



NEW METHODS OF TEACHING HYDRAULICS IN ENGINEERING FIELDS AND ENSURING INCLUSION IN EDUCATION

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Abstract

This in the article engineering in education hydraulics science of teaching modern pedagogical approaches, innovative technologies using training process efficiency increase methods and opportunity limited to students customized inclusive education conditions create issues illuminated.

Keywords: Hydraulics, engineering, innovation technology, inclusive education, virtual laboratory, modern approach.

Introduction

Today on the day education in the system face giving reforms engineering sciences, in particular, hydraulics science new in teaching approaches demand is doing. This with together, all students, including the opportunity limited the youth to education attraction It is also important to the point is rotating [1,2,3].

Engineering in the field's hydraulics science training in the process place incomparable is a car mechanisms performance, energy efficiency in increasing separately importance profession will reach. Hydraulics – fluids movement and balance learner It is an important science, it is used in mechanical engineering , construction , energy and like agriculture engineering in the fields wide Hydraulic systems construction right design and from them effective use for this science is deep acquisition necessary .

In teaching this subject, science topics three to the department become is studied .

- ✓ Hydrostatics
- ✓ Hydrodynamics
- ✓ Hydropneumorrhoids



Each department mastery condition was concept and a principle there is.

On topic new knowledge and skills to students in delivery following modern teaching from the methods wide use possible:

- ✓ **Interactive Methods:** “Case-study”, “Brainstorming”, “Cluster” methods through practical issues solution will be done.
- ✓ **Virtual labs:** Simulation and animations through hydraulic systems is modeled.
- ✓ **Video lessons and AR/VR technologies:** Fluidity stream in 3D format observation opportunity is created.
- ✓ **STEAM approach:** Technology, Engineering, Mathematics and art integration through student's creative thinking is developed.

Inclusive education is all children, this including physical, mental or social opportunity limited students for one kind under the circumstances, together education to take provider This is an educational approach system every one child's recognizing the opportunity and taking it to develop focused [4,5,6].

Inclusive education main purpose of the following consists of will be:

- ✓ Everyone the individual needs of the student into account to take.
- ✓ Physical and psychological obstacles eliminate to be
- ✓ Equal opportunities create

Inclusive of education main principles the following:

1. **Equality and justice** – all to students one kind good quality education to take opportunity create.
2. **Flexibility** – learning programs every one child's to the need adaptation.
3. **Community** – teachers, psychologists, parents and other of experts cooperation.
4. **Support** – to the reader necessary help providing tools.

Inclusive in education teacher's role:

- ✓ Individual approach based on the lesson organization to be.
- ✓ Special education needs was children with work styles to know.
- ✓ In collaboration work: parents, dialectologist, speech therapist, psychologist with.

Latest in years Uzbekistan inclusive education develops according to row legal and practical measures is watching. Special schools, supportive classes, methodical manuals is being created [7,8].



Own interests based on engineer to be wanted opportunity limited students also know and skills increase for the purpose inclusive education principles current It is also intended to caught .

Opportunity limited students for of education customized forms current in the process of following tasks done increase necessary:

- ✓ **Digital textbooks** – in braille texts, audio and video materials.
- ✓ **Supportive environment** – technical tools (screen reader programs, special keyboards).
- ✓ **Individual approach** – everyone to the student suitable training load, assistant lessons organization to be
- ✓ **Online platforms** – remote education through education to take opportunity expands.

Hydraulics science effective teaching for innovative technologies current to grow necessary [9,10]. Also, in education inclusiveness principles action to do through every one to the student equal conditions create possible. Such approach not only education quality increases, maybe scientific and technical also an impetus for development will be.

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