

Methods of Teaching Engineering Sciences on the Subject of "Tape Transmissions"

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Enter. Since the first years of independence of the Republic of Uzbekistan, special attention has been paid to the improvement of the field of education.

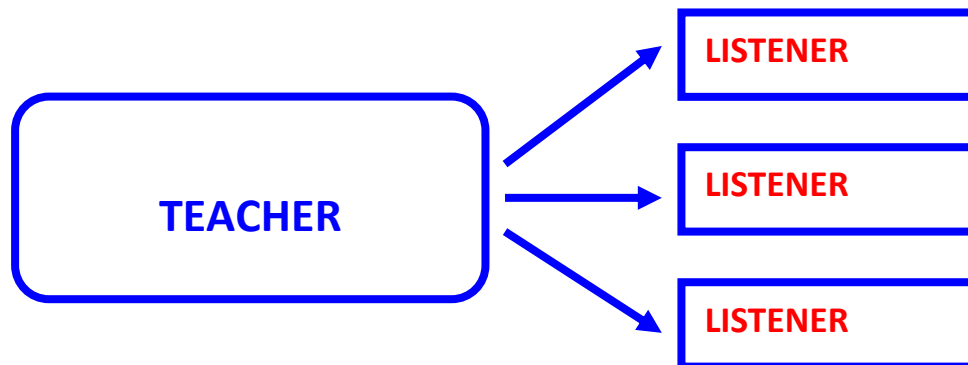
During a historically short period of time, great work has been done in this field in our country, and even today, work in this field is being continued intensively.

The introduction of interactive forms of teaching is one of the important directions of improving personnel training in a modern educational institution. Today, it is not enough for a teacher to have a deep knowledge of his specialty and impart a large amount of knowledge to an audience full of young people who are hungry for knowledge. According to the results of many studies, a new approach to teaching, the use of active approaches in teaching students is one of the most effective ways of imparting knowledge. In simple words, students easily perceive, understand and remember the material they have learned by being actively involved in the learning process. Based on this, today the main methodological innovations are related to the use of interactive teaching methods.

The main part. The teacher, along with providing new knowledge, invites the listeners to independent research. The activity of the teacher gives way to the activity of the listeners, it is the task of the teacher to create conditions for the initiative of the listeners. The teacher abandons the role of a specific filter that transmits educational information and acts as an assistant in working with a certain source of information.

Here, every teacher should pay attention to the following when forming the ability of students to remember, analyze, apply or perform the educational material:

There are three general forms of teacher-student interaction in the educational process, which are widely used. They are:



- 1) slow methods;
- 2) active methods;
- 3) interactive methods.

Each of these has its own characteristics.

Slow method – this is a form of interaction between the teacher and the listener, in which the teacher is the main person in the action and controls the course of the lesson, and the listener participates in the role of a weak participant of the lesson, obeying the instructions of the teacher.

In slow-form lessons, the interaction between the teacher and the listener is carried out by means of surveys, independent control work, tests, etc. From the point of view of the effectiveness of learning material and modern pedagogical technologies, the slow method is less effective, but despite this, this method has a number of advantages. It is the teacher's easier preparation for the lesson and the possibility to deliver more educational material to the audience within the limited time of the lesson.

Active method – this is a form of interaction between the teacher and the listener, in which the listener and the teacher act together in the training process, and the listener is not a passive participant, but an active participant. If the passive method requires an authoritarian style of collective action, the active method requires a democratic style.

Many consider active and interactive methods to be equal, but despite their similarities, they are different from each other. The interactive method can be considered as a modern form of active methods.

Interactive method. Interactive («Inter» – o'zaro, «act» – harakat qilmoq) – to act together. Compared to the active method, the interactive method is directed not only to the teacher, but also to the active activity of the audience and to increasing the activity of the audience during the training process. In interactive training, the role of the teacher is aimed at directing the activity of the audience to achieve the goal of the training.

Conceptual table - It provides a comparison of two or more aspects of the studied phenomenon, concepts, and ideas. It develops the skills of systematic thinking, structuring and systematization of data.

They get acquainted with the conceptual table of rules. They determine the comparables, distinguish the characteristics according to the comparisons. They fill in the conceptual table individually or in small groups.

- *Comparable in length (ideas, theories) are placed;*
- *Various descriptions are written for the bed comparison.*

NAME	Tariffs, categories, features, etc.			
	Distortion	Structure	Motion transmission	Where to use
.....
.....

- **The procedure and regulation of the assignment is as follows.**
- ✓ Discussing the method variation and the sequence of execution steps, choosing a specific example - 5 minutes
- ✓ Completion of the presentation sheet (jointly or in groups) under the leadership of the captain - 10 minutes
- ✓ Presentation of one's work - up to 5 minutes.
- ✓ Evaluation of other groups during their exit.

Reporting the evaluation results to the training manager.

Mechanical transmissions	Features and more				
	Turlari	Types	Body price	Oiling	Weight
Belt drive	flat, pone-shaped, toothed, circular band	noiseless	cheap	not required	light
Chain drive	gear, roller	noisy (if not lubricated)	expensive	required	heavy

The conceptual table can be effectively used in the teaching of the topic "Belt transmissions". In this case, the specific characteristics of the transmission types are well preserved in the students' memory.

Ways and means of data analysis, comparison and comparison.

T is a table - bita for comparing the aspect of the concept (information) or comparing them (yes/no, yes/against). Develops critical observation. The rules of the T-table are introduced. It is written individually - it is filled out in order (in pairs) in the allotted time, the reasons are written on the left side, and on the right side, on the left side, the expression is opposite - opposing ideas, factors, etc.

This table can also be used to teach the topic "Mechanical transmissions" in the subject of machine detailing. With the help of this table, it is possible to study the advantages and disadvantages of transmissions, as well as compare them by taking two transmissions on the subject. This will certainly strengthen the students' thinking and comparison-comparison skills.

BELT DRIVES

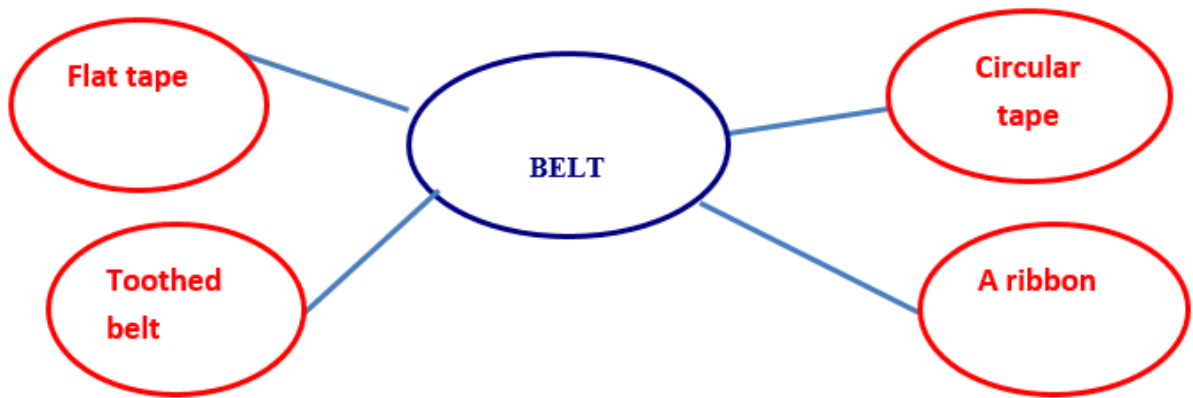
Advantage	Disadvantage
• smooth operation	• the size of the dimensions
• noiseless operation	• relatively small power transmission
• lack of lubrication	• short service life (1000-5000 hours)
• cheap details	• that the number of transfers is not constant
• easy assembly	• the need for additional details (roller)
• adjustment of the number of transmissions	• the need to be careful of oil accumulation
• in relation to the chain drive:	
1. High speed operation	
2. no damage to details when the tape is broken	
• in relation to gear:	
transmission of motion over long distances	

Cluster (Cluster-set, link) - a way of creating an information map - gathering ideas around some main factor to center and define the essence of the whole structure.

Cluster formation rule;

1. Write down everything that comes to your mind. Don't discuss the quality of their ideas, just write them down.
2. Ignore spelling mistakes and other factors that stop the letter.
3. Do not stop writing until the allotted time is up. If you suddenly stop coming up with ideas, then keep drawing on paper until new ideas come.

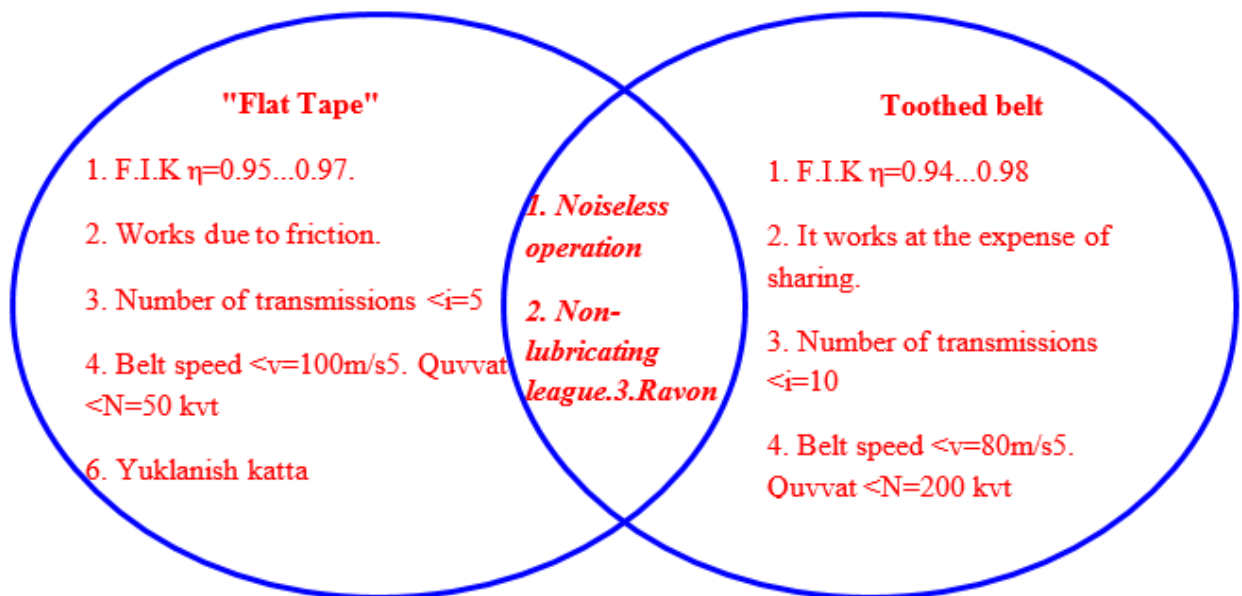
Filling the cluster.



Classification of belt drives

Venn Diagram - Used to compare or contrast aspects 2 and 3 and what they have in common. Two or three circles, ellipses are used in this.

Comparing, comparing, and analyzing the mechanisms presented in the topic will definitely enrich students' understanding and imagination about mechanisms.



Summary. Therefore, interactive educational technologies and interactive methods, which are an important element of its development, ensure a change in the indicators of the organization of the educational process. After all, modern education requires constant updating of the purpose, content, form, methods and tools of education in connection with the development of science and technology. In addition, the requirements for improving the activities of educational institutions are increasing. This, in turn, requires consistent implementation of advanced, including interactive, educational technologies and methods into the education system.

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