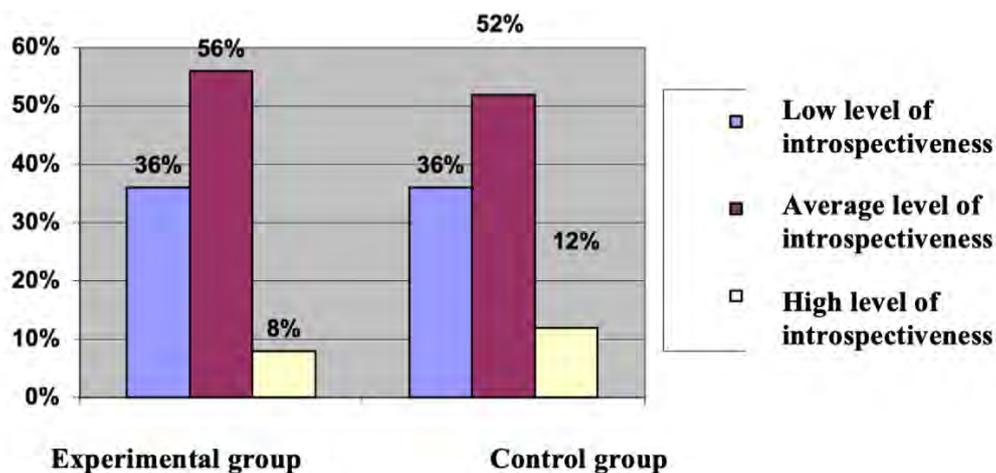
Figure 4. also shows the indicators of the sociability level applying the technique "Q-sort".



**Figure 4.** Indicators of the initial level of sociability using the "Q-sort" technique in the control and experimental groups.

On the diagram presented above, one can see that 28% in the experimental group have a low level of sociability, 52% have an average level and 20% have a high level. In the control group, the following indicators of the level of sociability were obtained: 36% had a low level, 56% had an average level and 8% had a high level. It should be noted that, in general, in two groups, students have sociability which is insufficiently developed.

Quantitative and qualitative diagnostics data of the skills of students' personal self-reflection using the technique for determining the individual measure of the expressiveness of the property of introspectiveness proposed by A.V. Karpov (2004) are shown in Figure 5.

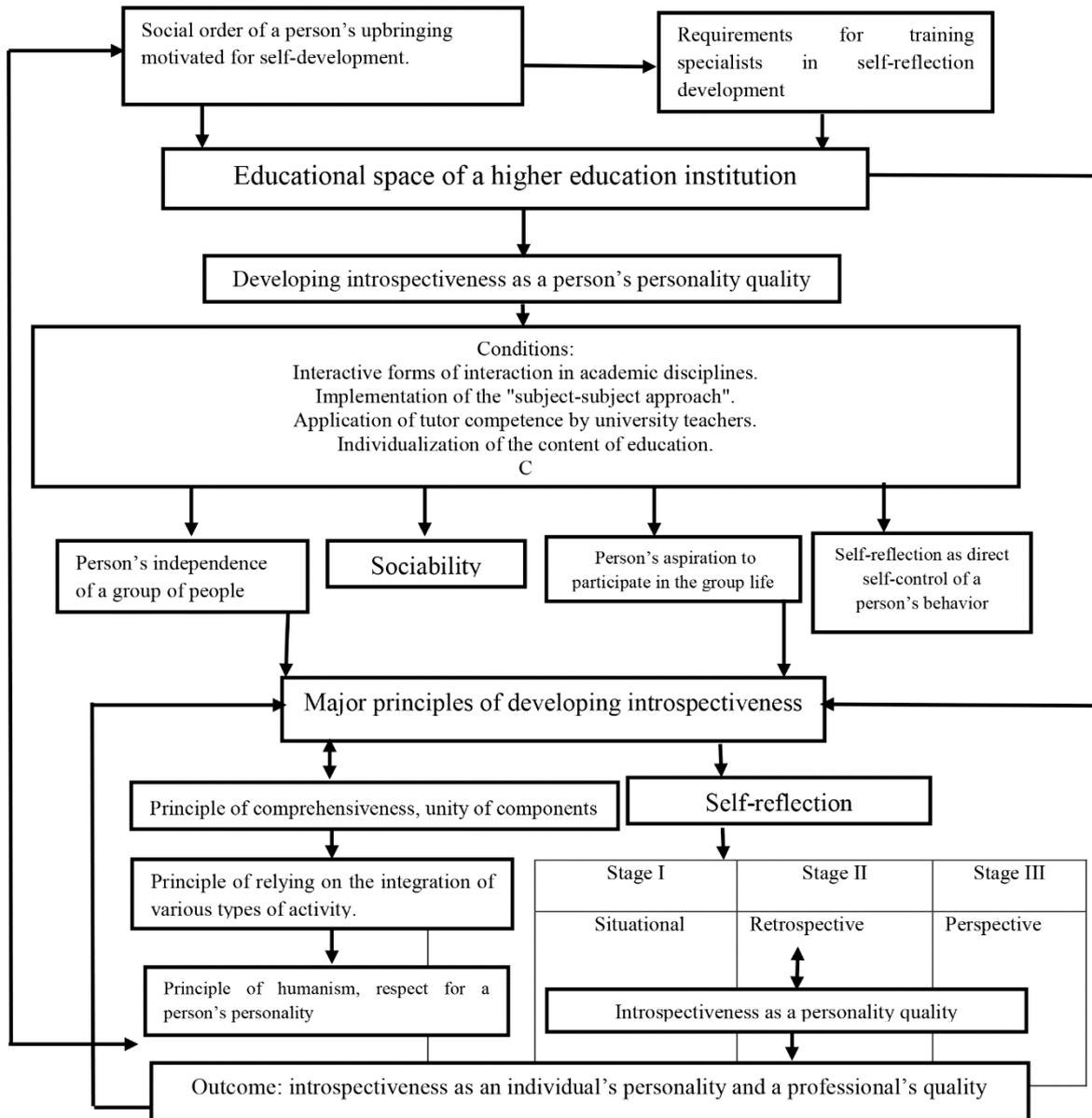


**Figure 5.** Indicators of the initial level of introspectiveness in the experimental and control groups using the technique for determining the individual measure of the introspective property expressiveness proposed by A.V. Karpov (2004).

The diagram shows that 36% of the experimental group had a low level of introspectiveness, 56% had an average level and 8% had a high level. In its turn, 36% of the control group had a low level of introspectiveness, 52% had an average level, and 12% had a high level. It should be noted that in two groups there is a low level of formation of introspectiveness, which indicates the need for psychological and pedagogical influence in order to change these indicators.

The comparison of the two groups using the Mann-Whitney test showed that students have the same results of introspectiveness ( $U = 444.5$ ), sociability ( $U = 442.5$ ), "dependence-independence" ( $U = 450$ ). These critical values fall into the zone of insignificance, which corresponds to the level of  $p \leq 0.05$ . Consequently, the data of the ascertaining experiment on the sample of the control and experimental groups are identical.

On the basis of a theoretical analysis of the literature and the obtained experimental data, a model has been developed for developing introspectiveness as a personality trait through specially created psychological and pedagogical conditions.



**Figure 6.** Model of introspectiveness development as a personality quality of university students.

Purpose of the model: to raise the level of introspectiveness as a quality of university students' personality.

Psychological and pedagogical conditions: the organization of the educational process through an interactive lesson, the use of active learning methods, the use of techniques for the formation of introspective skills.

1. Introduction of a system of group classes: 1) the purpose is the individualization of the educational environment and the formation of the required skills; 2) the role of the teacher is the organization of the learning space and its maintenance; 3) the role of the learner - the organization of their own educational activities, in accordance with their interests and capabilities; 4) the outcome is the emergence of an opportunity to individualize education; students in these conditions develop general professional competences.

2. Implementation of the subject-subject interaction: 1) the purpose - the formation of communicative introspective skills; 2) the role of the teacher is to organize the learning space and its maintenance; 3) the role of the learner is to take responsibility for his learning activities and organizing them "for himself"; 4) the outcome is a manifestation of situational self-reflection.

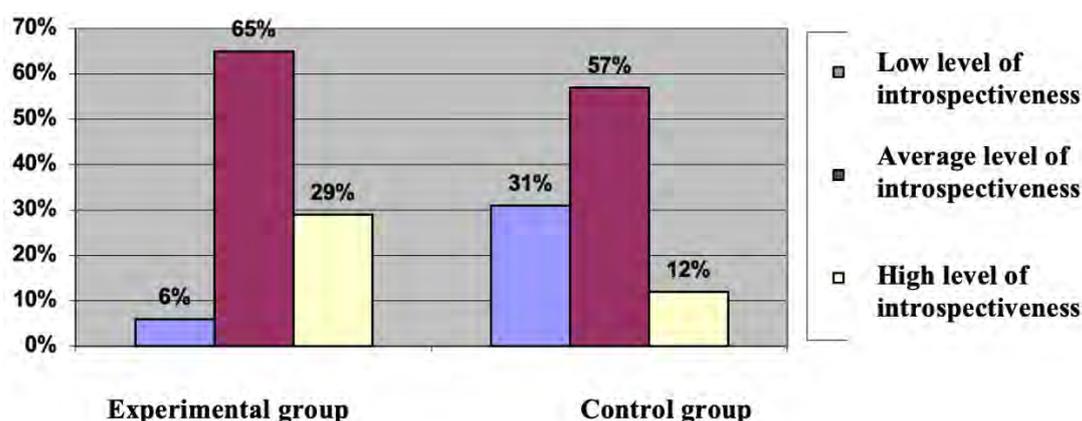
3. Individualization of the content and form of education: 1) the purpose is to form personal introspective skills; 2) the role of the teacher is to organize the learning space and its maintenance; 3) the role of the learner is to organize his own educational activities; 4) the outcome is a manifestation of retrospective self-reflection.

4. Application of tutoring competence of a university teacher: 1) the purpose is to form intellectual introspective skills; 2) the role of the teacher is to organize the learning space and its maintenance; 3) the role of the learner is to test his skills in a new, unusual environment; 4) the outcome is to give an opportunity to manifest perspective self-reflection.

For the teaching staff of a higher education institution, this model creates an understanding of the importance of developing students' introspectiveness and creates systemic ideas completely for its development.

Based on the model representation of introspectiveness, the student himself needs to build his own educational route and take responsibility.

A comparative analysis of introspectiveness based on the results of the educational experiment is shown in Figure 7.



**Figure 7.** Comparison of the introspectiveness formation in the experimental and control groups based on the results of the educational experiment.

Thus, on the presented diagram, we see that only 8% of students in the experimental group demonstrated a low level of introspectiveness, 65% of respondents have an average level of introspectiveness, and 29% of students have a high level of this personality trait.

In the control group of subjects, the data of the educational experiment were distributed as follows: 31% of the participants in the experiment with a low level of introspectiveness, 57% of students with an average level of introspectiveness, and only 12% of students showed a high level of self-analysis.

Student's t-test was used to confirm the reliability of the differences in the formation of introspectiveness between the experimental and control groups. So, the following result was obtained: Student's t-test = 2.8 at  $p \leq 0.01$ , which indicates the statistical significance of the differences between the introspectiveness indices in the experimental and control groups.

In the course of the research work to study the level of introspective skills of university students, the following results were obtained.

One can state that the process of introspectiveness development is possible with the implementation of a specially designed model with observance of the following psychological and pedagogical conditions: individualization of the content of education - through the creation by students of their own educational route, planning joint activities in a pair, in a small group and a group; self-organization of educational dialogue with other students.

## Conclusion

As a result of the conducted empirical research, the following conclusions were formulated:

1. In the course of the study, it was substantiated that the success of developing students' introspectiveness is ensured by the created psychological and pedagogical conditions: the use of active learning methods, the use of techniques for the formation of self-reflection skills.

2. At the stage of the ascertaining experiment, the levels of students' introspectiveness were revealed. The results of the ascertaining experiment convincingly demonstrated the need to organize special activities to develop students' introspectiveness.

3. An introspectiveness development model as a personality trait of a future professional has been developed.

4. The results of the implementation of the educational university students experiment confirmed the effectiveness of the conditions created by us, directed at developing university students' introspectiveness.

5. The obtained data of this study create opportunities for further development of the problem in the context of organizing lectures in the learning process for students of different courses and specialization types..

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