About You

This survey is intended to gather opinions about the use of Shared Teaching Materials for   Manufacturing Processes in related courses.

The National Science Foundation (NSF) awarded a grant to Drs. Wysk (NC State University) and Kremer (Iowa State University) to conduct three workshops to investigate "Shared Teaching Materials for Advanced Manufacturing" (STAM). The purpose of the workshops was to gather ideas, identify roadblocks and assess the utility of creating a *Repository* for manufacturing teaching materials. The *Repository* would hold print modules/text chapters, presentation slides, laboratory exercises, quizzes, tests, homework, and video presentations related to a variety of manufacturing topics. The repository would be either free or could be used for a minimal cost by both students and faculty.

To date, much of the information gathered has come from a "teacher's perspective" for using a repository. At the second workshop, it was suggested that a "student perspective" was equally important for this concept to thrive. The following survey is intended to gather student input. The survey should take approximately 10 minutes to complete.

About You

Class status:

- ○ Senior
- ○ Junior
- ○ Sophomore
- ○ Freshman
- ○ Other [   ]
- ○ Graduate student

Which best describes your major?

○ Industrial engineering

○ Mechanical engineering

○ Manufacturing engineering

○ Other [＿＿＿＿＿＿＿＿]

What is your GPA?

○ < 2.5

○ 2.5 - 2.99

○ 3.0 - 3.49

○ 3.5 - 4

About You and Your University

Which best describes your college or university?

○ Community college

○ University- small (under 8,000 students)

○ University- large (over 8,000 students)

○ Other [＿＿＿＿＿＿＿＿]

I/We currently use the following book to teach manufacturing processes

○ Groover

○ Degarmo, Black, Kosher

○ Kalpakjian

○ Other [＿＿＿＿＿＿＿＿]

The course that I have taken (or am currently taking) has:

○ No laboratory experience for students

○ Some laboratory experience for students

○ Extensive laboratory experience for students

Utility

If a repository of existing materials for advanced manufacturing was available for university instructors to utilize, it would:

○ Significantly improve the quality and content of the course

○ Somewhat improve the quality and content of the course

○ Remain about the same quality

○ Somewhat decrease the quality and content of the course

○ Significantly decrease the quality and content of the course

 Would a repository improve a student's educational experience in manufacturing?

○ No! I am firmly against using openly shared material for coursework

○ Yes, I would enjoy browsing new manufacturing content to see new production methods and utilize evolving materials

○ I do not think that a repository would significantly alter the quality of a course

If a Repository of existing materials for advanced manufacturing was available for university instructors to utilize, it would:

○ Significantly increase the breadth of material that could be covered for the course

○ Somewhat increase the breadth of material that could be covered for the course

○ Neither increase nor decrease the breadth of the course

○ Somewhat decrease the breadth of material that could be covered for the course

○ Significantly decrease the breadth of material that could be covered for the course

Student Perspective

Students enrolled in a course that utilizes a repository, will likely:

○ Have far better/easier access to timely materials

○ Have a little better/easier access to timely materials

○ Have the same access to materials

○ Have a little worse access to timely materials

○ Have far worse access to timely materials

Because of frequent updates to a repository, students enrolled in a course that utilizes a repository, will likely:

○ Be exposed to far more current and timely materials

○ Be exposed to somewhat more current and timely materials

○ Have the same exposure to timely materials

○ Have a somewhat diminished set of current and timely materials

○ Have a far more diminished set of current and timely materials

As a general rule for engineering courses:

○ Traditional textbook courses best fit my learning needs

○ Flip classes where lecture materials are delivered outside of a classroom best fit the way that I learn

○ Non-lecture courses where a variety of web resources are used best fit the way that I learn

For engineering courses:

○ A laboratory component in a course strongly reinforces the material for me

○ Laboratory components are okay, but they take a lot of time

○ Laboratory activities are not necessary for engineering courses

○ Videos demonstrating product and process features serve students more effectively than labs.

Students enrolled in a course that utilizes a repository, will likely:

○   Have a far better experience in taking a course due to timely materials and shared exams and quizzes

○   Have a somewhat better experience in taking a course due to timely materials and shared exams and quizzes

○   Have about the same experience as participating in a traditional course

○   Have a somewhat worse experience in taking a course using the repository

○   Have a far worse experience in taking a course using a repository

If the repository contained videos and data from lab experiments that would illustrate concepts I would:

○   Not need or use them

○   Welcome the opportunity to use content as appropriate for my course

○   Use them only if they are assigned as part of homework and testing

The repository should be designed for use primarily on:

○   A workstation computer

○   A tablet or notebook computer

○   A phone

○   All of the above

In a repository-based course, I would primarily use:

○   A workstation computer

○   A tablet or notebook computer

○   A phone

○   Materials printed from the repository

 I prefer course materials to be broken into small chunks that can be consumed in:

○   Less than 10 minutes

○   10 - 20 minutes

○   20 - 30 minutes

○ Over 30 minutes

○ Does not matter

I would be willing to pay _____ to use and support the electronic repository if it replaced a book:

○ $0; must be free

○ Less than $10

○ $10 - $20

○ $20 - $30

In my opinion, using a focused technical repository in advanced manufacturing courses will: (pick all that apply)

☐ Make course work even more difficult and complex.

☐ Have little effect on technical courses.

☐ Improve the overall course experience.

☐ Reduce cost for students taking technical courses

☐ Potentially change the way technical courses are taught.

Thank you for completing this survey. Student input is critical for the develop

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