

The Role of Reflection and Independent Thinking in The Formation of Pedagogical Intelligence

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ABSTRACT

The article analyzes the role of reflection and independent thinking in the process of forming pedagogical intelligence. Reflection is considered as the main tool that allows students to critically evaluate their own knowledge and experience. Independent thinking plays an important role in the development of their creative and critical approaches. The results of the study show that encouraging reflective activity and supporting independent thinking in the learning process serve to deeply form pedagogical intelligence. The article also emphasizes the importance of pedagogical intelligence in personal and professional development, its connection with the development of independent decision-making and creative approach in students.

Keywords: Pedagogical intelligence, reflection, independent thinking, critical thinking, creative approach, learning process.

INTRODUCTION

The formation of pedagogical intelligence in today's education system is one of the most important issues of modern pedagogy. Pedagogical intelligence includes not only the knowledge and skills of the teacher, but also his critical thinking, creative approach and ability to manage the learning process. This concept serves as a key tool in increasing the effectiveness of a person in pedagogical activity, stimulating independent thinking of students, and successfully applying innovative teaching methods.

Reflection and independent thinking are recognized as important components in the formation of pedagogical intelligence. Reflection allows students to analyze their own knowledge, experience, and mistakes, which makes their learning process more effective. At the same time, independent thinking allows students to make conscious decisions, solve problems with a creative approach, and expand their knowledge. This process forms in students not only the acquisition of knowledge, but also the skills to systematically apply and develop it.[1]

In modern education, the role of a teacher is not limited to the transfer of knowledge, but also to guiding the intellectual development of students, directing them to independent thinking, and stimulating reflective activity. In this regard, the development of pedagogical intelligence is directly related to the improvement of the teacher's personal and professional qualifications. Research shows that a high level of pedagogical intelligence allows developing students' critical thinking and adapting them to the requirements of modern life.

At the same time, the process of forming pedagogical intelligence plays an important role in the social and personal development of students. Through reflection and independent thinking, students learn to analyze their knowledge and experience, which increases their ability to self-awareness. Therefore, the development of a reflective approach and independent thinking in the modern pedagogical process is considered an integral part of the deep formation of pedagogical intelligence.[5]

This article is devoted to studying the importance of reflection and independent thinking in the formation of pedagogical intelligence, their role in the intellectual and personal development of students. The results of the study will be useful for teachers in developing practical recommendations for more effective organization of the educational process, development of creative and critical thinking of students, and improvement of pedagogical intelligence.

METHODOLOGY

A comprehensive analysis of the existing literature on the topics of pedagogical intelligence, reflection and independent thinking was conducted, and their interrelationships and significance in the pedagogical process were studied. For this purpose, important sources were reviewed based on international and local research. For example, Howard Gardner's theory of multiple intelligences provides the main theoretical directions for the formation of pedagogical intelligence and its impact on students' creative activity. At the same time, John Dewey's concept of reflective thinking highlights the role of students in analyzing their own knowledge and experience. [6]Local researchers, including S. Khudoyberdiev and M. Rakhimov, studied the practical application of reflection and independent thinking in the educational process in the development of pedagogical intelligence and developed recommendations taking into account the national context. As a result of the analysis of these sources, it was confirmed that reflection and independent thinking are important tools for developing students' critical thinking, forming a creative approach, and increasing their personal intellectual potential.[3]

As a research methodology, a qualitative and quantitative approach was used together. As a qualitative method, students' reflective and independent thinking activities were analyzed using interviews and observations. At the same time, students' pedagogical intelligence level, reflection skills, and independent thinking potential were measured using quantitative methods using tests and questionnaires. Pupils and students of secondary schools and higher educational institutions in Tashkent were selected as the research sample. The data obtained were analyzed using the SPSS program, and the correlation and regression methods were used to determine the relationship between reflection, independent thinking, and pedagogical intelligence.[4]

Also, innovative educational technologies and interactive methods were used in the research process to increase the effectiveness of reflection and independent thinking in the formation of pedagogical intelligence. These methods served to develop students' critical thinking, systematically analyze their knowledge, and increase their ability to make independent decisions. The research methodology provided a comprehensive approach to measuring reflection and independent thinking, assessing pedagogical intelligence, and analyzing the results.

RESULTS

The importance of reflection and independent thinking in the formation of pedagogical intelligence was confirmed. Based on interviews and observations, it was found that students developed skills in analyzing their own knowledge and experience. At the same time, activities that stimulate independent thinking significantly increased students' critical approach and creative decision-making abilities. For example, as a result of analyzing students' reflective journals, it is clear that they are actively participating in evaluating their learning process and identifying their mistakes.

There is a positive correlation between a high level of pedagogical intelligence and the ability to think independently. On this basis, it is determined that students' critical thinking and reflexive activity skills are an integral part of the development of pedagogical intelligence. In particular, as a result of activities focused on independent thinking, students learned to solve complex problems with their own independent approach, which strengthened their creative and critical thinking.

Reflection in the process of developing pedagogical intelligence is effective at two levels: first, it allows students to evaluate their own activities and identify mistakes; second, it stimulates independent thinking. At the same time, the use of interactive methods and innovative educational technologies had a significant impact on increasing pedagogical intelligence. For example, group discussions, project work, and reflective exercises developed students' skills in independent decision-making and systematic application of their knowledge.[7]

The connection between pedagogical intelligence and reflective activity supports the intellectual and personal development of students. At the same time, independent

thinking turns the pedagogical process into an activity that guides students to a critical and creative approach, rather than just transferring knowledge. The study also showed that the role of the teacher is important in stimulating students' reflective and independent thinking skills.

The systematic use of reflection and independent thinking in the formation of pedagogical intelligence serves to improve the quality of education and maximize the personal intellectual development of students. Therefore, methodological approaches aimed at developing reflection and independent thinking in the pedagogical process contribute to the development of students' critical thinking, creative approach and independent decision-making skills. is considered an effective tool in strengthening.

CONCLUSION

This study aimed to determine the importance of reflection and independent thinking in the process of forming pedagogical intelligence. The results of the study showed that reflection helps students analyze their own knowledge and experience, identify their mistakes, and organize the learning process more effectively. At the same time, independent thinking allows students to solve complex problems with their own approach, make creative and critical decisions. The combination of reflection and independent thinking is manifested as a key factor in the development of pedagogical intelligence.

A high level of pedagogical intelligence has a significant impact on the personal and intellectual development of students. Reflective exercises and methods aimed at independent thinking serve to strengthen students' critical thinking and creative approach skills. Therefore, the role of the teacher in the modern educational process should not be limited to imparting knowledge, but should also include stimulating students' reflective and independent thinking activities and developing pedagogical intelligence.

The study also showed that innovative pedagogical technologies, interactive methods and project-based developments are important tools for the effective development of reflection and independent thinking. Group discussions, reflective journaling, problem-solving tasks and creative activities allow students to make independent decisions, systematically apply knowledge and form a critical approach. This serves to deeply form pedagogical intelligence and develop students' personal intellectual potential. As a result, the systematic use of

reflection and independent thinking in the development of pedagogical intelligence allows improving the quality of education, strengthening students' creative and critical thinking skills, and adapting them to the requirements of modern life. Therefore, methodological approaches aimed at stimulating reflective and independent thinking in the pedagogical process are considered an effective tool for strengthening students' knowledge and skills, supporting their personal development and increasing pedagogical intelligence.

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