

1. President - local Technical Community College.

Key Quotes:

- It now takes 3-3 ¹/₂ years to get a typical student to complete what was a 2 year associate degree.
 - 1 to 1 ½ years of "remediation" now required to get student up to college readiness
- Back in the 1950s approximately 20% of the jobs required a 4 year degree or higher, today 20% of the jobs required a 4 year degree or higher. Back in the 1950s 15% of the jobs required a 2 year degree or certificate, today 65% of the jobs required a 2 year degree or certificate.
 - Only 15% of today's jobs are unskilled labor jobs.
- Current Accreditation process is like the "Fox Guarding the Hen House". Educators set the rules to keep successful business professionals out of the teaching ranks.
- When creating a powerful board CEOs can make things happen, accept no substitutes.
- Leadership is key, good schools have good leaders, great schools have great leaders.
- 2. Vice President local Community College.

Key Quotes:

- 60% of students applying for STEM degree programs require remediation in math and science.
 - 40% of students require remediation in reading.
- 3. PhD State University

Key Quotes:

- Success in teaching STEM requires having students that want to learn.
- 4. PhD State University

Key Quotes:

- You must have students that want to learn.
- 5. Chancellor State University Key Quotes:
 - The STEM Middle School has undergone an amazing transformation. From worst to best in 5 years.
 - To have a STEM Middle School that mirrors the demographics of the community with 1,100 students and a waiting list is a tremendous accomplishment.
 - We need to study it and figure out how to replicate their success.



6. Retired Dean- Medical School.

Key Quotes:

- Historically this region has not valued education...it simply was not needed to work on an assembly line in a factory
- 7. Vice President Local Community College <u>Key Quotes:</u>
 - *Middle School grades are the critical grades to win/lose STEM interest for students.*
- 8. Ph.D. Physics Local Private University.

Key Quotes:

- Once interest is lost, it is difficult to re-engage because the curriculum is cumulative.
- 9. Graduate Student Manager- State University.

Key Quotes:

- During the last 20 years the body of biology knowledge has doubled 4 times
- 10. Assistant Dean Medical Education, Private University's School of Medicine. Key Quotes:
 - "Problem-based learning (PBL) is student-centered...Students learn about a subject in the context of complex, multifaceted, and realistic problems.

Working in groups, students identify what they already know, what they need to know, and how and where to access new information that may lead to resolution of the problem.

The role of the instructor is that of facilitator... asking probing questions ... providing appropriate resources... leading class discussions, as well as designing student assessments.

Unlike traditional instruction, PBL actively engages the student in constructing knowledge in their own mind by themselves, and thus addresses many of deficits of traditional classroom where knowledge is expounded by an instructor.

Characteristics of PBL are:

- Learning is driven by challenging, open-ended, ill-defined and illstructured problems.

- Students generally work in collaborative groups.

- Teachers take on the role as "facilitators" of learning."