**Dissertation by Zhumakul Maratovna Molbassynova, entitled "Psychological influence of students' critical thinking on the development of their emotional intelligence", submitted for the degree of Doctor of Philosophy (PhD) in the educational programme "8D03107 – Psychology"**

## ABSTRACT

**Relevance of the research.** One of the principal objectives of the contemporary education system is to raise the level of students' emotional intelligence through the development of their critical thinking, and to foster the skills required to make informed, flexible and responsible decisions when addressing both real-life and academic problems.

In contemporary psychological science, the relationship between critical thinking and emotional intelligence, and the treatment of this relationship as a psychological phenomenon, has been examined comprehensively and from a variety of perspectives by both international and Kazakhstani scholars. International researchers such as R. Paul, D. Halpern, R. H. Ennis, D. Klooster, E. S. Zair-Bek, S. M. Wechsler and others have conceptualised critical thinking not merely as a particular set of intellectual skills and abilities, but also as a process that shapes a person's thinking, entails holding one's own position, and reflects a readiness to apply these skills both in professional activity and in everyday life.

Among Kazakhstani and international researchers of emotional intelligence, N. Andreeva, H. Weisinger, D. V. Lyusin, E. A. Sergienko, R. Bar-On, D. Goleman, J. D. Mayer, P. Salovey, C. Philip, J. Robert, P. N. Lopes, J. Ciarrochi, S. M. Zhakypov, A. M. Kim, A. A. Tolegenova, Zh. I. Namazbaeva, O. Kh. Aimagambetova, N. K. Toksanbaeva, Z. B. Madalieva, S. K. Berdibaeva, A.K.Satova, O. B. Tapalova and E. D. Abisheva have proposed specific interpretations of this phenomenon.

The research problem consisted in identifying the ways in which critical thinking exerts a psychological influence on the development of students' emotional intelligence. In theoretical terms, this is the problem of defining, investigating and refining the component structure of emotional intelligence; in practical terms, it is the problem of designing and providing a scientific rationale for a programme aimed at developing students' emotional intelligence through critical thinking.

The relevance of the problem and the insufficient development of this line of inquiry in educational institutions provided the grounds for selecting the research topic "The Psychological Influence of Students' Critical Thinking on the Development of Emotional Intelligence".

In light of the above, the object, subject, aim, objectives and hypothesis of the research were defined.

**The aim of the research is** to determine the nature of critical thinking and its influence on the development of students' emotional intelligence, and to verify its effectiveness experimentally.

**Research objectives:**

1. To conduct a theoretical analysis of Kazakhstani and international scholarly literature on critical thinking and emotional intelligence.

2. To identify the principal psychological components of, and the interrelations between, students' critical thinking and emotional intelligence.

3. To describe and justify methods for diagnosing schoolchildren's critical thinking and emotional intelligence.

4. To design and pilot a model and a programme for developing critical thinking and emotional intelligence in an educational institution.

5. To evaluate the effectiveness of the developed model and programme and to determine the prospects for their application in educational practice.

**The object of the research is** the characteristics of students' critical thinking and emotional intelligence.

**The subject of the research is** the psychological influence of students' critical thinking on the development of the components of emotional intelligence.

**Research hypothesis:** it is hypothesised that if a scientifically grounded model and a psychological development programme aimed at fostering schoolchildren's critical thinking are systematically integrated into the educational process, and if the psychological and pedagogical conditions necessary for their implementation are ensured, then an increase in students' level of critical thinking will exert a positive psychological influence on the development of their emotional intelligence. As a result, students' abilities to understand and regulate their own emotions, to perceive the emotional states of others, and to display emotional flexibility in social interaction will be enhanced.

**Research methods:** in order to achieve the aim of the research, accomplish its objectives and test the initial theoretical propositions, the following instruments were employed:

1. N. Hall's Emotional Intelligence Test; 2. V. V. Boyko's questionnaire "Diagnosing the Level of Empathy"; 3. Tom Chatfield's "Assessment of Critical Thinking Ability"; 4. M. A. Manoilova's "Diagnostics of Emotional Intelligence (MEI)"; 5. J. Kincher's test "How Good Are You at Critical Thinking?"; 6. the "Test Questionnaire for Determining Critical Thinking" (A. S. Bayramov); 7. the EmIn questionnaire (D. V. Lyusin).

Mathematical and statistical data processing was performed using Pearson's correlation coefficient (r), Spearman's rank correlation coefficient (rs) and Student's t-test. Statistical analysis was carried out with Microsoft Excel and the SPSS 26 statistical package.

**Central idea of the research:** to provide a theoretical and empirical justification of the psychological influence of critical thinking on the development of students' emotional intelligence, treating critical thinking as a cognitive process that enables the analysis, interpretation and evaluation of information as well as reasoned decision-making. Taking into account the interrelation between indicators of critical thinking and the components of emotional intelligence, the research implements an integrated psychological approach aimed at developing students' abilities to understand their own emotions, regulate them consciously, recognise the emotional states of others and establish effective interpersonal relationships.

**Theoretical significance of the research:**

– the specific features of the psychological influence of students' critical thinking on the development of the components of emotional intelligence in the context of Kazakhstani general secondary schools have been clarified;

– the psychological content of the relationship between students' critical thinking and emotional intelligence has been elucidated at the scientific and theoretical level;

– the structure, components and mechanism of the psychological influence of critical thinking on the development of emotional intelligence have been defined at the theoretical level;

– a theoretical model based on the interaction between critical thinking and emotional intelligence has been proposed; their psychological significance for the development of the student's personality has been systematised, and their interrelation and interdependence have been theoretically substantiated;

– the experimental study established a relationship between the development of students' critical thinking and their emotional intelligence, and the statistical regularities between these indicators were confirmed by means of mathematical and statistical analysis. The positive effect of an increased level of critical thinking on the developmental indicators of the components of emotional intelligence has been confirmed experimentally;

– a structural model for developing emotional intelligence through students' critical thinking has been designed; in line with the aim of the research, a psychological programme for the integrated development of critical thinking and emotional intelligence has been proposed, and its content, implementation stages, methods and conditions for effectiveness have been systematised.

**The practical significance of the research** lies in the possibility of applying in psychological and pedagogical practice the results of piloting the psychodiagnostic instruments used in the empirical study, of analysing the data obtained, and of identifying the developmental characteristics of schoolchildren's critical thinking and emotional intelligence. The findings provide a basis for diagnosing these psychological phenomena in the educational environment, assessing their levels of development and organising targeted work to enhance them.

The developed model and programme can be used by school psychologists, teachers and instructional specialists for the targeted development of students' critical thinking and emotional intelligence.

The materials developed within the research – the training programme "Developing Students' Critical Thinking and Emotional Intelligence", the collection "Psychological Exercises for Developing Students' Emotional Intelligence and Critical Thinking" and the teaching and methodological manual "Ways of Fostering Students' Critical Thinking and Emotional Intelligence" – can be widely applied as effective tools for organising psychological and pedagogical work aimed at developing students' critical thinking and emotional intelligence.

**Theoretical and methodological foundations of the research.** The theoretical foundation of the research comprises the conceptions of emotional intelligence in international psychology: the ability model of emotional intelligence

by J. D. Mayer, D. R. Caruso and P. Salovey; D. Goleman's theory of emotional competence; and R. Bar-On's non-cognitive theory, as well as theoretical conceptions of critical thinking and scholarly approaches to its development (D. Halpern, D. Shamis, D. Klooster). In addition, works on emotional intelligence by researchers from the post-Soviet region (G. G. Garskova, I. N. Andreeva, and the two-component theory of D. V. Lyusin and M. I. Manoilova) constituted the theoretical and methodological basis of the research, serving to explain the system of interaction between critical thinking and emotional intelligence.

**Scientific novelty of the research:**

1. The theoretical propositions explaining the psychological influence of students' critical thinking on the development of emotional intelligence have been systematised, and its specific features clarified, in the context of the Kazakhstani general secondary school. The psychological role of critical judgement, reflection and the conscious evaluation of emotionally significant situations in the development of the components of emotional intelligence has been theoretically substantiated.

2. In the course of the research, the critical thinking diagnostic instruments "Assessment of Critical Thinking Ability" (Tom Chatfield) and "Test Questionnaire for Assessing Critical Thinking" (A. S. Bayramov) were translated into Kazakh and adapted. During adaptation, their psychometric properties were specifically examined and their reliability and validity were assessed. In particular, the internal consistency of the test items and the reliability of the instruments were determined using Cronbach's alpha coefficient.

3. Statistically significant relationships between indicators of students' critical thinking and emotional intelligence have been identified empirically; the patterns of change in the components of emotional intelligence resulting from the targeted development of critical thinking have been established experimentally. The results of the formative experiment made it possible to substantiate the positive psychological influence of developing critical thinking on students' emotional intelligence.

4. A structural and content model characterising the psychological influence of critical thinking on the development of emotional intelligence has been developed. In the model, critical thinking is treated as the independent variable and emotional intelligence as the dependent variable; the principal mechanisms of psychological influence and the conditions for development have been integrated into a unified system.

5. A psychological and pedagogical programme aimed at enhancing students' emotional intelligence through the targeted development of critical thinking has been developed, and its effectiveness has been evaluated in a formative experiment. The content areas, implementation stages and psychological methods of the programme have been substantiated, and the possibilities for its application in the psychological and pedagogical practice of general secondary schools have been identified.

**Main propositions submitted for defence:**

1. Critical thinking is an important psychological factor influencing the development of students' emotional intelligence. Its constituent processes – analysing information, evaluating arguments, formulating well-founded conclusions and reflective reasoning – create the psychological preconditions for students to consciously understand their own emotions and the emotional states of others, to evaluate emotional situations objectively and to regulate their emotional responses.

2. The "Model for Developing Schoolchildren's Critical Thinking and Emotional Intelligence" devised in the course of the research is grounded in the interaction between these phenomena, which characterises the psychological influence of critical thinking on the development of emotional intelligence. In the model, critical thinking is treated as the independent variable and emotional intelligence as the dependent variable; the structural components of the psychological relationship between them, together with the psychological and pedagogical conditions for influence and development, have been systematised.

3. The results of the empirical study revealed statistically significant relationships between indicators of schoolchildren's critical thinking and the structural components of emotional intelligence. The features of critical thinking, including analysis, argumentation, logical reasoning and reflective evaluation, correspond in content to the cognitive (recognising and understanding emotions), emotional (experiencing and being aware of emotional states), behavioural (regulating emotional reactions and actions), analytical (analysing and evaluating emotional information) and creative (displaying flexibility in emotional situations and generating alternative solutions) components of emotional intelligence.

4. The targeted development of critical thinking promotes positive changes in the structural components of students' emotional intelligence. This proposition is supported by the results of the formative experiment conducted during the implementation of the psychological training programme "Developing Students' Critical Thinking and Emotional Intelligence".

5. The diagnosis and development of students' critical thinking and emotional intelligence are based on the principles of systematicity, comprehensiveness, objectivity and sociocultural appropriateness. In accordance with these principles, the scientific validity of the diagnostic instruments and their compliance with psychometric requirements are regarded as an essential condition for ensuring the reliability and validity of assessing the level of development of students' critical thinking and emotional intelligence.

**Structure of the dissertation:** the dissertation consists of an introduction, three chapters, a conclusion, a list of references and appendices.