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Should This Just-in-time Competency-based Skill-builder Web App Go Open?

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Should JUICE Go Open?

Mary Ann Perry  ✞  2018 Northeast OER Summit

just-in-time, contextualized, and empowering academic skill building
Supporting students academically
- Adult students working full-time
- Pell-eligible
- Many first generation to college
- Diverse; avg. age 34 – 37

Program:
- SNHU’s College for America
  Associate’s degree online
- Flexibly paced
- Project-based
- Mastery learning
- Advisor/Coach

Biggest academic skill gaps:
- Writing
- Logical argument
- Critical reading
- Basic math and probability

Based on:
- Student writing samples
- Project evaluations
- Rubrics causing highest re-submissions
Instead of...

- Trying to teach everything
- Segregating “developmental” students
- Requiring academic remediation
- Telling students what they need to study
- Divorcing skills from the contexts in which people use them

**JUICE is...**

- “Just-in-time and “just enough” review and practice, targeting key competencies, not an entire curriculum; aligned with and integrated into new, required curricula

- Available to all (during and after the course), removes any shame or stigma that comes with needing extra academic help

- Optional, but designed to engage, with a wide range of interactive and relevant review and practice choices, so that students want to do it

- Self-directed exploring, empowering the learner, so students chart their own path, develop their own awareness of what they know, what they need, how they learn best; designed to engage & motivate

- Contextualized problem-solving in real-life scenarios, so students see competencies in action and understand how they’re used and why they’re important
The JUICE EXPERIMENT

Students select a skill (mini-lesson) and choose ways to review: Overview, Try It interactive tutorials, or quick low-stakes Challenge games.

JUICE module library, customized for the academic program.

Course designers embedded links in course curriculum to relevant JUICE competency-based modules for optional skill-building review and practice.
Activity by 502 students in the JUICE RCT study who chose to use the resources. Unless otherwise noted, data from Nov. 1, 2016 to May 4, 2018. Preliminary research data suggests JUICE learning may positively impact student persistence.

- **56% of students reviewed skills using JUICE**
  - Worked in JUICE more than once: 33%
  - Worked in JUICE once: 23%
  - Did not use JUICE: 44%

- **47% chose more than one way to review and practice in JUICE**
  - More than one way to review: 47%
  - One way to review: 53%

- **Student choices for skill-building review and practice**
  - Overviews: 39%
  - Challenge Games: 36%
  - Try It's: 18%
  - Module Challenge Wheels: 7%

Students avg. 10 min. per mini-lesson (Median 6 min.) Total avg. 37 min. (Median 11 min.) Students return to same and different modules in roughly equal numbers.

**Skills Most Frequently Reviewed**

- Grammar: 500
- Basic Math: 400
- Probability: 300
- Problem solving: 200
- Arguments: 100
- Essays: 50
- Critical reading: 20
- Paragraphs: 10

**Using audio in Overviews?**

- Did not use Audio: 55%
- Listened to Narration: 45%
RECAP

Just-in-time, contextualized, and empowering skill-building

- A library of modular, customizable learning resources for courses and assignments across the disciplines to help under-prepared college students develop and strengthen critical academic skills while doing coursework in any LMS

- A learning platform with a competency-based framework, real-time authoring and publishing, interactive and game-based learning that presents skills in real world contexts, and deep learning analytics
OPPORTUNITIES TO SHARE?

JUICE technology is scalable:
- Standards-based LMS (LTI) integration
- CAMPER authoring/publishing tools for rapid low cost publishing
- Instrumented for data and research

- Create custom programs
- Share new competency-based modules
- Support customization for student communities and degree interests
- Analyze/improve learning content
- Support research
What do you think?
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APPENDIX
I think using JUICE was a great resource! Very easy to learn that way, and fun!

What was most helpful?

Everything, I loved that I could practice after I learned the lesson. I just wished I had more time.

- It was clear, step by step and fun.
- It was easy to understand.
- It was fun and interactive!

Was the Challenge Wheel helpful?

Yes, it was fun! Great way to learn!

Suggestions?

No improvements, just provide access to the program for ongoing students and student discounted access after graduation.

Unsolicited message from a student.

I had the opportunity to utilize your program during my English writing course, I would like to learn more by using your program. Is there another way to sign up for use of your program, or pay for access?
During design testing students said...

I would go here first before opening up a browser and hitting Google.

This is more visual than just reading.

Clean, clear, and understandable.

Gets the job done.

This is an awesome resource.

I wish we had this when I first started.

Liked “Marvelous!” in the feedback -- made students cheer for themselves!

I think it gives you the tools you need to learn the concepts.

You can get the voice at each step which kind of is nice.

If you have visual and also audio it makes it easier for you to learn.

You like if you’re getting it wrong it would highlight it to show you in the problem where to look.

I like that it was a real exercise.

I would use it, and I think there are many other things this could be helpful for.

I liked how clear and specific the feedback was... there was no guessing or assuming.

Everybody's a different learner, so it's good you have different choices...