The paper deals with the issue of social intelligence as a psychological characteristic of teacher’s personality, which forms the basis of his/her professionally significant qualities. Social intelligence is considered as integral intellectual ability, which ensures the success of social adaptation, the effectiveness of pedagogical interaction, includes the ability to cognize and predict the behavior of the educational process participants, understand and manage their own emotions and emotions of others. The cognitive, empathic and communicative-organizational criteria, which are interrelated and interdependent components of the structure of social intelligence, have been distinguished. The diagnostic toolkit is presented, according to which the results of experimental research on the development of teachers’ social intelligence, are revealed.

Keywords: social intelligence, teachers, empathy, diagnostics, complex program.

Introduction

Fundamental changes taking place today in the domestic system of education require modern teachers easily adapt to new conditions, be aware of their own communicative strategies and their impact on other people, be effective in communication, adequate and flexible in interaction with the participants of the educational process, which in turn should be based on mutual respect, trust, and partnership. In this context, the issue of social intelligence as a psychological characteristic of teacher’s personality, which forms the basis of his/her professionally significant qualities, becomes relevant. It is social intelligence of a teacher that determines the processes of social cognition, promotes psychological endurance and stress resistance, helps to predict the development of interpersonal relationships, exacerbates pedagogical intuition, predictability, ensures the effectiveness of subject-subject interaction, the success of professional self-fulfillment.

Social intelligence (SI) as a psychological phenomenon in scientific considerations is considered in different ways: as an ability that ensures effective interpersonal interaction and successful social adaptation (G. Allport, 1937), (E. Thorndike, 1920), the system of intellectual abilities necessary in social behavior (J. Gilford, 1967), interpersonal interaction (K. Albuhanova-Slavskaya, 1994) [2], a component of social skills and competence (D. Ushakov, 2004), a means of understanding people’s actions, speech and non-verbal signs (O. Mikhailova, 1996), a complex dynamic structure of the individual which is a set of abilities for the cognition of social phenomena and determines the success of social adaptation and interaction (N. Ruda, 2012), the ability to ensure the success of social interaction between people in different spheres of activity (M. Akimov, V. Kozlov, N. Ferens, 1999), (V. Kunitsina, 2003), a system of professional qualities of specialists of social and communicative sphere (O. Vlasova, 2005), etc.

According to the specifics of our research, modern scientific developments, which cover the issue of social intelligence of specialists in the socionomic sphere, in particular teachers, its influence on pedagogical activity, are important as well.

According to the findings of Ya. Kaplunenko, social intelligence is an integral social and personal cognitive ability of a person, which ensures the success of social adaptation and the effectiveness of interpersonal interaction, includes the ability for cognition of behavior and comprehensive analysis of communication situations; the ability to understand and manage their own emotions and emotions of other people; the ability to implement organizational and communicative activities. The researcher proves that the structure of social intelligence is not
steady, is developed throughout life and represents a complex integral system of abilities, which consists of cognitive, emotional and behavioral components. The general ability for the cognition of the behavior of other people, verbal and nonverbal expression, the ability for comprehensive analysis of situations of communication is growing and formed with the experience of professional activity, and is a professionally important quality of specialists in sociocultural professions (Kaplunenko, 2016).

The research studies of S. Kharchenko contribute to a more profound examination of this phenomenon. In particular, the scientist has revealed that people with a higher level of social intelligence have better self-regulation, develop self-control, they are more confident, choose more constructive and original ways of solving professional tasks connected with communication, and a higher level of professional competence (Kharchenko, 2017).

Investigating the social intelligence of representatives of communication-related professions, L. Liakhovets defines it as a special ability for self-cognition, understanding other people, their relationships, and also the ability to predict the course of interpersonal events based on individual mental processes, an effective response to the personal and socio-psychological context of situations of interaction and social experience. The structure of social intelligence consists of cognitive, emotional and communicative-organizational components that provide in their totality an adequate analysis and forecasting of the development of a situation of social interaction (Liakhovets, 2009).

S. Rudenko has experimentally proved (Rudenko, 2007) that social intelligence is a factor that positively influences a whole range of aspects of teaching – support of the creative atmosphere at the lesson by a teacher; teacher-student interaction; the teacher’s knowledge of the subject and skills of written and oral explanation of the material; the choice of a constructive, original solution of a pedagogical situation by a teacher; use of the general plan for solving pedagogical situations; application of means of reducing tension, for example, jokes, humor; forecasting further development of the situation; self-esteem level.

Investigating teachers’ social intelligence, E. Ivashkevych proposed a structure which contains the declarative and operational (procedural) knowledge that an individual uses in real life to interpret events, make plans and predict both actions of everyday life and professional situations. Based on the peculiarities of teaching activities, the researcher in the social intelligence structure distinguishes the following three substructures: cognitive (a set of persistent knowledge, assessments, rules of interpretation of events, behavior of people, their relationships on the basis of the system of interpretations on the microstructural and macrostructural levels), mnemonic (the ability to interpret phenomena, events of life, their own and other people’s behavior as the subject of these events), empathy (a behavior pattern of a teacher, which he/she chooses as a priority, which is expected from the surrounding subjects; value interpretative complex in one’s attitude to the world, the possibility of using the mechanisms of anticipation in solving various problems of professional and social life, etc.) (Ivashkevych, 2017).

Considering the terminological uncertainty of social intelligence, we interpret this phenomenon as an integral intellectual ability of teachers, which ensures the success of social adaptation, the effectiveness of pedagogical interaction and professional self-fulfillment, includes the ability to cognize and predict the behavior of the educational process participants, understand and manage their own and other people’s emotions, implement communicative and organizational activities.

**Aim and Tasks**

The paper aims to examine teachers’ social intelligence.

The following tasks are set:

1) to distinguish the criteria and indicators of social intelligence.

2) to present the author’s comprehensive program for the development of teachers’ social intelligence.

3) to present the results of an experimental study on the development of teachers’ social intelligence.

**Research Methods**

In the process of the research we distinguished cognitive, empathic and communicative-organizational criteria, which are interdependent and interconnected components of the structure of teachers’ social intelligence.

The cognitive criterion characterizes the level of ability to predict the consequences of behavior of participants in the interaction in a particular situation, logical generalization, the allocation of common essential features in various nonverbal reactions of a person, understand the changes in verbal reactions depending on the context of a situation, the logics of the development of the interaction situation.

The empathy criterion shows the ability to understand and control emotions, the inner world of other people, emotional sensitivity, empathic perception.

The communicative-organizational criterion is characterized by openness in communication, sociability, etc.

Taking into account the criteria and levels of the maturity of indicators, we have distinguished three levels of the development of teachers’ social intelligence: high, medium, and low.

The study involved 97 teachers of secondary schools in the city of Odessa and the region, with the experience of teaching from 8 to 35 years. The respondents were randomly divided into two groups: experimental (EG) and control (CG).

For the assessment of the cognitive criterion of social intelligence, we used Social Intelligence Test by J. Hiltord and M. Sullivan, adapted by O. Mikhailova (Mikhailova, 1996), which can measure both the general level of social intelligence and the components of the ability to
understand behavior. The research methodology of social intelligence consists of 4 subtests: subtest 1 “Stories with Completion”, subtest 2 “Expression Groups”, subtest 3 “Verbal Expression”, subtest 4 “History with Addition”. The subtests help to evaluate four abilities in the structure of social intelligence: knowledge of classes, systems, transformation of behavioral results. The two subtests also can assess the ability to understand elements and attitudes of behavior. Three subtests are written on verbal stimulant material and one subtest is verbal. The stimulating material is a set of four test notebooks. Each subtest has 12-15 tasks. The method belongs to the category of objective tests. The processing of results is carried out by counting the answers to certain questions provided in the questionnaire. The text of the questionnaire contains 36 statements expressing the attitude towards parents, animals, the elder-
y, teachers, students. The obtained results have shown that most of the respondents do not manifest emotional sensitivity, empathic perception, have certain difficulties in understanding and managing emotions, understanding the inner world of another person. This makes it difficult to create an atmosphere of openness and trust, organize the interaction of the educational process participants on a partnership basis.

Fig. 1 shows that most of the respondents had the medium level of social intelligence - 65% of the EG and 63.8% of the CG, the low level was found in 20% of the respondents of the EG and 19.2% of the CG, and the high level of social intelligence was characteristic of 15% of EG students and 17% of CG ones. We can assume that most teachers of both groups do not always successfully interact, do not seek psychological closeness in communi-
cation, have some difficulties in understanding others, predicting behavior, events, intentions of participants in the educational process. They have insufficient interest in self-cognition and insufficient ability for reflection.

The results of the diagnostics of the empathy criterion are presented in the distribution diagram of the respondents according to the levels of its manifestation in Fig. 2.

Fig. 2 shows that the high level of empathy was found in 15% of the EG teachers and 17% of the CG teachers, the low level – in 22.5% of the EG and 21.3% of CG students. Most of the respondents have the medium level of empathy – 62.5% of the EG respondents and 61.7% of the CG students. The obtained results have shown that most of the respondents do not manifest emotional sensitivity, empathic perception, have certain difficulties in understanding and managing emotions, understanding the inner world of another person. This makes it difficult to create an atmosphere of openness and trust, organize the interaction of the educational process participants on a partnership basis.
According to the results of the Communicative and Organizational Skills Inventory, the following results were obtained (see Fig. 3): the medium level of organizational and communicative skills (organizational skills – 52.5% and 55.3%, communicative skills – 55% and 61.7%), the low level – organizational skills – 22.5% and 15%, communicative skills – 15% and 12.8%), high level - organizational skills – 20% and 29.7%, communicative skills – 25% and 25.5%.

The analysis of the results has shown that most of the respondents of both groups have an average level of sociability, do not always show openness in communication, cannot effectively influence the participants of the educational process, which decreases the effectiveness of pedagogical interaction.

Therefore, the results obtained became the basis for the development and implementation of a comprehensive program for the development of teachers’ social intelligence.

The Essence of the Suggested Program for Social Intelligence Development

The comprehensive program for the development of social intelligence involves diagnostic, practical and reflective units, implemented through group and individual forms of work. The content of the program included: the method of psychosocial training, workshops, psychodiagnostics, personal and professional projects, trainings on the development of social intelligence, counseling, presentation of personal achievements, diaries of personal and professional growth, self-study.

The method of active psychosocial training (by T. Yatsenko) promotes harmonization of personality, increase of the need for self-development and responsibility for it and for realization of potential opportunities (Yatsenko, et. al., 2002). During classes with teachers, discussions, psycho-gymnastic exercises, role and business games, case-methods, method of projects, exercises on self-knowledge and self-evaluation, non-verbal receptions, etc. were used. It contributed to the development of their social-perceptual abilities, susceptibility to feedback, openness and sincerity in communication, sensitivity to others, the ability to predict the consequences of the behavior of interaction participants, greater autonomy, initiative, self-confidence, etc.

During workshops, the teachers shared their own pedagogical experience, presented personal achievements. In the process of joint activity, they mastered new tools, methods and techniques for developing personal and professional qualities of social intelligence.

Self-study played an important role in the program,
where a teacher takes an active position in acquiring knowledge, mastering certain competences, developing personal and professional qualities of social intelligence. The respondents were offered to review the following issues with the help of scientific and psychological literature and Internet sources: social intelligence as a factor in the organization of pedagogical interaction on a partner basis, the influence of social intelligence on the professional competence of the teacher. Such work contributed to a stronger assimilation and deepening of knowledge of teachers on the development of social intelligence.

They also were offered to keep reflexive diaries, where they could describe the selected vectors of personal and professional growth, self-correction and self-development, self-examination, self-observation, their thoughts on overcoming certain problems and difficulties on the way to self-improvement.

Within the framework of the social intelligence development program, psychodiagnostic was used to build psychological portraits of teachers’ personalities and to preserve their psychological health. Psychodiagnostic was used not only to assess the available personal qualities, but also to search for personal resources for the development of social intelligence.

According to the results of the diagnostics, the teachers created personal and professional projects of changes aimed at the reconstruction of their ideas about external and internal reality, rethinking personal and professional experience, the development of personal qualities of social intelligence. It should be noted that self-projection was considered as a process of enrichment and transformation of the semantic space of personality, which occurs as a result of understanding and interpreting individual experience, which is generalized on the basis of internal intentions of the individual and structured under the influence of human goals, motives and intentions (Chepelieva, Rudnytska, 2017). Presentations of personal and professional projects of the teachers and the results of their successful implementation took place at the meeting of the creative group of teachers.

Psychological counseling is considered to be a widespread form of psychological assistance in identifying problems, analyzing and promoting their solution. Individual psychological counseling of teachers is aimed at solving problems of a personal nature, overcoming difficulties of their professional lives, professional conflicts, developing professional psychological potential, overcoming psychological barriers to communication, etc.

The training on the development of teachers’ social intelligence was of great importance in the process of the program implementation. Its purpose was to promote the development of professional competences of teachers for effective pedagogical interaction, actualization of their needs for self-improvement, formation of motivation for further self-development. The training covered three topics (3 hours were allocated for every of them): Teachers’ Social Intelligence, Interaction on Partnership Basis, Social Creativity of Teaching. According to the topic, mini-lectures, exercises, games, creative tasks, practical demonstrations, discussions, presentations were used. It should be noted that a new small group was formed for every task. Thus, while participating in the training, the teachers were able to interact with all the participants, gaining experience in establishing contacts, quickly engage in the work of the group, objectively assess and respond to various situations of interaction, find fruitful ways of cooperation.

Every training session started with the introduction, which included the setting up for work. Exercises and games were used to create internal freedom of group members, increase attention and thinking, establish contacts with other participants, and a positive atmosphere. These measures allowed to change the psychophysical state of participants, to overcome shyness, indecision, to make them feel natural and safe. Such a beginning of the training course contributed to the activation, improvement of the group’s working capacity.

The main part of the training included a mini-lecture, which contained brief information that revealed the theoretical foundations of the issue. Mini-lectures were accompanied by video presentations, which gave participants the opportunity to understand and remember the information received.

Interactive thematic exercises helped to use knowledge, gain experience, work out concrete actions to develop the ability for self-understanding and effective interaction organization.

It should be noted that interactive thematic exercises increased the interest of participants in a particular issue, promoted their activity, created a positive constructive work atmosphere.

For the formation and development of skills and abilities, the acquisition of practical experience we applied role and business games. With their help, the participants were able to explore their natural behavior, to go beyond the usual behavioral stereotypes and patterns, to master the positions of subject-subject interaction, to work out the actions required in uncertain, atypical situations. Games can imitate situations which can arise in the work of a teacher. It should be noted that the cases were composed by the participants themselves, contained the situations of their practice, were different in terms of complexity and generalization of information.

In the course of the training, we organized discussions where the participants exchanged information and their ideas. It is important that the results of the discussion did not provide a compulsory search for a common position. Different approaches to the same subject or phenomenon, divergence of views shaped respect for other peoples’ opinions, communicative culture, expanded the boundaries of perception, tolerance, etc.

Every lesson was completed with reflection, which was aimed at taking an external position in relation to the situation, understanding one’s own feelings after the...
completion of the training, identifying the expected results, finding out if the purpose of the lesson was achieved.

Thus, the training contributed to the development of teachers’ social intelligence, forming an impulse for them to further self-development and self-improvement.

According to the results of the carried out experimental work, the dynamics of changes in the development of the respondents was revealed. The results of the experimental effect on the development of social intelligence are given in Table 1.1.

**Table 1.1.**

<table>
<thead>
<tr>
<th>Level</th>
<th>EG (n=40)</th>
<th>CG (n=47)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>before</td>
<td>after</td>
</tr>
<tr>
<td></td>
<td>abs.</td>
<td>%</td>
</tr>
<tr>
<td>High</td>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td>Medium</td>
<td>23</td>
<td>57.5</td>
</tr>
<tr>
<td>Low</td>
<td>9</td>
<td>22.5</td>
</tr>
</tbody>
</table>

The presented experimental results indicate that there are significant positive changes in the EG and almost no changes in the CG. At the initial stage the high level was found in 20% of the EG students, and after – in 40%; the low level – in 22.5% at the beginning and no respondents were found with the low level at the final stage; no significant changes were found according to the average level: before the experiment – 57.5%, after – 60%. The number of CG teachers with the high level has not changed – before and after the experiment – 21.3%, minor changes have occurred regarding the average and low levels – 59.5% and 61.7% and 19.2% and 17%, respectively.

As a result of the statistical analysis of the comparison of the results of the EG and CG at the final stage of the experiment an empirical value $\chi^2 = 46.72$ was found, which is significantly greater than the critical value. The comparison of EG at the initial stage and after the experiment is $\chi^2 = 59.74$, which is also more than the critical value. The empirical value of the criterion for such a comparison in the CG is 0.12, which is significantly lower than the critical value. Consequently, the reliability of the differences between the characteristics of the EG and the CG concerning the dynamics of the development of the teachers’ social intelligence is 95%, which confirms the statistical significance of the results.

**Conclusions**

1. We have distinguished cognitive, empathic and communicative-organizational criteria and indicators of the development of teachers’ social intelligence.
2. We suggested a comprehensive program aimed at the development of teachers’ social intelligence, which consisted of diagnostic, practical and reflective units, which was implemented through group and individual forms of work. The content of the program included: a method of socio-psychological training, a training on the development of social intelligence, workshops, counseling, psychodiagnosis, presentation of personal achievements, keeping diaries of personal and professional growth, personal and professional projects, self-study.
3. The carried out experimental research has revealed positive changes that have occurred in the development of social intelligence of the teachers in the experimental group. They are reliable, statistically significant and are a result of the implementation of a comprehensive program, which proves its efficiency.

Future research studies in this direction are going to cover the examination of social intelligence of teachers with different pedagogical experience, the relationship of social intelligence with innovative pedagogical activities and the effectiveness of pedagogical interaction.

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ДОСЛІДЖЕННЯ СОЦІАЛЬНОГО ІНТЕЛЕКТУ ПЕДАГОГІВ

У статті актуалізується проблема соціального інтелекту (СІ) як психологічної характеристики особистості педагога, що становить основу його професійно значущих якостей. Мета полягає у дослідженні розвитку соціального інтелекту педагогів. СІ розглядається як інтегральна інтелектуальна здатність педагогів, яка забезпечує успішність соціальної адаптації, ефективність педагогічної взаємодії та професійної реалізації, включає здатність пізнання і про- гнозування поведінки учасників навчально-виховного процесу, розуміння й управління власними емоціями та емоціями інших, здійснення комунікативно-організаційної діяльності. Визначення когнітивного, емпірійного і комунікативно-організаційного критеріїв, що є взаємоз'язаними та взаємообумовленими складовими структури СІ педагогів. Когнітивний критерій характеризує рівень здатності передбачати наслідки поведінки учасників взаємодії в певній ситуації, логічного узагальнення, виділення загальніх суттєвих ознак у різних невербальних реакціях людини, розуміння змін вербальних реакцій залежно від контексту ситуації, логіку розвитку ситуації взаємодії. Емпірійний критерій виявляє здатність до розуміння й управляння емоціями, внутрішнього світу іншої людини, емоційної чутливості, емпірійного сприйняття. Комунікативно-організаційний критерій характеризується відкритістю у спілкуванні, контактністю, здатністю до ефективної взаємодії. У дослідженні взяли участь 97 педагогів загальноосвітніх шкіл міста Одеси та області, з досвідом педагогічної роботи від 8 до 35 років. Респонденти були розподілені у довільному порядку на дві групи: експериментальна і контрольна. Під час діагностичної стадії, яким виокремлені результати експериментального дослідження з розвитку СІ педагогів. Репрезентована комплексна програма розвитку СІ педагогів, яка складалась з діагностичного, практичного і рефлексійного блоків, реалізовувалася через групові та індивідуальні форми роботи. Зміст програми вміщував: метод соціально-психологічного навчання (АСПН), тренінг з розвитку СІ, майстер-класи, консультації, психологічна, презентація особистісних досягнень, ведення щоденників особистісно-професійного зростання, особистісно-професійний проект, самоосвіту. Експериментальне дослідження виявило зміни, що відбулися у розвитку СІ педагогів в експериментальній групі, вони є достовірними, статистично значущими та відбилися внаслідок впровадження комплексної програми, що є доказом її ефективності.

Ключові слова: соціальний інтелект, педагоги, емпатія, діагностика, комплексна програма.

Submitted on November, 27, 2017