SOME INNOVATIVE EDUCATIONAL TECHNOLOGIES TO CREATE ADAPTIVE SCHOOLS

Risbay Djuraev
Uzbek Scientific Research Institute of Pedagogical Sciences, Tashkent, Uzbekistan
uzpfiti2005@mail.ru

Received 06-APR-2016; Accepted 10-MAY-2016; Online 01-JUL-2016

Abstract. The world around is changing. Our life changed. Society needs vary. A modern education changes too. The school also changes. The school improvement significant role belongs to the idea of building an adaptive school. Adaptive school takes into account the ability of all students. Adaptive School is focused on meeting the needs of a variety of cognitive and interests of students. This school provides conditions for their vital self-determination and self-realization. The goal of adaptive school is to create an educational environment that helps to ensure that every student can realize itself as the subject of his own life, activity and communication. Creating Adaptive School is associated with the expansion of the practice of developing adaptive educational technologies. Much preparatory work should be carried out at a school for the introduction of new educational technologies in the educational process. Applying innovative pedagogical technologies, each teacher contributes to the creation of adaptive educational environment at the school.

Keywords: adaptive school, innovative pedagogical technologies, modern education, school, student, the creation of educational environment.

Everything flows, everything changes: the world around us changes, our life changes, requirements of society change and the view of modern education, and as a result changes, the school changes.

In search of the directions of improvement of mass educational institution the significant role belongs to the idea of creation of the adaptive school considering possibilities of all learners, focused on satisfaction of their various informative requirements and interests, providing conditions of their vital self-determination and self-realization.

The objective of adaptive schools is to create an educational environment conducive to ensure that every learner can realize himself as the subject of his own life, activities and communication.

The creation of adaptive school is connected with the solution of the following problem – the increased use of developing adaptive educational technologies that will help every teacher to keep up with the times.

Before starting to implement new educational technologies into the educational process, the school should be carried out great preparatory work.

Everything begins with studying of the learner. Depending on a psychosocial type of people differently perceives information, thinks and makes decisions. For this reason learners give preferences to different styles of training and communication. From here need to know psychosociotype each learner and to consider his features in the process of teaching follows. With it the teacher has to be helped by the school psychologist.

Driving force of activity – motive therefore them it is necessary to study also the nobility. It is the following stage on the way of introduction of innovative educational technologies. For creation of the motivational sphere it is possible to offer educational tasks in playful way, to include the learner in informative games and competitions. To create conditions for emergence of internal requirements to the doctrine. To disclose the value of knowledge and independence. To provide conditions for creative self-realization of the individual. To offer system of creative tasks.

Further it is necessary to plan all activity and to develop the complex and target program in which to reflect the main activities of pedagogical collective on this problem.

In pedagogical activity of teachers such technologies as can find application: multi-level and modular training, collective ways of training, method of the educational project.

Naturally, it is necessary to begin with one technology.

Let us consider the peculiarities of multi-level training is the foundational teaching technology that is the basis for other innovative technologies.

The purpose of multi-level learning – to provide learning each learner in the zone of proximal development on the basis of his subjective experience.
The teacher is required to perform the following major steps:

- motivation and stimulation of cognitive activity of learners;
- the organization of independent work of learners at different levels (all children can learn independently or with metered assistance should be given to them);
- mixing front and general class forms of work to the minimum necessary.

Applying the technology of multi-level learning, the conditions under which each learner works at their own level, in their zone of proximal development. Assignments are made so that he necessarily handled, which helps each learner to improve and develop their individual characteristics.

The teacher should closely monitor the development of the learner, in order to transfer it to the next level, in a zone of actual development.

Multi-level training provides a chance for every learner to organize their learning so that maximum use of their capabilities, especially training.

In the structure level differentiation of training divided into three levels.

**Level 1** (basic) involves the reproduction and memorization of the content of the material studied. The learner at this level should be able to show, to call, to recognize, to learn, to define, to retell.

**Level 2** (software) includes the organization practical action: the application of knowledge to familiar situation and on the model, perform actions with clearly defined rules, the application of knowledge-based algorithm scheme. The learner should be able to explain, to make something according to a certain scheme, to relate, to describe, to compare, to follow the rules (e.g. when measuring), etc.

**Level 3** (advanced) offers the application of knowledge in unfamiliar situations. The learner should be able to make oral and written responses to the problem question, to express an opinion, essential features, analyze the information, to bring their own examples and to justify their evaluation, etc.

The learner chooses the level at which he will work. Here the teacher should motivate the learner to really assess their capabilities, not overstated and not understated. It is easy for the teacher, regularly employ this technology.

When developing lessons with application of any innovative pedagogical technologies it is expedient to make the technological table according to this section of a course in the beginning.

It is necessary to begin with fragmentary use of technology at separate stages of a lesson, gradually increasing the volume of independent cognitive activity of learners. Learners have to get used to features of technology: to learn is comprehended to perform the offered operations, to work in time, to control the actions.

A teacher should master the methodology of designing multi-level tasks. There are certain requirements for the preparation of multi-level tasks.

Firstly, the task must be directed to commit any actions which the teacher could control (underline, circle, write, can write...).

Secondly, cards with different tasks should be foreseen possible difficulties of the learner and should be giving to help to overcome them (in the form of hints, explanations, references...).

Thirdly, the card must be provided for self-test in an explicit or concealed (encrypted) form.

Fourth, the tasks should correspond to the level of difficulty. Card level 1 – a card-tutorial.

Note the advantages of a lesson using the technology of multi-level training:

- each learner produces knowledge independently, working at their level of learning in the zone of his proximal development; knowledge, obtained independently, are more deeply assimilated by the learner;
- increases the motivation of the learner and, therefore, interest in the subject;
- any learner at a lesson won’t receive “2” (if tasks are made correctly, each learner has to cope with them if learners don’t cope with independent performance of tasks, so tasks have been made incorrectly);
- the presence of a reflection (self-assessment) at each stage of the lesson;
- the growth in cognitive activity, the desire of a learner to move to a higher level;  
- increase knowledge and skills of learners;
- the growth of professional competence of teachers;
- review the pedagogical concept of the teacher;
- and as a result, the learner and teacher enjoy the learning process.
The following technology which can begin to be studied is a technology of modular training which will transform educational process so that the learner independently is (in whole or in part) trained according to the target individual program.

The core of modular training is a training module that includes: complete block of information, targeted program of action of the learner; gives recommendations (advice) the teacher for its success.

Modular technology provides individualized training: content of training, the pace of assimilation, the level of autonomy, methods and ways of teaching, ways of control and self-control.

The aim of modular training – promote the development of learners’ autonomy, their ability to work according to individual methods of elaboration of training material. It is based on the following original scientific ideas.

1. Modular training is based on the activity principle: only then educational contents are consciously acquired when it becomes a subject of active actions trained, and not incidental, but system. Therefore, developing tasks, the teacher leans on structure of the doctrine, focuses school learners on the purpose of educational activity, motivates its acceptance, defines system of learner’s self-checking and a self-assessment, providing, thus, self-governed reflexive educational process.

2. Modular technology is based on the ideas of developmental teaching: if the learner performs the task dosed with the help of a teacher or classmates (cheering, landmark, etc.), he is in the zone of his proximal development. This approach contributes to the maturation of functions of the child's mind: what he does with others, tomorrow will be able, i.e., one cycle is completed, the learner enters the zone of actual development, and the coil is unwound at a new level.

3. In modular training that is done through differentiation of the content and dose of aid the learner, as well as organizing training activities in various forms (individual, group, in pairs with the permanent and removable part).

4. In the basis of modular technology is programmed instruction. It has: clarity and consistency of action, activity and independence of the learner, the individualized temp of work, regular verification of results (intermediate and final), self control and inter-control.

The intensive nature of the technology requires optimization of the learning process, i.e., to achieve the best result with the least expenditure of effort, time and money.

**Sequence of actions of the teacher by drawing up the module.**

When developing modules it is necessary to proceed from the known principles:

- The private didactic purposes of educational elements in the set provide achievement of the integrated module purpose; realization of the integrated purposes of all modules in turn leads to the complex didactic purpose of the modular program.
- The realized feedback – a basis of controllability and controllability of process of assimilation of knowledge. At the same time entrance and output control more rigid, is carried out by the teacher, and current and intermediate (on a joint of educational elements) – soft, takes place in a look most and mutually control of learners.
- Teaching and learning material is available, specifically, expressive, in a dialog form.
- When developing the module adhered to the logic of absorbing knowledge: perception, understanding, retention, application, generalization and systematization.
- The module structure must comply with the logic of the training sessions of one type or another.
- The system of actions of the teacher and the learner is in the action sequences when compiling modular programs.

First acting teacher.

The first step is to identify the purpose of the integrating module.

The second step is to split the training elements in accordance with the logic of this or that type training.

The third step is the formulation of objectives of each training element.

The fourth step – determining the content of each training element.

The fifth step – a formulation of recommendations (advice) the learner.

Experience showed that the following form of the educational element (EE) is most convenient:

<table>
<thead>
<tr>
<th>№</th>
<th>Training material with the indication of tasks</th>
<th>The advice of the teacher</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

DOI: 10.15550/ASJ.2016.02.090
Creation of educational modules submits to system of the general requirements to tasks, to activity of learners and the teacher.

Requirements to tasks:
• carry out a continuity of intra subject and intersubject communications; are differentiated according to the contents and level of informative independence; focus on search of problems and their decisions; reflect the mechanism of assimilation of knowledge; include repetition studied (drawing up tables, comparative characteristics, history other); are integrated by the module purpose

Requirements to activity of learners:
• takes place in the zone of proximal development; focus on self-management and inter management, forms communication skills; provides the opportunity to efficiently allocate time; implements the reflective abilities of the learner in each session.

Activity of the teacher changes essentially. Its main task – to develop the modular program, modules, and on occupation he motivates, will organize, coordinates, advises, controls, i.e., using the potential of modular training, exercises reflexive control of training.

Obtained schematically a modular program can be represented as follows:

The accepted designations:
CDP – complex-didactic purpose;
SM – subject module;
TM – training module (lesson stage);
EE – educational element (task).

Applying new innovative pedagogical technologies at the lessons, each teacher promotes creation of the adaptive educational environment at the school.

References