Abstract

This article discusses the different styles of professional activity of a teacher of higher education of a pedagogical profile. The purpose of the study: to develop the basic characteristics of the styles of professional activity of teachers in the humanitarian, natural sciences and physical education and sports areas of teacher education and experimentally prove the effectiveness of their implementation in the process of interaction “teacher-student”. The obtained statistical data in the study prove the need for differentiation of styles of professional activity for students of various training profiles of the pedagogical institute. Based on the style of the teacher’s professional activity and the direction of the student’s pedagogical training, a reliably

Аннотация

В данной статье рассмотрены различные стили профессиональной деятельности преподавателя высшего образования педагогического профиля. Цель исследования: разработать основные характеристики стилей профессиональной деятельности преподавателей на гуманитарном, естественнонаучном и физкультурно-спортивном направлениях педагогического образования и экспериментально доказать эффективность их реализации в процессе взаимодействия «преподаватель-студент». Полученные статистические данные в исследовании, доказывают необходимость дифференциации стилей профессиональной

126 Glazov State Pedagogical Institute, Glazov, Russia
127 Siberian Federal University, Krasnoyarsk, Russia
128 Krasnoyarsk State Medical University named after professor V.F. Voyno-Yasenetsky, Krasnoyarsk, Russia
129 Siberian Law Institute of the Ministry of Internal Affairs of the Russian Federation, Krasnoyarsk, Russia
130 Reshetnev Siberian State University of Science and Technology, Krasnoyarsk, Russia
131 Krasnoyarsk State Pedagogical University of V.P. Astafyev, Krasnoyarsk, Russia
132 National Research Irkutsk State Technical University, Irkutsk, Russia
positive result was revealed in increasing the academic performance of students of the pedagogical institute.

Keywords: Styles of professional activity, teacher, student, institute, pedagogy.

Introduction

In the constantly updated system of higher education of the Russian Federation, modernization in the implementation of the pedagogical system “teacher-student” is beginning to acquire relevance (Merenkov & Sushchenko, 2016). The need to update the theoretical and methodological views and practical actions to build a system for the effective functioning of all parts of the higher education system from admission to the employment of students, from the professional activities of a teacher to a professor is determined by the current situation in the European educational space (Nagovitsyn et al., 2019). The processes of integration and globalization taking place in the state and social life, which have also affected the sphere of higher education, create real prerequisites for the development of comparable assessment criteria and methodologies and, on its basis, the increase in the educational and scientific activities of students and faculty of universities (Yale, 2019). The search for the mechanisms of this process tested by world practice is updated by the fact that all models of interaction in the teacher-student system include the level of scientific and educational preparedness of the teaching staff and, in general, an assessment of the quality of vocational training of an educational institution (Edwards et al., 2019; Tang & Harrison, 2011).

It should be noted that the assessment of the activities of teachers in the accreditation procedure of universities is accepted practically throughout the world, but its content and form in different countries are different and depend on national characteristics in education, historical traditions and socio-cultural conditions (Edwards et al., 2019; Yale, 2018). In this aspect, the positive experience of high-rated Russian and foreign educational institutions of higher education is especially noteworthy, which in turn shows that their success largely depends on the orientation toward individualization and interactivity of teacher-student interaction in the implementation of professional training (Easterday et al., 2017; Nagovitsyn et al., 2018). The scientific and methodological support of this process that has been poorly developed to date, insufficient orientation on the provisions of a personality-oriented approach to effective modeling of the relationship between the student and the student leads to the actualization of the following problem (Merenkov & Sushchenko, 2016; Nagovitsyn et al., 2019). The search for approaches to improving the efficiency of the educational process at the university through an analysis of the psychological and pedagogical characteristics of the teaching staff and their individual directions to the student learning process.

Literature Review

An analysis of special scientific and methodological literature, including Russian and foreign sources, revealed that the properties of the general type of the nervous system (strength, poise, mobility of the nervous processes) are essential factors in the activities of the faculty in labor, educational and physical-sports activities (Fresko, 1996; Yale, 2018). Typological properties of the nervous system, as shown by the results of special studies, largely determine not only the qualitative uniqueness of the activity, but under certain conditions and further the level of students’ achievements in educational and extracurricular activities at the university.

The professional individual style of the teacher's activity is one of the ways of interaction between participants in the educational process at the university to the same requirements of teaching activity (Martinez et al., 2019). The development of an individual style involves conscious choice, planning of modes of action, and periodic self-
monitoring (Smith, 2000). This is possible only when the teacher actively chooses for himself the best methods and forms that help him achieve the highest results, has an active lifestyle for various types of teaching activities (Nagovitsyn et al., 2019; Sansone et al., 2018).

In scientific works, various psychological and pedagogical orientations in the professional activities of teachers in various sciences are studied in detail (Nagovitsyn et al., 2019; Yale, 2018). As shown by a theoretical and comparative analysis of the practice, teachers with an active attitude to professional activity and a high level of professional skill have clearly expressed stable features of the activity that were manifested in academic classes in the audience, in all sections of the program, when solving various pedagogical problems (Tang & Harrison, 2011). In turn, representatives of this contingent with a less active position towards professional activity and a different degree of professional skill have significant features of the relationship in the “teacher-student” model (Yale, 2019).

Analytical reports and specialized literature identify indicators, levels, and criteria for analyzing the degree of effectiveness of the system of relationships between subjects and objects of educational relations (Edwards et al., 2019; Yale, 2018). Nevertheless, a special analysis of the comparative features of the faculty teaching non-humanitarian, natural-scientific and physical-sports directions of pedagogical education requires further theoretical and experimental research.

Thus, the aim of the study: to develop the basic characteristics of the styles of professional activity of teachers in the humanitarian, natural-scientific and physical-sports areas of teacher education and to experimentally prove the effectiveness of their implementation in the process of interaction “teacher-student”.

Materials and Methods

The study used psychological and pedagogical technologies based on theoretical and methodological principles for the implementation of the effectiveness of training based on a personality-oriented approach (Martinez et al., 2019). For the study, a systematic approach was applied as a methodological justification, which is based on the principles of integrity, stability, controllability and focus. The implementation of which provides a higher quality level through the introduction of new personality-oriented technologies in assessing the quality of education in the relationship:

- with a competency-based approach based on a focus on continuous improvement of student quality and satisfaction, objectivity and focus of assessment (Nagovitsyn et al., 2019; Sansone et al., 2018);
- with an active approach in terms of the principles of scientificness, perspective, responsiveness, motivation, adaptability and evolutionality (Smith, 2000);
- with a qualimetric approach in terms of the principles of uniformity, cyclicity, accessibility and accuracy of assessment (Edwards et al., 2019);
- with an innovative technological approach in the direction of optimality, manufacturability, informational content and creativity (Tang & Harrison, 2011).

The solution of research problems was provided by a set of complementary methods: theoretical methods for the analysis of domestic and foreign pedagogical theory, practice and experience on the research problem in the synergetic model of “student-teacher”. General scientific methods such as classification, modeling, comparison, comparison and generalization.

Based on a comparative analysis of the practice of teaching various subjects at the pedagogical institute and the observation method, the key features of the pedagogical activity of the pedagogical activity of teachers were identified (Martinez et al., 2019). Its individual comparison with the type of teachers’ nervous system showed that three main styles of professional activity of a teacher of a higher educational institution should be distinguished, which are caused by various combinations of the properties of the nervous system (Tang & Harrison, 2011). They received the names: leadership (based on a strong mobile type of the nervous system), mentoring (based on a strong inert type of the nervous system), tutor (based on a weak type of nervous system). These styles differ from each other in terms of severity and predominance of various structural components of activity: constructive, organizational and communicative.

The leadership style of the teacher’s professional activity is characterized by the predominance of organizational and communicative components (Sansone et al., 2018). These teachers are very active, which leads to a large number of...
executive actions. Their mental plan of upcoming actions, as a rule, has a predominantly strict and systemic character (Nagovitsyn et al., 2019). In the process of a lecture or a seminar, he, in the course of it, is significantly detailed. Teachers with this style of activity are mobile and can easily be rearranged during the lesson, depending on the state of students, the degree to which they learn motor actions (Kudryavtsev et al., 2018; Osipov et al., 2018). They are impromptu, always cheerful, optimistic, cheerful (Yale, 2018). They achieve success due to perfectly organized communication and interactivity, as well as to high physical activity. Distinctive features of this style of professional activity of the teacher is the ability to carry out the brevity and conciseness of the lesson plan (Edwards et al., 2019). Of particular note is the use of various forms and means of communication with students (humor, joke, metaphor, etc.).

For the mentoring style of the professional activity of the teacher of any academic subject in higher education, the predominant development of constructive and organizational components is characteristic (Easterday et al., 2017). These mentors give leading importance to preliminarily pondering a lecture or seminar and the fragmented use of information technology. Prepare for the academic lesson in advance and carefully, spending a lot of time on it (Nagovitsyn et al., 2018). Teachers with this style of professional activity are not inclined to frequently change theoretical and practical tasks and seek to refine the details of communication and interactivity technology (Tang & Harrison, 2011). However, they are not able to quickly rebuild during the course of the lesson, depending on the readiness of students, the degree of mastery of their motor actions, they are not oriented to quickly switch from one educational module to another (Fresko, 1996). Strictly monitor the quality of the assignment, instructions and instructions of the teacher (Smith, 2000).

The prevailing constructive and communicative components (Yale, 2019) are characteristic of the tutorial style of professional activity of a higher education teacher (Zayed et al., 2019). The preliminary orientation and training of this contingent of students is extended and may be too long. Their thought plan of action is very detailed, always differentiated to the details of its implementation, only minor changes are made in the process of activity (Yale, 2018). These teachers try to introduce innovative technologies, but most often they use traditional and proven methods (Martinez et al., 2019; Osipov et al., 2018). A large number of business contacts with students and the introduction of interactive technologies throughout the lesson is explained by the increased responsibility of these tutors and the desire to explain, help each student to correct a mistake, indicate the reasons for its occurrence (Smith, 2000). They tend to conduct classes in traditional and calm working conditions, a violation of the familiar environment or excessive activity, adversely affect further classes (Yermakova & Podolski, 2019).

The experimental study involved teachers (n=9) and students (n=316) of the Glazov State Pedagogical Institute. The teacher sample included three teachers with a predominant leadership style of professional activity, three teachers with a predominant mentoring style of professional activity, and three teachers with a prevailing tutorial style of professional activity. In turn, each group, differentiated by the style of professional activity, includes teachers working in the humanitarian, natural-scientific and physical-sports areas of teacher education. All teachers involved in the experimental study have the degree of doctor or candidate of science.

Students participating in the experiment studied at the 4-5 year undergraduate courses in the fields of "Pedagogical education (4 years of study)" and "Pedagogical education (bachelor with a term of study of 5 years)."

The experimental work was carried out from 2017 to 2019 based on the analysis of scientific literature and federal standards for higher education, the collection of official information, sociological and comparative methods, questionnaires, interviews, modeling, analysis and the formulation of relevant conclusions. During this period, the academic data of all students in the experimental sample were analyzed in two directions: average grades for all academic subjects from 1-3 courses and average grades for term papers for 4-5 courses (3 works). Teachers from the experimental sample led the coursework of students participating in the experiment.

Statistical analysis: Processing the results of the study was carried out using the statistical program SPSS Statistics 20. The significance of differences in the results was determined using Chi-square (X²) at p<0.05. Mathematical and statistical processing was carried out between the indicators of all experimental groups for each indicator proposed in the study. The choice of this criterion for mathematical and statistical processing is determined by the following
characteristics: it allows you to compare distributions regardless of whether they are normally distributed or not, and also regardless of the different number of respondents in focus groups. Application of the criterion is possible when the results of focus groups according to the state of the indicator being studied are distributed into more than two categories, in our case (high, average, low).

Results

In order to identify the most acceptable and most suitable for the modern stage of the implementation of the educational process of the style of professional activity of a teacher of a higher school in the conditions of a pedagogical institute, average data on the academic performance of students in subjects (n=32±3) and on average for all term papers (n=3) are graphically presented in the tables. In Tab. 1, presents the data of students in humanitarian areas of teacher education (n=125). In Tab. 2, The data of students of the natural sciences in teacher education are reflected (n=81). In Tab. 3, presents the data of students of physical education and sports areas (n=110). In turn, each experimental sample of students was differentiated into three experimental groups: EG1 - students with average academic performance from 5 to 4.5 (inclusive), EG2 - students with average academic performance from 4.5 to 4 (inclusive), EG3 - students with average academic performance from 4 to 3.5

Table 1. The results of students of humanitarian areas of teacher education (n=125):

<table>
<thead>
<tr>
<th>Group</th>
<th>Leadership style</th>
<th>Mentoring style</th>
<th>Tutorial style</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Academic subjects</td>
<td>Coursework</td>
<td>Academic subjects</td>
</tr>
<tr>
<td>EG1</td>
<td>15</td>
<td>6</td>
<td>13</td>
</tr>
<tr>
<td>EG2</td>
<td>16</td>
<td>21</td>
<td>25</td>
</tr>
<tr>
<td>EG3</td>
<td>8</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>Number of students</td>
<td>n=39</td>
<td>n=44</td>
<td>n=42</td>
</tr>
<tr>
<td>Math statistics</td>
<td>p&lt;0.05</td>
<td>p&gt;0.05</td>
<td>p&gt;0.05</td>
</tr>
</tbody>
</table>

Table 2. The results of students of natural sciences in teacher education (n=81):

<table>
<thead>
<tr>
<th>Group</th>
<th>Leadership style</th>
<th>Mentoring style</th>
<th>Tutorial style</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Academic subjects</td>
<td>Coursework</td>
<td>Academic subjects</td>
</tr>
<tr>
<td>EG1</td>
<td>11</td>
<td>17</td>
<td>9</td>
</tr>
<tr>
<td>EG2</td>
<td>20</td>
<td>18</td>
<td>15</td>
</tr>
<tr>
<td>EG3</td>
<td>4</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Number of students</td>
<td>n=35</td>
<td>n=30</td>
<td>n=16</td>
</tr>
<tr>
<td>Math statistics</td>
<td>p&lt;0.05</td>
<td>p&gt;0.05</td>
<td>p&gt;0.05</td>
</tr>
</tbody>
</table>

Table 3. The results of students of physical education and sports areas of teacher education (n=110):

<table>
<thead>
<tr>
<th>Group</th>
<th>Leadership style</th>
<th>Mentoring style</th>
<th>Tutorial style</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Academic subjects</td>
<td>Coursework</td>
<td>Academic subjects</td>
</tr>
<tr>
<td>EG1</td>
<td>12</td>
<td>9</td>
<td>11</td>
</tr>
<tr>
<td>EG2</td>
<td>17</td>
<td>17</td>
<td>24</td>
</tr>
<tr>
<td>EG3</td>
<td>10</td>
<td>13</td>
<td>9</td>
</tr>
<tr>
<td>Number of students</td>
<td>n=39</td>
<td>n=44</td>
<td>n=27</td>
</tr>
<tr>
<td>Math statistics</td>
<td>p&gt;0.05</td>
<td>p&gt;0.05</td>
<td>p&lt;0.05</td>
</tr>
</tbody>
</table>
Discussion

The results obtained are consistent with a number of research works that prove that the predominance of organizational and communicative components among teachers affects the effectiveness of the implementation of student training (Edwards et al., 2019; Sansone et al., 2018). With teaching activity, not only academic performance among students increases, but also the indicators of research and design activities of high school students (Yale, 2018). Students under the guidance of teachers with a dominant leadership style of professional activity activate reflection and thought activity (Kudryavtsev et al., 2018). Nevertheless, as the present study showed, the leadership of students in humanitarian areas of teacher education by teachers with a leadership style of professional activity has the opposite result (p<0.05). Students of the profiles "Primary Education" and "Further Education" significantly deteriorate the effectiveness of work on course projects when interacting with a teacher with a leadership style of professional activity. Compared with humanitarian students, students of the natural sciences "Mathematics" and "Biology" under leadership type leaders significantly increased (p<0.05) the effectiveness of defense and the quality of term paper.

The study confirms studies proving that the mentoring style of professional activity of a higher education teacher is optimal and average for the implementation of training for a future teacher (Tang & Harrison, 2011). Teachers who try to introduce innovative methods in the learning process (Smith, 2000), but most often use traditional and proven technologies do not cause a significant effect (p>0.05) on the training of future teachers (Yale, 2018). Calm and measured conditions of interaction between students and teachers make it possible to meet the academic performance of both academic subjects and writing term papers by students of all subject areas (Yermakova & Podolski, 2019; Fresko, 1996).

Tutorial style of professional activity of a teacher of any academic subject in higher education, as experimentally proven by pedagogical research, is the most relevant in the implementation of teacher training (Yale, 2019). Teachers-tutors place a special emphasis on the need for action “think first, then do” (Martinez et al., 2019) in the implementation of educational and extracurricular activities of students. Such teachers orient their students to reflective preparation for each seminar and each paragraph when writing a term paper. This study complements the experiments performed in a number of scientific papers, that mobility during training is especially relevant in the implementation of educational and research activities (Edwards et al., 2019; Yale, 2018). Nevertheless, according to the results of our research, the tutorial style of the teacher’s professional activity in some cases has a negative effect. In particular, for students in the profiles of "Physical Culture", "Sports". This style worsens the discipline of these students and their reliability (p<0.05) worsens performance in writing, designing and defending term paper.

Limitations

The presented scientific work was limited to a sample of students of the State State Pedagogical Institute who entered the institute at the faculty of pedagogical and art education. In this regard, the number of study participants in each experimental sample was heterogeneous in size. The sample obtained does not make it possible to cover the entire target audience, since the study was conducted at only one institute. In accordance with this, the results can be determined as preliminary, and for further more detailed analysis it is necessary to conduct a comparative analysis of several higher educational institutions of the region and the federal district. A large sample of the same size will provide more diverse information on this subject.

Conclusion

Thus, in an experimental study, the author's vision on the systematization and classification of various characteristics of the styles of professional activity of teachers is presented. Reliable positive and negative impacts of various styles of professional activity of teachers on the effectiveness of writing and term papers by students of humanitarian, natural-scientific and physical-sports directions of pedagogical education are revealed.

The results of the study, focused on the formation of academic significance in the implementation of educational and extracurricular activities of certain areas in the interaction of "teacher-student", have proved that the level of motivation of students to research activities reliably depends on the style of professional activity of the teacher.

The obtained statistics in the study prove the need for differentiation of the style of
professional activity for students of various training profiles of the pedagogical institute. Based on the style of the teacher’s professional activity and the direction of the student’s pedagogical training, a reliably positive result is possible in increasing the academic performance of students of the pedagogical institute.

A fundamentally new result is obtained in the work in the planning strategy for increasing academic performance indicators in the subject and course cycles of teaching students in the humanities, science, physical education and sports fields of pedagogical education. New scientific data on the processes of increasing the research activities of students and the patterns that exist in the pedagogical science under study on this issue are revealed. What ultimately, may be one of the key conditions for improving the quality indicators of professional training and the overall effectiveness of the training system for future teachers.

In practical terms, the further implementation of the author’s recommendations on the differentiation of interacting “student-teacher” in all educational directions in the region will be significantly more effective in educational activities. Namely, without increasing budgetary funding and material social investments, it is statistically significant to reduce the shortage of “quality” teaching staff in educational, additional, preschool, physical education, sports, and creative organizations.

References


Fresko, B. (1996). Effects of Tutor-Tutee Intimacy, Tutoring Conditions and Tutor Background on College Student Tutor Satisfaction. Educational Studies, 22 (2), 147-164. DOI: 10.1080/030556960220202


Smith, M. E. (2000). The Role of the Tutor in Initial Teacher Education, Mentoring & Tutoring: Partnership in Learning, 8 (2), 137-144. DOI: 10.1080/713685520


