Emotional Competence and Individual Style of Action of Future Teachers of Higher Education in the System of Education for Sustainable Development

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Abstract

The article presents the results of a study of emotional competence and individual style of action of students – future teachers of higher education in the system of education for sustainable development (EDS). The theoretical analysis of the application possibilities of the system (ideas) of EDS is performed. The study highlights a number of competences that are consistent with the components of emotional competence and individual style of action. The study involves 20 students of pedagogical specialties from Almaty, Kazakhstan. The components of emotional competence and individual style of action are investigated using self-assessment questionnaires. The article presents the answer to the question of whether there are stable links between the components of emotional competence and individual style of action as well as draws conclusions on the importance of developing emotional competence in the EDS system.

Keywords: sustainable development, education for sustainability (EfS), students of pedagogical specialities, emotional competence, individual style of action, study engagement, empathy.

The Research in the System of Education for Sustainable Development

To ensure a sustainable, peaceful, prosperous and fair life on the Earth for all people at present and in the future, on 25 September 2015 the UN General Assembly adopted the 2030 Agenda for Sustainable Development that outlines the goals and objectives of a new approach to the organisation of education for sustainable development.

The concept of **sustainable development** refers to the relationship between nature and society; the contradictions of the natural and social environment; the growing needs of man, and the natural, economic, socio-cultural possibilities of the environment to satisfy the needs of a human being. The theories of sustainable development are based on: (1) the ideas of V.I. Vernadsky about the transformation of humanity into a geological

force that can lead to global changes in the biosphere and destroy the very foundations of human life if society does not move to a new stage in its development driven by reason, science of the laws of the interaction of nature and society, their conjugate development without catastrophic consequences (noosphere); and (2) the ideas of N.N. Moiseyev about society as a self-organising, continuously evolving system that is characterised by a regular mismatch between the spiritual and material worlds and the role of ecological culture in resolving this contradiction.

All researchers agree that sustainable development has three interrelated and interdependent components: (1) sustainable social development (equality of people and social justice); (2) economically sustainable development (maintenance of material, human and cultural capital); (3) ecologically sustainable development (people's well-being is ensured by the preservation of raw materials and the environment (Bonnett, 1999; Mazurov, 2005; Education for Sustainable Development in Action, 2010).

At present, the proposed area of sustainable development has a lot of difficulties for its implementation to a full extent. This paradigm is more oriented towards the future and is a dream for humanity. Difficulties are related to the fact that people, in general, are not ready to accept the ideas put forward, because at present even the inhabitants of highly developed countries are more engaged in economic survival rather than personal development and self-improvement. The ideas of the introduction of environmental consciousness are unlikely to elicit a response in the broad masses, since the regulation of production and state resources is in the hands of national, supranational elites and corporations. Theoretically, any person is for not having environmental disasters on the Earth. But not always there are resources and opportunities to influence production activity, for example, of town-forming factories. The ideas of justice and equality of peoples cannot be implemented, since the dominant market world lives on the basis of expansion, capture of resources of less developed countries and peoples. That is why, and due to many other reasons, the ideas of sustainable development are somewhat of theoretical speculation (reasoning) and cannot find a way to practical and concrete implementation. Our world is too heterogeneous, diverse in the social, economic, moral and cultural level.

Moving away from global conditions and problems, one can take a specific area of application of the ideas put forward, where it is possible to begin applying the concept of education for sustainable development. This area lies in the sphere of higher education of students – future teachers.

Education for sustainable development (ESD) at higher education institutions involves the transition from a focused professional education in the environmental, economic, geographic and other spheres to an economically and socially oriented model of learning that involves broad interdisciplinary knowledge based on an integrated approach to the development of society, economy and environment (Sadovnichy & Karasimov, 2006).

At its 57th session (2002), the UN General Assembly, in pursuance of the provisions of Agenda 21, declared the years 2005 to 2014 the decade of education for sustainable development. Resolution 57/254 adopted by the UN General Assembly formulates the key objectives of the Decade: (1) to facilitate the transition to sustainable development; (2) to emphasise the leading role of education in the realisation and understanding of sustainable development; (3) to promote interaction and collaboration among all stake-holders in ESD; (4) to promote the quality of teaching and learning; (5) to develop strategies for implementing and enhancing the effectiveness of ESD at all levels.

To accomplish these objectives, it is proposed to use the following strategies: ESD policy development, comprehensive consultation, partnership development, professional development, support for scientific and methodological research and innovative approaches, information dissemination through information and communication technologies, monitoring and evaluation.

Education for the sake of sustainable development, expanding the concept of environmental education, makes it possible:

- to develop and strengthen the ability of individuals, groups, communities, organisations and countries to have their own judgments and make choice in favour of sustainable development;
- to contribute to changing people's views, giving them the opportunity to make our world safer, healthier and more prosperous, thereby enhancing the quality of life;
- to ensure formation of critical thinking, awareness raising of the population, as well as to expand the possibilities, develop new approaches and concepts for the implementation of sustainable development ideas (Fedorov, Vasiliev, & Blinov, 2012).

In education for the sake of sustainable development, the following learning goals are set:

- to learn to think (formulation of analytical questions, critical and systematic thinking, problem solving, orientation to the future);
- to learn to do (application of knowledge in various life situations, resolution of crises and risks, responsible actions, self-esteem);
- to learn to be independent (self-confidence, self-expression, interpersonal skills, and stress management);
- to learn to live and work together (responsibility, respect for others, cooperation, participation in the democratic process of decision-making, negotiation and consensus-building) (Fedorov, Vasiliev, & Blinov, 2012).

Education for sustainable development aims at creating a new perspective on the habitat through the prism of interrelations among nature, economy and culture, as well as ensuring that these interrelations exist at the local, regional, national and global levels. Thus, the main characteristics of **education for sustainable development** are the following:

- the focus on complex relationships between environmental systems and economic structures;
- the process based on the development and implementation of projects for local communities involving students;
- the opportunity for learners to learn, solving problems, critically analysing diverse points of view;
- the integration of various educational disciplines (mathematics, natural sciences, technology, art), integration of traditional and innovative study programmes (environment, multicultural interaction, globalization);
- the training method through discussion and dialogue, identification and coordination of diverse interests, comprehensive assessment of controversial topics and complex decision making;
- the use of environmentally sound technologies (Fedorov, Vasiliev, & Blinov, 2012).

The solution to this problem is currently being carried out through an intensive search for a new model of education that would be consistent with the goals of future civilization. In 1993, UNESCO established the International Commission on Education for the 21st century (chaired by J. Delors), whose work proceeded from the fact that the main goal of the 21st century education was the survival of humanity (ibid.).

For the first time, the study aimed at generalising the problems of teacher education for sustainability was presented in the article by A. Pipere, et al. (2015) "Developing Research in Teacher Education for Sustainability". The article provides an analysis of research in the field of pedagogical education to ensure sustainable development through publishing the Journal of Teacher Education for Sustainability (JTEFS) from 2005 to 2014. According to the researchers, only 17% of the articles have devoted attention to the issue of pedagogy and training in the sphere of sustainable development during this period of time.

One of the problems associated with this sphere is that most universities dealing with the problem of sustainability are universities that focus on education rather than on research. Strong research universities tend to pay less attention to both education for sustainable development and sustainability, in general (Wals, 2013).

The field of education in the sphere of environmental education and sustainable development has already attempted to identify the explanatory force of this approach. In the case of JTEFS, the members of the ISE (the organisations that founded the JTEFS) have focused their attention on holism in their research and practice, which allowed them to use this approach in the philosophical vocabulary. The implementation of wicked discourse in several theoretical studies suggests that this new theory has a strong potential for educational research for sustainability that needs to be further developed and enriched with compelling empirical evidence; however, it seems that due to some critical moments for this theory, this could take quite a lot of time.

Much less research has been devoted to the study of behavioral change and lifestyle of teachers–pupils, in-service teachers or pupils for purposes of more sustainable choice. The integration of ESD into in-service training has been valued more at the level of local action research than in comparative global research. Youth participation in the sphere of ESD has been studied only in a few articles.

According to A. Pipere, et al. (2015), research in the sphere of teacher education for sustainability requires more multidisciplinary and multicomponent approaches and in-depth multi-institutional studies. Furthermore, to develop this sphere there is a need for more extensive comparative studies, which will provide system-wide and policy-oriented evidence, despite the fact that it is difficult to collect.

Studies in the sphere of sustainable development of future high school teachers suggest a comprehensive, systemic, holistic, and activity approach.

The systemic approach allows integrating and systematising knowledge, eliminating redundancy in the accumulated information, reducing the volume and enhancing the visibility of descriptions, reducing the subjectivity in the interpretation of mental phenomena. It helps identify gaps in knowledge about specific objects, discover their incompleteness, identify objectives of further research, and sometimes forecast the properties of objects, information of which is missing, by extrapolating and interpolating existing data.

The complex approach is inseparable from a holistic approach and complementarity of this approach is now known as wickedness that has already entered studies that are

looking for a more holistic or just holistic research framework to solve contemporary wicked problems (Lewin, 1999; Mitchell, 2009; Morin, 2008; Norman, 2011; Waldrop, 1992; Wells, 2013).

Broader perspective of the framework is considered in terms of a complex approach. Complex processes are non-linear, completely unpredictable. They cannot be solved at once; the humanity is solving them continuously through diverse activities. In the case of a complex approach, the understanding of processes is explained as the development of open, adaptive evolutionary dynamic processes that manifest themselves as fluctuations of the qualitative states which may lead to changes in the quality of the system that is related to changes in the direction of development processes (Fedosejeva et al., 2018).

Goals of holistic pedagogy are as follows:

- As the main goal, the concept of "holistic school" envisages upbringing in the spirit of social inter-personal skills, intelligent and responsible attitude to oneself, surrounding people and nature, the formation of a cultured, free and positive-minded person.
- Specific educational objectives of the holistic school include: the most complete development of the knower, love of truth, flexibility of thinking; arming with knowledge, abilities and skills from the standpoint of the principle of integrity, reflected in thinking, feelings and actions; care for strengthening spiritual and physical health of a person; the harmonious development of the individual, i.e., the equivalent development of athletic, craft, social, artistic, intellectual and ethical abilities; the formation of life-affirming social openness, responsibility and readiness to participate in the creation of a free and democratic system; preparation for life in harmony with nature, development of environmental consciousness, formation of respect and love for life, etc.
- Clarification of links between various facets of human experience: (1) linear thinking and intuition; (2) relation between the mind and the body; (3) relation with objects; (4) relation between a person and society; (5) relation with the Earth; (6) relation with oneself.

At present, public support for implementation of the EDS goals has increased, but the state of society – human relations have remained under the dominant influence of anthropocentrism, egocentrism, and apparent technocentrism. Unfortunately, this is not the only influence that exists in human relationships (Fedosejeva et al., 2018).

The present study examines the obtained results from the standpoint of a holistic approach as consideration of the main holistic focus of the development of components of emotional competence and individual lifestyle. The obtained results show a cross-section of the actual situation of development of one participant of the study and as a whole.

In the pedagogical education, in relation with the increased dynamism of the educational environment, forms of education for sustainable development become increasingly topical: a teacher is obliged to work on their education all their life, and this requires a higher personal and professional development of a teacher. Therefore, emotional competence and individual style of action (ISA) can be viewed as factors in the ESD system. Forms of ESD can be represented by continuing education and non-formal education (self-education).

Emotional Competence as a Development Factor
in the System of Education for Sustainable Development

Emotional competence in the ESD system is one of the main factors of development of professional and personal life of a person. The concept of competence is directly related to the meaning that it characterises. The generalised concept of competence encompasses social meanings that appear and function in society, ensure the normal functioning of a man and the interaction of people with each other in such a society.

Competence is a specific ability, which allows effectively solving typical problems, difficulties that arise in real situations of everyday life, production and social activity. Competences in their conceptual content include knowledge of what and how, i.e., means and methods of interaction (Schevchenko, 2008: 326).

Competence consists of a large number of components or competences, many of which are relatively independent, some components relate more to the cognitive field, and others to emotional; these components can replace one another as components of effective behaviour (Raven, 2002). According to A.G. Bermus: "Competence is system of unity, integrating personal, substantive and instrumental features and components" (Kostrova, 2011).

Competences in the ESD system are the following:

- *Forecasting competence* implies the ability to understand and evaluate several scenarios of the future – possible, probable and desirable; creating one's own vision of the future; the application of the precautionary principle; the evaluation of consequences of actions; the ability to cope with risks and changes.
- *Regulatory competence:* the ability to understand and reflect the norms and values underlying human actions, as well as to discuss goals and objectives in the context of conflicts of interest and compromises, uncertainty of knowledge and contradictions.
- *Strategic competence:* the ability to collectively develop and implement innovative actions that provide additional sustainability at local and higher levels.
- *Cooperation competence:* the ability to learn from others; to understand and respect the needs, prospects and actions of others (empathy); to understand, to show sentiment and to be sensitive to others (empathic leadership); to deal with conflicts in the group; to contribute to the joint resolution of conflicts and problems on the basis of cooperation.
- *Critical thinking competence:* the ability to question norms, practices and opinions; to reflect on one's own values, actions; to take a stand in the discourse of sustainability.
- *Self-awareness competence:* the ability to reflect on one's own role in the local and global communities; to constantly evaluate and further motivate one's own actions; to realise one's own feelings and desires.
- *Integrated competence in problem solving:* the ability to apply different frameworks to solving complex sustainability problems and finding viable, comprehensive and fair solutions that contribute to sustainable development, integrating the competences described above (Education for Sustainable Development Goals, 2017).

Competence is a characteristic that is given to a person as a result of an assessment of how effective their actions are to address certain difficulties or problems that it characterises. The present study examines emotional competence, i.e., the competence associated

with the effective and efficient possession of the emotional sphere of the personality of both one's own and another person. The concept of emotionality defines the essence of manifestation and possession of emotions. In this context, the term "emotion" implies not only the possession of all the basic emotional spectrum that is presented in the scientific literature – seven basic emotions: interest, happiness, sadness, anger, fear, disgust, surprise – but also all the feelings arising from these emotions that also actively influence the state of the person.

At present, the importance of emotions and emotional components (feelings) in the objective format of the process of professionalization and practical professional activity is insufficiently revealed. The importance of emotionality and emotional support to the processes of activity is determined in many pedagogical studies. Indifference, excitement, joy, anxiety, apathy, and boredom are a characteristic of explicit or implicit processes of human activity that affects professional productivity and vitality. From the perspective of modern science, emotions and their various combinations act as an activating means of regulating human actions. L. Festinger, K. Lewin, S. Covey, P. Berger, T. Luckmann identified the conditions and factors of the emergence of emotions of a social nature and their functions in human activity. Works of P.K. Anokhina, S.L. Rubinstein, P.V. Simonova, B.I. Dodonova, V.V. Boyko, V.D. Shadrikova, G.H. Shingarova, V.N. Druzhinina, E.P. Ilyina introduced new approaches to examining the nature of emotions and their influence on human activity.

The concept of emotional competence proposed by I.M. Yusupov and G.V. Yusupova (2009) is used as a methodological foundation of the study.
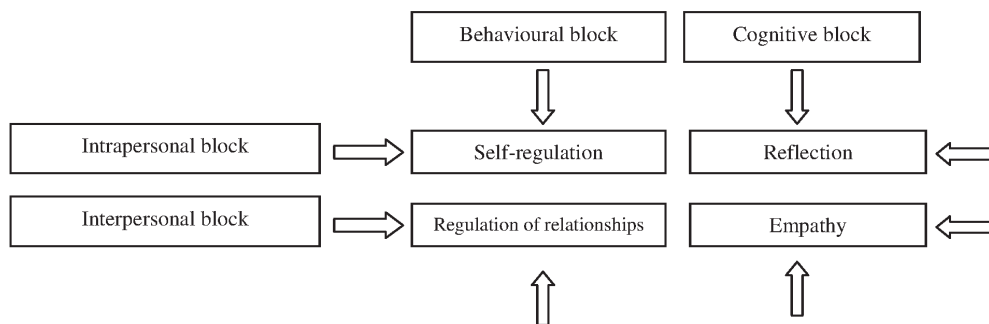

Figure 1. Functional blocks and basic components of emotional competence

The authors study emotional competence as a professionally important quality of a specialist that can be developed in the course of professional activity, and define it as a group of developing abilities for self-regulation and regulation of interpersonal relationships by understanding their own emotions and emotions of others.

Individual Style of Action of Students – Future Teachers

A professional educator always has brilliant uniqueness, individuality that is expressed in their style of action. Concept "style" is used to characterise the identity of an individual, ways of behaviour and action. Style is a stable form of self-determination of a person, a form of expressiveness of action, an acceptable form of action, an external manifestation of personality in action.

In modern pedagogical theory and practice, the problem of the formation of an individual style of action, which includes both the feeling of one's own health and the directions of the student's individual development, takes one of the priority places. The problem of understanding of the individual style of action falls directly into two semantic contexts of modern pedagogy: the formation of a healthy personality and the development of individuality identified as priorities of state policy in the field of education in Kazakhstan.

Individual style of action is an active concept used in research that includes a stable system of ways of action, which is conditioned by certain personal qualities. This system is a means of effectively adapting to objective requirements. In other words, the individual style is a unique system of psychological means, to which a person deliberately or spontaneously resorts in order to best balance their (typologically conditioned) individuality with the substantive, external conditions of their action (Klimov, 1982).

When mastering the individual style of action, a system is created that compensates or can overcome the negative influence of any individual properties. Therefore, entities with different or opposite properties can achieve approximately the same efficiency. The person him/herself (both consciously and unconsciously) creates his/her own style. The following prerequisites are needed to develop an individual style of action: (1) the existence of a "zone of uncertainty" of action, i.e., existence of several equivalent programmes that achieve ultimate goal through various operations and intermediate goals within uniquely determined boundaries; (2) the presence of active motives (ambition, interest, increase in earnings, positive attitude to action, protection of one's own personality, etc.), i.e., the desire of the entity to choose such an individual system of components of action (movements, operations and intermediate goals), which most closely corresponds to their features and, thanks to which, the greatest possible success for their action is achieved (Merlin, 1986).

The individual style of action reflects the unity of external and internal directions of the individual, of their activity, behavioural and value components. Each person has not only an individual style of action, communication, behaviour, but also a different combination of types of action, unequal productivity. It forms a different attitude to the same activity at different stages of its implementation, perceiving it either as a target or as an instrumental action that determines the uniqueness of lifestyle. Each style is a means of adapting a person to concrete realities of the external or internal world at a certain level, and the combined effect of their interaction forms an integral way of adaptation and transformation of the personality to the world (Vilensky, 2007).

The study examines the individual style of student's action. One of the components of assessment of an individual style of action is the level of students' own health. The life activity of a person depends on the state of health and the sense of one's own physical potential. As at present strict requirements are imposed on graduates of higher education institutions, their creative longevity and high professionalism are possible only in case of good health. One of the most important tasks of modern education is preservation and maintenance of students' health (Zhiginas & Semke, 2009).

The individual style of action is considered through the implementation of the following vectors in life: (1) strategic vector that indicates the ability to plan one's own action, to set life goals, and to achieve them; (2) prosocial vector – indicates the ability to adapt in the system of interpersonal relationships, maintain and establish social contacts; (3) I–vector that indicates the ability to abandon one's own point of view and insist on one's own claims; (4) creative vector – indicates the development of creative

abilities in different areas of art and culture; (5) spiritual vector – indicates the attitude to the moral values that are accepted in society; (6) intellectual vector – indicates the development of intellectual abilities; (7) family vector – indicates the attitude to the family values that are accepted in society; (8) humanistic vector – indicates the development of altruistic abilities (ability to provide support, empathy, and sympathy). The individual style of action is constantly being improved and subject to change. Development of an individual style of action is possible in the ESD system of thorough training.

Interrelation of Components of Emotional Competence and Individual Style of Action with Competences in the ESD System

Components of emotional competence and individual style of action are consistent with competences in the ESD system. Figure 2 shows the theoretical analysis of interrelation between the ESD competences and the components of emotional competence and individual style of action.
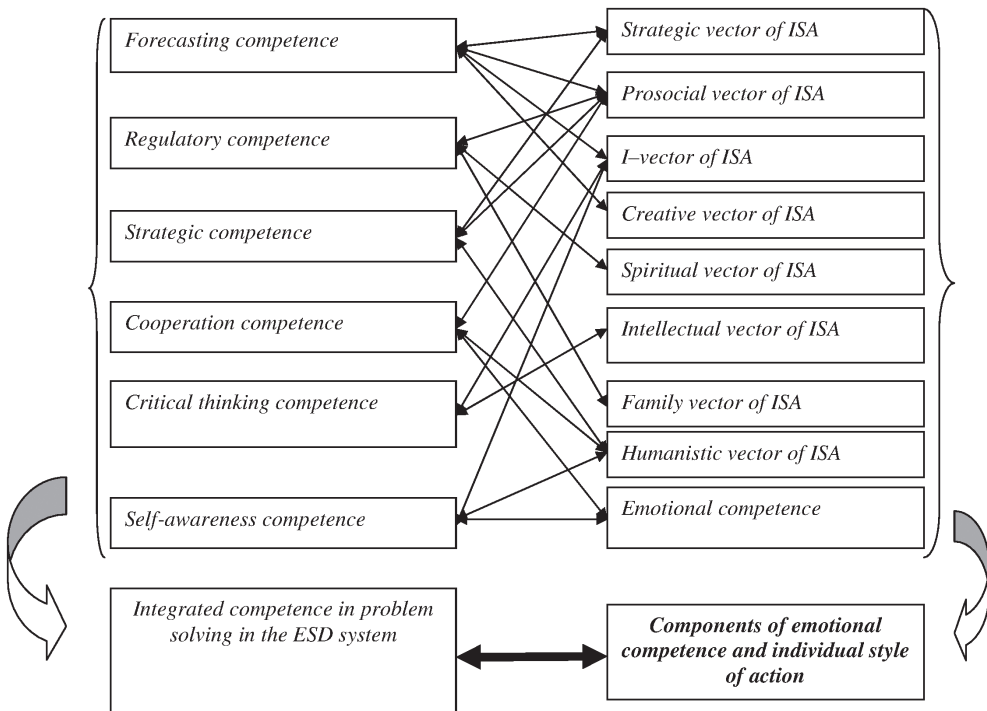

Figure 2. Scheme of the relationship of emotional competence and individual style of action in the ESD system

Figure 2 shows that the level and development of emotional competence and individual style of action can take place in the ESD system. Forecasting competence is combined with strategic, prosocial, creative and I–vector of an individual style of action. Regulatory competence is combined with the prosocial, spiritual and family vector of the individual style of action. Strategic competence is combined with the strategic, prosocial and humanistic vector of an individual style of action. Cooperation competence is combined with

the strategic, humanistic vector of an individual style of action and emotional competence. Critical thinking competence is combined with the I–vector and the intellectual vector of the individual style of action. Self-awareness competence is combined with the I–vector, humanistic vector of the individual style of action and emotional competence. The work of students in the ESD system can contribute to the development of creative and self-organised action. Students, as part of a programme of emotional competence development, can learn to understand the complex world in which they live. They can successfully develop cooperation and act to make positive changes.

Methodological and Theoretical Assumptions of the Observational Research

The development of research in the field of ESD mainly takes place in the field of theoretical studies (Salīte et al., 2009; Pipere et al., 2015; Salīte et al., 2016, etc.). To transform the ESD principles into a practical plane, a number of quantitative studies are needed to analyse the current state of students – future teachers by the components of emotional competence and individual style of action. In fact, it is necessary to perform an analysis of the results of direction of the development of emotional competence and the individual style of action in order to understand the current state of students. Therefore, the systemic approach is the basic methodological prerequisite for research as an opportunity to analyse and systematise the obtained data. In the process of analysing the choice of components for the study of emotional competence and individual style of action, an integrated approach is used, which allows selecting the necessary components for describing the basic parameters of the research.

At present, there are few studies in Kazakhstan that would study the development of emotional competence and individual style of action among students–teachers in the ESD system. The concept of ESD in Kazakhstan is not yet sufficiently studied. Before going deeper into the qualitative analysis of the components of emotional competence and individual style of action and elaborating a development programme within the framework of ESD, it is necessary to understand the general situation of development of professionally important qualities of future teachers. Therefore, the present study is predominantly of quantitative character in order to provide a basis for general ideas about the student environment.

The results of the study will become the basis for further research of emotional competence and elaboration of the programme of development of emotional competence in the ESD system.

Aims, Tasks, Subject and Object of the Research

The study aims at examining the characteristics of emotional competence and individual style of action in the ESD system among students–future teachers. The question has been raised whether there are stable links between components of emotional competence and the individual style of action of students–teachers of higher education. Within the study, three tasks have been set: (1) to assess the emotional competence of students–teachers of higher education; (2) to assess the features of the individual lifestyle of students–teachers of higher education; (3) to study the relationship between components of the individual style of action and the emotional competence of students–teachers of higher education.

The object of the study – students of pedagogical specialties at higher education institutions of Almaty, Kazakhstan.

According to the methodological approach to the study of emotional competence proposed by I.M. Yusupov and G.V. Yusupova (2009), the components of the emotional competence of diagnostic methods can be distributed as shown in Table 1.

Table 1
Components of Emotional Competence

	Behavioural block	Cognitive block
INTRApersonal block	Self-regulation	Reflection
	1. Dedication (energy, enthusiasm, absorption) 2. Managing one's own emotions (Hall)	1. Emotional awareness (Hall)
INTERpersonal block	Relationship regulation	Empathy
	1. Managing other people's emotions (Hall)	1. Empathy (Hall) 2. Empathy (Yusupova) (Empathy to parents, animals, elderly people, children, heroes of works of art, unfamiliar people) 3. Understanding of other people's emotions (Hall) 4. Recognising the emotions of unfamiliar people (Hall)

Table 1 shows that the behavioural block "Self-regulation" includes the scales: "Enthusiasm for learning" (vigour, dedication, absorption) and "Managing one's own emotions" (P. Hall). The behavioural block "Regulation of Relationships" includes a scale: "Managing other people's emotions" (P. Hall). The cognitive block "Reflection" contains a scale: "Emotional awareness" (P. Hall). The cognitive block "Empathy" comprises scales: "Empathy" (P. Hall); "Empathy" (Yusupova), "Understanding the Emotions of Others" (P. Hall), "Recognising the Emotions of Unfamiliar People" (P. Hall).

Research Design and Participants

The study, which took place in September 2018, involved 20 students in pedagogical specialties from Almaty, Kazakhstan. They were aged 18 and 25 years (Md = 23 years; SD = 2.2 years). The respondents comprised 3 men and 17 women who were not married and did not have their own children. Five students had secondary education and were pursuing a Bachelor's degree, 15 students had a Bachelor's degree and were enrolled in Master's degree programmes. All students did not have their own children and pedagogical experience. 11 students had experience working with children, and 9 students did not have such experience.

The study was anonymous and confidential.

The following diagnostic methods have been used:

1. Individual style of action:
1.1. "General Health Questionnaire" (GHQ-12), according to D. Goldberg, in the adaptation of A.A. Volochkova, A.Yu. Popova (Goldberg, 1978).

GHQ-12 has 12 questions, the answers to which the respondent gives according to a 4-point scale: 0 – "certainly not", 1 – "probably not", 2 – "perhaps yes", 3 – "certainly, yes." High scores (characterising the pole of mental discomfort) correspond to affirmative answers to those questions that reveal manifestations of psychological distress, emotional instability, and negative answers to those associated with the expression of positive emotions, psychological stability (they are evaluated in the reverse order).

Points for answers to questions 1, 3, 4, 7, 8, and 12 are calculated in the reverse order. From 0 to 8.5 – a high level; from 8.6 to 27.5 – an average level; from 27.6 to 36 – a low level.

1.2. "Individual Model of Psychological Health" developed by A.V. Kozlov (2014). It includes 8 scales: strategic vector; prosocial vector; I–vector; creative vector; spiritual vector; intellectual vector; family vector; and humanist Vector (Kozlov, 2014).

The method consists of 86 statements, which offers two possible answers: "Yes" and "No". The Individual Model of Psychological Health is standardised, which allows comparing the results of the respondent with other tests and recommending the method for use by practical psychologists.

2. Emotional competence:

2.1. The Utrecht Work Engagement Scale (UWES-S) developed and approbated under the guidance of V. Schaufeli (Schaufeli et al., 2002). It includes three scales: vigour, dedication, and absorption.

Analysis of the survey results according to the UWES-S scale allows obtaining an integral indicator of the formation of the "absorption" parameter, as well as studying its structure and measure of the severity of structural elements among various categories of students. The UWES-S scale consists of 14 questions; 5 questions are related to the "vigour" component, 5 – "dedication", 4 – "absorption". In terms of the wording, the Russian language version of the UWES questionnaire has been taken as a basis; however, in accordance with the research by V. Schaufeli, a similar terminological replacement has been made: "work" has been replaced by "study, occupation".

The respondents evaluate how often they experience this or that experience in relation to their studies according to a 7-point scale from "never" (0 points) to "every day" (6 points). Next, the average for each scale is calculated, and the severity of each of the three scales is determined. A high level of all three scales determines dedication. The integral indicator of dedication is calculated as the average value for all three scales.

2.2. The Method of Diagnosis of Empathy by I.M. Yusupova. The method includes 6 diagnostic scales of empathy, expressing attitudes towards parents, animals, elderly people, children, heroes of works of art, friends and unfamiliar people.

Empathy is the emotional response of a person to the experiences of other people, manifested both in empathy and in sympathy. When empathising, the emotional response is identical to what and how a particular person experiences; this is only possible if one imagines oneself in the place of the experiencer. With sympathy, an emotional response is expressed only in a sympathetic attitude towards a surviving person or a suffering animal. The experiences of a sympathetic person and their manifestations can be very diverse. When assessing empathy as an individual psychological characteristic, it is necessary to take into account factors that most affect emotional sensitivity and features of emotional response, such as gender, age, emotional experience, social attitudes, etc. Empathy is characterised by the fact that it can arise and manifest itself with great force

not only in relation to people (animals) who actually exist, but also depicted in works of art of literature, cinema, theatre, painting, and sculpture.

The questionnaire contains 6 diagnostic scales of empathy, expressing attitude to parents, animals, elderly people, children, heroes of works of art, friends and unfamiliar people. In the questionnaire there are 36 statements, for each of which the respondent must assess the extent to which s/he agrees or disagrees with the statement using 6 answer options: "I don't know", "never or not", "sometimes", "often", "almost always", "always or yes". Each answer has a numerical value: 0, 1, 2, 3, 4, and 5. The authors of the research have made minor adjustments in the process of processing the results. This is due to the fact that when calculating the total number of points, the "average level" has a very large range of values (37–62 points); therefore, the "average level" has been divided into three levels: "below the average" (37–45 points), "average" (46–54 points) and "above average" (55–62 points). These adjustments have made it possible to more accurately measure and assess changes in the level of empathy of the students of the experimental group.

2.3. Method of Identification of Emotional Intelligence by N. Hall in the modification of G.V. Rezapkina (2001) (Fetiskin, Kozlov, & Manuilov, 2002).

The method is designed to measure emotional intelligence, which is understood as the ability to understand the relationships of a person, represented in emotions, and to manage the emotional sphere on the basis of decision making. The scale of emotional intelligence (EI (H)) consists of 5 subscales: emotional awareness; managing emotions (rather, emotional reflection, emotional non-rigidity); self-motivation (rather an arbitrary control over one's emotions); empathy; recognition of other people's emotions (rather, the ability to influence the emotional state of other people).

Research Findings and Conclusions

Description of the results obtained by the components of emotional competence and individual style of action are presented in Tables 2 and 3.

Table 2
Mean and Standard Deviations of Parameters of Individual Style of Action

Scale	Denomination	Mean M	Standard deviation SD
GH	General health	12.5	6.0
SV	Strategic vector	6.1	1.7
PV	Prosocial vector	6.1	1.8
I-V	I–vector	4.9	1.3
CV	Creative vector	6.4	2.1
SV	Spiritual vector	6.0	2.4
IV	Intellectual vector	7.6	2.2
FV	Family vector	6.6	2.5
HV	Humanistic vector	4.9	1.9

Table 2 shows that the students' general health is in the range of average values with a tendency to high values. This means that students rate their general health as

good: they can well focus on solving problems and make right decisions, get enough sleep, and often feel happy.

The levels of the strategic, prosocial, creative, spiritual, humanistic vectors are in the range of average values. Level of I–vector tends to the area of low values. Students have problems with expressing their own point of view, argumentation, the ability to defend their opinions and to correctly explain them. Often there is a desire not to fight, and there is a desire for passivity, conformity. The level of the intelligent vector is in the region of high values. Respondents have a very good level of intelligence that helps them in the study process. However, heightened intellectual abilities can often lead to neurotic personality and emotional breakdowns.

Table 3
Description of the Study Sample by the Parameters of Emotional Competence

Scale	Denomination	Mean M	Standard deviation SD
Vig	Vigour	3.5	0.9
Ded	Dedication	4.2	1.1
Abs	Absorption	3.9	0.9
IMA	Integral indicator "dedication to studies"	3.8	0.8
EMV	Empathy to parents	9.8	2.4
EMDZ	Empathy to animals	6.2	2.7
EMP	Empathy to the elderly	7.9	2.1
EMB	Empathy to children	9.8	2.8
EMHM	Empathy to the heroes of works of art	7.6	2.5
EMNC	Empathy to unfamiliar people	8.3	2.7
VLEM	General empathy	49.5	10.6
EIZ	Emotional Awareness	10.4	3.3
JEV	Managing one's own emotions	4.3	7.3
PM	Self-motivation	9.1	5.9
EM_H	Empathy	10.5	3.3
ACCE	Recognising other people's emotions	10.1	3.5
EI_H	Emotional intelligence	44.3	17.8

Table 3 shows that the level of dedication to studies in this sample is in the range of moderate values. However, the level of vigour, dedication and absorption tends to decrease. In general, it should be noted that dedication to studies tends to decrease.

The level of empathy is in the area of average values. The level of empathy to parents, animals, and heroes of works of art tends to be low. The level of empathy to children and unfamiliar children tends to be high. However, the overall level of empathy tends to be low.

Levels of emotional intelligence scales are also in the range of average values. All scales and the general scale of emotional intelligence tend to be high. Participants of the study rate their emotional intelligence above average. Perhaps because young people do not know their emotional capabilities and have not yet worked with children, since teachers in similar studies show very low values of emotional intelligence.

Study of Relations of the Components of Individual Style of Action and Emotional Competence

To analyse correlations, the Spearman's rank correlation criterion has been chosen, since most measurement scales differ from normal distribution according to the Kolmogorov–Smirnov criteria in the Lilliefors' modification, Shapiro–Wilk and "asymmetry and kurtosis" criteria.

Table 4

Table of Relations of Components of Individual Style of Action and Emotional Competence

	GH	SV	PV	I-V	CV	SV	IV	FV	HV
Vig	-.563**	.375	.368	.106	.546*	.216	.100	.234	.384
Ded	-.541*	-.012	.130	.368	.372	.052	-.202	.407	.252
Abs	-.669**	.103	.198	.309	.405	-.144	-.171	.278	.134
IMA	-.613**	.180	.278	.275	.531*	.064	-.041	.347	.287
EMV	-.405	.415	.149	-.127	.169	.538*	-.277	.418	.531*
EMDZ	-.128	-.094	-.143	.322	-.131	.325	-.322	.299	.194
EMP	-.382	.596**	-.013	.067	.513*	.721**	.055	.593**	.384
EMB	-.550*	.597**	.471*	.247	.587**	.725**	-.113	.635**	.673**
EMHM	-.326	.281	.415	.050	.487*	.620**	.131	.487*	.564**
EMNC	-.565**	.360	.402	.529*	.724**	.216	.111	.422	.312
VLEM	-.603**	.572**	.297	.273	.673**	.692**	.012	.713**	.563**
EIZ	-.487*	-.186	.506*	.468*	.605**	.244	.154	.456*	.304
JEV	-.778**	.227	.184	.250	.250	.189	-.280	.158	.280
PM	-.796**	.056	.274	.504*	.208	.368	-.472*	.413	.325
EM_H	-.531*	.577**	.339	.244	.659**	.675**	.058	.660**	.498*
ACCE	-.665**	.307	.278	.336	.621**	.186	-.044	.431	.417
EI_H	-.930**	.249	.434	.519*	.629**	.386	-.179	.556*	.465*

**. The correlation is significant at the level of 0.01 (2-tailed).

*. The correlation is significant at the level of 0.05 (2-tailed).

1. Relation of the Component of Individual Style of Action as a Level of General Health and Component of Emotional Competence as Dedication to Studies

Table 4 shows that the component of individual style of action, as a level of general health, has stable links with all scales of dedication to studies. (Low values of general health (GHQ-12) correspond to an excellent state of health. Therefore, the presented relations are negative). An excellent level of general health allows students to gain strength from their learning activities, show enthusiasm in their studies, and indulge in the learning process. Feeling healthy is steadily associated with passion for study. Conversely, there is a strong link between feeling unhealthy and the loss of interest in learning, energy reduction, lack of enthusiasm and detachment.

2. Relation of the Component of Individual Style of Action as a Level of General Health and the Component of Empathy (Yusupova's Questionnaire)

Statistically significant relations have been found between the level of general health and empathy to children and unfamiliar people. These components of emotional compe-

tence have influenced a stable relation with the general scale of empathy (Yusupova's questionnaire). An excellent level of general health allows students to demonstrate empathic abilities in relation to children and unfamiliar people. Perhaps because the entire sample of students is not married, while others, unfamiliar people and children, as a subject of their future profession, arouse an increased interest among students. Conversely, there is a strong relation between feeling unhealthy and the low level of empathy to children and unfamiliar people.

3. Relation of the Component of Individual Style of Action as a General Level of Health and Component of Emotional Competence of Scales of Emotional Intelligence

A positive assessment of one's own health is consistently related with all scales of emotional intelligence (Hall's questionnaire). A satisfactory level of health contributes to emotional flexibility, the ability to control one's own emotions, to motivate oneself to achievements, to be in harmony with one's mood, to calm oneself and to find an emotional balance, to feel one's emotions and to understand other people's emotions. The unsatisfactory level of health can lead to the neurotization of an individual and to insensitivity to one's emotional sphere and, accordingly, to insensitivity to the emotions of other people. In conjunction with a high level of intellectualization, it can exacerbate neurotic symptoms and lead to quick emotional fatigue at work, especially in the "person-to-person" sphere.

4. Relation of the Component of Individual Style of Action (Kozlov's Questionnaire) and the Component of Empathy (Yusupova's Questionnaire)

The general level of empathy has shown a steady relationship with the strategic, creative, spiritual, family and humanistic vectors. A high level of empathic abilities contributes to the ability to tune oneself into a working mood, to be calm in a nervous situation and find the right solution, to fulfill promises, to easily switch from various activities, to take a balanced view of the opinions of people and to build one's own activities according to goals. Poorly developed empathic abilities give the nervous character of human life. Often there is an inability to focus on the main thing, there are difficulties in solving important problems, difficulties in switching attention. Excitement, impatience, the desire to do everything quickly, dispersion can appear (Strategic vector).

A high level of empathic abilities contributes to a creative approach to life: the ability to find a hobby for the soul, to get involved in a variety of creative arts, to enjoy beautiful things and nature. Poorly developed empathic abilities concentrate the person's attention on their personal, egoistic, even egocentric (possibly neurotic) problems and do not create a need for creative expression (Creative vector).

A high level of empathic abilities in a person develops faith in God, fate, love, attention to moral, non-material values. Weakly developed empathic abilities are centred on materialistic, rational values. (Spiritual vector).

The high level of empathic abilities contributes to the importance of family values. Person understands the importance of the family as the main life support. Weakly developed empathic abilities consider family relationships from the benefit of the family to an individual. In case of loss of benefits, this relationship will not have any values and can be terminated (Family vector).

The high level of empathic abilities promotes attentive and merciful attitude to other people. It promotes condescension and ability to forgive, to treat with understanding the errors and miscalculations, as anyone can make mistakes. Weakly developed empathic

abilities concentrate on personal, egoistic, egocentric needs, therefore it is very difficult for such people to take another person's position, to understand and forgive them (Humanistic vector).

It is of interest that in the present study there have been no stable relations observed with the intellectual vector. It can be explained with the fact that the emotional and intellectual spheres are not interrelated in the students' assessments. Sustained relations between the strategic vector and empathy to the elderly and children have been obtained. Perhaps this is due to the special attention to the elderly and children in Kazakhstan. A steady relationship has been found between the pro-social vector and empathy with respect to children. For future teachers it is important to build relationships with children.

Strong links have been found between I–vector and empathy in relation to others, unfamiliar people. It is possible that in a situation where a person is not familiar, it is easier for students to express their personal view on those or other problems, and to show their individual abilities in defending their opinions, using empathic abilities.

Strong links have been identified between the creative vector and empathy with respect to the elderly, children, heroes of works of art and other people. Well-developed empathic abilities to the most diverse segments of the population contribute to the development of creativity.

Strong links have been identified between the spiritual vector and empathy to animals, elderly people, children, heroes of works of art. It is not surprising that the spiritual vector of development is associated with empathy to animals. Animals are defenceless against humans and do not bring any material benefits, like the elderly and heroes of works of art.

Strong links have been identified between the family vector and empathy to the elderly, children, heroes of works of art, perhaps because the older generation in Kazakhstan is often the centre of the family, and children have family ties.

Strong links have been identified between the humanistic vector and empathy to parents, children, and heroes of works of art. The humanistic position of compassion and mercy causes warm, empathic feelings towards parents, children, and heroes of works of art.

5. Relation of the Component of Individual Style of Action (Kozlov's Questionnaire) and the Component of Emotional Competence of Scales of Emotional Intelligence

The general level of emotional intelligence is consistently related to the I–vector, creative, family, and humanistic vector of the individual style of action. Empathic abilities (Hall's Questionnaire) are consistently related to the "I-vector", creative, spiritual, family and humanistic vector of the individual style of action. The creative vector of an individual style of action is consistently related to the ability to recognise the emotions of other people. For the pedagogical profession, this is a very important link because teachers have a creative aspect that occurs in relationships with people.

A negative stable link has been obtained between the intellectual vector of the individual style of action and self-motivation. This means that the higher the intellectual vector is developed, the more difficult it is for a person to motivate him/herself to solve life problems. It can be explained by the fact that often superfluous intellectual abilities contribute to the egocentric position of the individual and do not allow for the development of a person's emotional sphere, leading to neuroticism.

The level of self-motivation is consistently related to the I–vector of the individual style of action. The ability to be aware of one's personal position and one's opinion on one or another problem contributes to the ability to motivate oneself to achieve one's goals. If a person cannot explain and represent his/her point of view to other people, s/he has problems explaining to him/herself why exactly s/he needs to set goals.

The level of the emotional awareness scale is consistently related to the strategic, prosocial, creative, family vectors and I–vector of the individual style of action. A high level of emotional flexibility and the ability to regulate one's own emotional states are consistently associated with development vectors that indicate strategic life planning, the ability to build relationships with people, creative abilities, family values and the ability to express their personal viewpoint. Emotional rigidity, insensitivity interfere with the active development of aspects of the individual style of action and lead to a person's egocentric position.

The level of the scale of recognition of other people's emotions is consistently related to the creative vector of the individual style of action. The creative aspect of individual development is associated with interest in other people, which is very important for future teachers.

Conclusions

The results of the study have demonstrated the importance of developing emotional competence for future teachers in the ESD system. Self-assessment questionnaires have been used, which are known to be subject to various distorting factors, such as social desirability, influence of underdeveloped self-reflection and self-understanding. Furthermore, young people can rate their capabilities more highly than they really are. In this sample, all students do not have the experience of pedagogical work with children, and are not married. Perhaps these factors have shown that they rate their abilities in emotional competence more highly than they actually are.

Notwithstanding the foregoing, the results have demonstrated that there is a strong link between the components of emotional competence and individual style of action. It should be noted that the students have shown rather high indicators in terms of intellectual vector of the individual style of action. Intellectual abilities are a prerequisite for successful study at the university. However, no significant relations between them and the components of emotional competence have been obtained. That, perhaps, may indicate an excessive level of intellectualization, which can lead to neurotization of the personality and emotional fatigue, when students are involved in the pedagogical process. There is a stable relation between excessive intellectualization and a low level of development of the personality's emotional-volitional sphere. Intellectualization in the process of life is manifested as self-justification. This is a kind of defensive tactics in the interpretation of both one's personality traits and actions. Intellectualization acts as the neutralization of unwanted emotions in a rational explanation of all one's actions, which should always look socially desirable, even if in fact they are not. In fact, excessive intellectualization offers to be a man right in everything. Therefore, the development of emotional competence offers harmonization of the intellectual component of development.

It is necessary to explore the intellectual aspect of students' development using the method of diagnosing defense mechanisms "Life Style Index" by R. Plutchik and H. Kellerman, which effectively diagnoses the level of human neuroticism.

The results of the study have shown the need for the development of emotional competence in the course of study at a higher education institution. Students should have an idea of their emotional capabilities, understand the situation when symptoms of emotional overwork can appear and develop an individual style of work.

The conditions of education for sustainable development imply constantly developing and improving emotional competence. A high level of intellectual abilities without an actively developed emotional sphere can cause difficulties in the development of sustainable education, as it is a prerequisite for the neurotic development of the personality. The neurotic personality is not capable of showing an altruistic, holistic view of the world, as it focuses on the egoistic perception of the world, on the social distance between people. It causes difficulties in the personality's development and strengthening of making choice in the interests of sustainable development. Difficulties arise when creating conditions for improving the quality of life.

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