Course Project

TEACHING FLUID MECHANIC TOPIC TO EDUCATION STUDENTS & ELEMENTARY STUDENTS

Project overview

- The 1st part of this project was to teach the education student the fluid mechanics topic so they could teach the elementary student.
- Then the engineering student worked together with the help of the education students to produce an interactive activity that would demonstrate the fluid mechanics concept that was going to be taught to the student.
- Help the education student with the technical data that was being used for the lesson plan was going to be used to teach the student.
- Worked with the education student to teach the student the fluid mechanic topic

Presentation at the school

THE FIRST PRESENTATION THAT WE DID WAS ABOUT HOW FLUID MECHANIC CONCEPT APPLIED TO DIFFERENT REAL-WORLD APPLICATION. AND THE STUDENTS PICKED THEIR TOP 3 CHOICES. FROM THERE WE MADE THE DECISION DO FOCUS THE FLUID MECHANIC TOPIC ON MILITARY JETS.

Presentation to the education students

THE ENGINEERING STUDENTS GAVE A LESSON ON DIFFERENT FLUID MECHANICS TOPIC TO THE EDUCATION STUDENTS.

THE FLUID MECHANICS TOPIC THAT WAS CHOSEN WAS TO TEACH THE STUDENT WAS:

BERNOULLI'S EQUATION AND HOW IT CENTERED AROUND HOW AIRPLANE FLY.

WE TAUGHT THE STUDENT WAS AN AIRFOIL WAS.

THE STUDENTS LEARNED WHAT LIFT, DRAG, PRESSURE WAS.

EXPLAINED HOW VELOCITY AND PRESSURE AFFECTED EACH OTHER.

THEN THE STUDENT DESIGN THEIR OWN AIRFOIL WITH THE INFORMATION THEY LEARNED.

The airfoil out of play dough

THE STUDENT FIRST DESIGN AND THEIR OWN AIRFOIL OUT OF PLAYDOUGH INDIVIDUALLY.

The airfoil out of foam

THEN AFTER THE STUDENT DESIGN THEIR AIRFOIL OUT OF PLAYDOUGH THEY THEN GO INTO GROUPS AND COLLAB WITH EACH OTHER ABOUT THEIR PLAYDOUGH AIRFOIL DESIGN AND PICK WHAT THEY THOUGHT WAS BEST ON EACH AND PUT THOSE IDEAS INTO ONE AIRFOIL THAT WAS DESIGN OUT OF FOAM.

Measuring lift

PREVIOUSLY OF THE STUDENT COMING TO THE SCHOOL THE ENGINEERING STUDENT DESIGN A STAND THAT WAS TAPED TO A DIGITAL SCALE. THE AIRFOIL WAS INSERTED ONTO THE STAND AND A FAN BLEW ACROSS THE FOAM AIRFOIL THE SCALE READ A NEGATIVE NUMBER WHICH INDICATED THAT THE AIRFOIL WAS LIFTING IN THE UPWARDS DIRECTION.

Redesign

AFTER THE STUDENT RECEIVED THEIR DATA FROM THE FIRST ATTEMPT. THEY GOT TOGETHER AND MADE IMPROVEMENT SO THEY WOULD GET MORE OF A LIFT ON THE SECOND ATTEMPT OF MEASURING THE LIFT.

Small Projects

TO HELP WITH THE VISUAL, THAT WITH ENOUGH WIND SPEED ACROSS AN AIRPLANE IT WOULD CREATE AN ENOUGH LIFT TO KEEP IT IN THE AIR. THE STUDENT RECEIVE SMALL FOAM AIRPLANE KIT THAT THEY PUT TOGETHER AND ATTACHED A STRING ON EACH WIND. THEY PUT THE PLANE IN FRONT OF A FAN AND HELD IT BUY THE STRINGS AND WATCHED IT STAY LIFTED IN THE AIR.

Conclusion

- THE ENGINEERING STUDENT TAUGHT THE EDUCATION STUDENTS FLUID MECHANICS TOPICS
- A FLUID MECHANICS TOPIC WAS TAUGHT TO THE ELEMENTARY STUDENT
- THE ELEMENTARY STUDENT USED AN INTERACTIVE ACTIVE TO GRASP THE TOPIC BETTER.

What I learned

THIS PROJECT WAS VERY BENEFICIAL WITH PREPARING ME FOR WHAT MAY OCCUR IN LIFE:

HOW TO EXPLAIN A CONCEPT TO SOMEONE WHO DOESN'T HAVE ANY PRIOR KNOWLEDGE OF THE CONCEPT.

HOW TO PROPERLY COMMUNICATE TO OTHER.

HOW TO HANDLE DISPUTES THAT MAY HAPPEN BETWEEN CO-WORKS.

IT HELP ME BECOME MORE CONFIDENT IN HANDLING AND SOLVE PROBLEM THAT MAY COME UP.