



MODERN PEDAGOGICAL TOOLS IN THE DEVELOPMENT OF REFLECTIVE COMPETENCES

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Abstract

This article explains that the effectiveness of using modern pedagogical tools is closely related to the choice of the right methodological approach by the teacher. It is highlighted that an individualized approach is one of the most effective tools in developing reflective competencies, and that visual reflection methods (infographics, reflective diagrams, conceptual maps) are also actively used among modern tools.

Keywords: Pedagogical technologies, independent learning, reflexive journal, "Metacard" approach, metareflection, affective component, simplified reflection, motivation and reflection, critical thinking, reflection.

Introduction

In the field of education, modern pedagogical tools are increasingly playing an important role in the formation of students' reflexive competencies. Especially in the context of an academic lyceum, these tools allow not only to impart knowledge, but also to form a conscious attitude of the student to his/her own activities, to develop critical thinking, readiness for change, and independent decision-making competencies.

Modern pedagogical tools are understood not only as technological tools, but also as advanced forms of organizing education, training, dialogic methods, and a reflexive environment where the student is in the center of attention. In an



educational environment created on the basis of a person-centered approach, the following tools are particularly effective:

Reflective question-answer cards (for example, “What did I understand in today's lesson?”, “What aspects were difficult for me?”),

Reflective thinking in the process of collecting a portfolio (self-assessment page at the end of each work),

Multi-stage assessment sheets (diagnostic, current and final reflection),

Emotional diaries - the student analyzes his feelings,

Collaborative learning tables - assessing his own and his group friends' opinions.

It should be noted that an individualized approach to the development of reflective competencies is one of the most effective tools. Developing an approach based on each student's learning style, emotional sensitivity and experience increases effectiveness.

For example, in the process of studying chemistry, students are asked questions based on experience and asked, “What would I change if I did this experiment again?” creates a reflective environment. At the same time, reflective thinking is also encouraged through the exchange of ideas at the end of collective laboratory work.

Also, visual reflection methods (infographics, reflective diagrams, conceptual maps) are actively used among modern tools. These tools help to understand more through processing, organizing and analyzing information. From this point of view, it is an important task for academic lyceum teachers to develop a lesson design aimed at developing reflective competencies. In this case, the lesson plan should be aimed not only at imparting knowledge, but also at analyzing knowledge, self-assessment, understanding emotions and forming social thoughts. For example, methods such as “circle of thoughts”, “why?”, “what if?” force the student to think, which increases reflective activity.

Also, one of the tools that is important in developing reflective competencies is new assessment formats. Compared to traditional assessment, formative (process) assessment, self-assessment and peer assessment methods reflect reflective changes more deeply. These methods reveal not only the student's knowledge, but also the ability to justify his opinion, explain his decision, and be critical.



In conclusion, the effective use of modern pedagogical tools to develop reflective competencies in academic lyceum students depends on the teacher's didactic skills, methodological approach and the creation of a person-centered educational environment. It is these conditions that ensure the natural and continuous development of the reflection process.

Another important aspect of using modern pedagogical tools is the development of an educational model aimed at the formation of reflective competencies and its gradual introduction into the educational process. This model, as a rule, is based on the following main components:

1. Goal-oriented educational environment (reflective questions, the opportunity to freely express opinions);
2. Flexibility of methodological tools (according to the individual needs of each student);
3. Mechanisms of formative assessment and self-assessment;
4. Auxiliary pedagogical support and mentoring;
5. Tools that ensure the regularity of the reflection process (diaries, questionnaires, portfolios).

In such a model, the teacher is not only a provider of knowledge, but also a motivator of reflection, a guide to self-study. For example, in chemistry, questions such as “What would you have done differently?”, “What were the difficult or interesting aspects of the experiment for you?”, which are asked after laboratory work, activate reflective thinking.

Individualized didactic approaches

The individual approach takes into account the student's learning style, interests, psychological needs, and reflective capacity. For example, tasks that stimulate reflection can be given in the following forms:

- “A story about change” - the student provides a written reflection on how the change occurred;
- “My achievement map” - explains personal achievements, mistakes, and lessons learned in a portfolio;
- “What was most useful to me in today's lesson” - expresses his/her thoughts in a short note at the end of each lesson.



Reflection is formed not only through the process of internal thinking, but also through active communication in a team, group, and classroom. A communicative environment is an opportunity for students to freely exchange ideas, express their point of view, and strengthen their personal opinions through debate. Therefore, the creation of an open, supportive, and interactive communication environment in an academic lyceum is an important factor in the formation of reflective competencies.

For example, through methods such as “Think Around the Circle,” “Thought Table,” and “I Prove My Opinion,” students express their views, listen to the opinions of others, and revise their own conclusions. This leads to the strengthening of reflective analysis through dialogue.

Interaktiv vositalar asosida shakllanadigan reflektiv faoliyat

Interaktiv metod	Refleksiv vazifasi	Amalga oshirish shakli
“Fikrlar doirasi”	O‘z nuqtai nazarini asoslash va taqqoslash	Guruhli muhokama
“Qiyosiy tahlil”	Bir nechta yondashuvlarni solishtirish	Grafik, jadval asosida
“Kichik jamoa bahsi”	Qaror qabul qilish va javobgarlikni his qilish	Rolli o‘yinlar
“Post-it” savollar	Savol berish va javob topish orqali faollik	Rag‘batlantiruvchi yozuvlar bilan

Such tools provide psychological safety in the classroom, strengthen the individual approach and prepare a person adaptable to a changing life. At the same time, the role of the teacher also changes - he becomes not a giver of knowledge, but a guide, an organizer of discussion, an activator of reflection.

Through these methods, the student has the opportunity to compare his internal thoughts with external ones, to defend and rework his own opinion. As a result, not only knowledge is formed, but also a recognizable, analytical, independent learning person.

In modern educational conditions, the conscious formation of the student's personal development path and preparation for change is the content center of reflexive competencies. To ensure such development, it is necessary to create a



system of pedagogical strategies, metacognitive approaches and individualized tasks.

For example, by providing students with tasks based on the principle of "learning to learn", they understand, evaluate and correct their learning activities. In this way, reflection becomes a permanent internal mechanism.

The following methodological approaches can serve as the basis for personal reflection:

- Setting and monitoring SMART goals;
- The "What happened - what did I learn - what will I do now" model (WWA);
- Self-observation logbook;
- Metareflection methods - reflection on oneself [39].

Such approaches form the student not only as a receiver of information, but also as an analyzing and active subject.

Quotes from foreign experience. In foreign practice, in particular, in the experience of Finland, Canada, Singapore and Norway, the development of reflexive competencies is seen as a separate direction. For example:

In Finland, the student evaluates himself on the eve of each lesson through the "Opiskelupäiväkirja" (study diary).

In Canada, the student documents his knowledge, feelings and strategies throughout the year through the "learning portfolio".

In Singaporean schools, the teacher and student reflect on each other in the classroom through the "reflective dialogue" method.

In Norway, monthly written reflections, called "self-reviews", are shared with the class teacher.

These experiences can also be effectively implemented in the Uzbek education system, especially at the academic lyceum stage.

In modern pedagogical approaches, the learning process, adapted to the personal needs, interests and intellectual potential of students, is considered one of the main priorities. In particular, the role of individualized educational tools in the formation of reflective competencies is invaluable. Through these tools, the student establishes control over his/her own educational activities, understands and evaluates them.



Individualized educational tools include:

Reflective diaries and personal portfolios: written documents kept by each student, reflecting his/her thoughts, successes and difficulties. Self-assessment questionnaires: the student analyzes himself through questionnaires based on metacognitive assessment criteria for the activity.

Customized tasks: a system of independent tasks developed in accordance with the student's level of preparation and learning style. Personal reflection maps: visual tools that show the development of thoughts and decisions (based on mind-mapping). Through these tools, students master the following reflexive processes:

- self-observation and perception;
- analysis of educational activities and understanding of problems;
- formulation of alternative decisions;
- planning and improvement of activities.

The following factors in the pedagogical environment affect the formation of reflexive competencies:

- an atmosphere of communication based on openness and trust;
- readiness to value and evaluate student opinions;
- educational materials and methods that allow for critical questions;
- an environment that creates conditions for a free exchange of ideas in the classroom;
- an active interactive learning process.

Therefore, the teacher's reflective culture, communicative competence, and empathetic approach form an internal need for independent thinking and analytical activity in the student.

For example, the 2021 pedagogical monitoring report of the University of Helsinki notes that the activities of reflective teachers increase the quality of knowledge in students, as well as metacognitive activity. Based on this approach, if the teacher himself does not have a reflective approach, it may be almost impossible to form this competency in students.

At the same time, in Uzbekistan, teachers' activities are being organized on the basis of reflexive principles through many pilot programs in the academic lyceum system - "Pedagogical laboratories", "Teacher-mentoring" and "Assessment



based on mutual observations". This, in turn, shows that it is giving significant results in developing student reflection.

In conclusion, high efficiency can be achieved in an academic lyceum by rationally using modern pedagogical tools, integrating them into the reflection process and making the student responsible for his own learning. When these tools are chosen based on a personal approach, the path to deeper reflexive changes is opened for each student

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