

Retention and Relevance for CTE-Focused Students through Problem-Based Learning

Susan Waldman & Michelle Igarashi
Leeward Community College



In fall 2013, Career and Technical Education (CTE)-focused composition classes were piloted to accommodate Leeward Community College's requirement for college-level composition for students in the CTE majors. The first CTE-focused class was an accelerated developmental education reading and writing course for students placing two steps below college-level. In the subsequent semester, an accelerated co-requisite composition course was piloted. To further ground instruction in application, a second instructor came to the CTE composition classes, portraying the CEO of a local business. The CTE students developed either PowerPoint presentations or Weebly websites to promote their services. CTE student retention in these collaborative courses has been nearly 100%. Having an "outside expert" address the class makes the composition work concrete.

The Problem

For many career and technical education (CTE) studentsⁱ, English seems irrelevant. Their focus is on their career fields, and it is challenging to engage them in seemingly esoteric subjects such as composition. Thus an effective instructor must tie course student learning outcomes to student schema and interest. This will lead to student recognition that an effective writing and research process will lead to a quality product and composition skills are transferable to work life.

The issue is exacerbated at Leeward Community College (LCC) because 25.1% of entering CTE students place into two-steps below college-level English, ENG 24C; and 30.6% into one-step below (Igarashi, 2015)ⁱⁱ. Thus students may have to enroll in up to six credits of developmental English courses before taking ENG 100, the foundational requirement for all associate degrees at LCC.

While a major mission of an open-door institution is to provide students with higher educational opportunities no matter what their academic background or professional goals, often times, colleges adopt a one-course-fits-all attitude towards requirements, especially at the develop-

mental level, resulting in a high dropout rateⁱⁱⁱ. Typically, according to the U.S. Department of Education, only 52% of all career and technological students persist to earn a certificate or to graduation (2013). As the U.S. Department of Labor reported that 645,000 jobs opened in the trade, transportation, and utility sector and 253,000 jobs in manufacturing, clearly LCC needed to change in order to help meet national workplace needs (2013).

Indeed, the U.S. Department of Education's 2012 *A Blueprint for Transforming Career and Technical Education* reported:

CTE must lead students to develop the knowledge and skills required for success in college, career, and civic life....It...includes learning and practicing a set of employability skills, such as the ability to work collaboratively in diverse teams, communicate effectively, think critically, solve problems, find and analyze information, ask challenging questions, and adapt to change, that make individuals more employable across specialty areas. These employability skills, or 21st-century skills, are the transferable skills that empower a person to seamlessly transition from one job or field to another for a lifetime of career success. These skills are also important in civic life because they empower individuals to understand and tackle pressing public problems in their communities. (p.7)

The language arts provide practice and development in all of these areas. In fact, these skills are the foundation of LCC's Career and Technical Education English program.

In summer 2013, Michelle Igarashi from LCC's Language Arts Division began work on a new curriculum designed to make CTE students locally, nationally, and globally competitive. The first step was to discuss the issue with Leeward's CTE faculty to ascertain the language arts demands of students and professionals engaged in their respective fields. Igarashi compiled the following list, which included both cognitive and non-cognitive skills,

i For Leeward Community College, CTE includes Business, Automotive, Culinary Arts, Health Programs, Television Production, Information and Computer Science, Substance Abuse Counseling, and Digital Media.

ii Using Compass Writing and Reading exam with cut-off scores at ENG 24: 0-39, ALP: 40-73, ENG 100: 74 and higher.

iii Goal 1.3 in the Leeward CC Strategic Plan Update, Strategic Outcomes & Performance Measures 2008-2015 is to "[i]ncrease the number and percent (to 80%) of students, who, if assigned to a developmental intervention, successfully complete that sequence and move on to degree applicable instruction by 2015."

and aligned them with Hawaii's 2013 Department of Education mandates. Therefore, at course end, students should have the ability to

- produce clear, coherent writing in full sentences as well as bullets,
- demonstrate critical thinking in artifacts,
- analyze beyond the parameters of a text,
- focus on tasks at hand,
- proofread for accuracy, clarity, as well as grammar and mechanics,
- build ethics, business etiquette, and a sense of social responsibility,
- deliver assignments on time, and
- produce quality products.

In addition, Igarashi sought to achieve

- improved retention of CTE students in English courses and within majors,
- higher pass rates in English courses,
- increased matriculation of CTE students into majors,
- skill readiness should students change majors and enter non-CTE academic programs,
- better degree/certification rates, and
- job readiness.

The Solution

CTE-focused composition classes were designed to engage students more fully in the research and writing processes based on feedback from CTE content faculty as well as Igarashi's experience with students in such majors in her general education English courses.

The inaugural CTE- focused composition class was offered in spring 2014 as a combined reading-writing course for students two-steps or more below college level in the same vein as Chabot College (Edgecombe, Jaggars, Xu & Barragan, 2014). For the two years prior to this, LCC had been offering a similarly structured course for general developmental writers and readers (ENG 24). During that same period, 2011-2013, the college was also offering several sections of concurrent co-requisite composition classes, using the Accelerated Learning Program (ALP) model pioneered by Community College of Baltimore County (Cho, Kopko, Jenkins & Jaggars, 2012). Teaching strategies used in these new CTE classes included

- grounding learning in application,
- using active learning and accommodating various learner styles,

- working with hands-on and visual learners,
- encompassing general English course SLOs/CLOs,
- engaging students to help establish learning ownership, and
- working with peers on projects and assignments to increase student involvement, responsibility, and cooperation.

Collaboration is a key component not only in CTE professions, but in CTE teaching as well^{iv}. At Leeward Community College, partnering on projects is actively encouraged through cross-campus professional development opportunities, English course meetings, and hallway conversations. In years preceding the CTE initiative, the Accelerated Learning Program and ENG 24 faculty had regular course-related meetings to share, encourage, and solve problems as they arose with acceleration expansion. During ALP meetings, Susan Waldman shared her problem-based learning (PBL) model so that when the CTE pilots were being developed, Igarashi knew that there was already a colleague who was using techniques appropriate for CTE students.

According to Jolly and Jacob, a PBL project is meaningful if it fulfills two criteria: students must perceive it as personally meaningful, as a task that matters and that they want to do well, and the project or problem must serve an educational purpose (2012). This grounding of composition to application was a requirement of the CTE pilots as was the development of a problem-solving mindset, as encouraged in the PBL models (Jolly & Jacob, 2012).

When Igarashi was creating the first developmental CTE course, ENG 24C, which combined reading and writing, she was trying to find a way to give students a "real life" target audience that would still allow them to experiment and make mistakes. Waldman's "local business" was a perfect fit. At a point in the semester when Igarashi's students were ready for larger projects and had begun to develop business ideas, Waldman addressed Igarashi's class in order to introduce Waldman's "business." The CTE students were then faced with the problem of how to sell their product or services to an "actual" customer using their writing and presentation skills.

Artifacts

In this PBL assignment, student work was presented to the "CEO." ENG 24C students delivered a business marketing presentation, an act of persuasion, backed by well-chosen data and articulately structured language. They integrated technology to create and publish writing

^{iv} Cornell University research demonstrates that collaboration increases "higher-level thinking, oral communication, self-management, and leadership skills (2016).

products for a specific purpose, task, and audience. In subsequent semesters, co-requisite students created websites. For each of these products, Waldman and Igarashi cooperated on grading. This collaboration provided outside verification of content and writing skill mastery^v.

ENG 24C. The CTE reading and writing course, ENG 24C, was created for students who were two or more steps below college-level writing. These students needed to gain the reading and composition skills necessary for college success. In this class, they learned public speaking with visual aids, peer evaluating, time management, the development of focus, the development of a public image, adherence to professional ethics, how to think on one's feet and increase self-confidence, and to manage clarity of thought.

One student sample from ENG 24C was "Johnson's Automotive." The student, who had placed two-steps below college writing and reading, had failed a non-CTE course section previously. As a non-traditional student, he had already been in the automotive workforce, but had returned to college as he wanted to build his own business. With a well-considered professional goal in mind, he was impatient to earn a degree and had little interest in abstract exercises. In this new CTE reality-based curriculum, the student flourished. He became motivated and rose as a class leader.

For this task, the student created a business analysis. He then created a five-page MLA-formatted script with a works cited. This was a research essay in disguise. Then he summarized the content down to bullet points for the "local business" project, which he orally presented with his slides first to classmates to garner feedback, then officially to Waldman. For his efforts, he was "chosen" for partnership. This student not only received an "A" for the class, he graduated in spring 2016 after three years in the community college system^{vi}.

ENG 100/ALP. The next semester, Igarashi developed the higher-level acceleration course, one-level below college composition with concurrent enrollment in the college-level section, ENG 100/ALP. This course encompassed goals and learning objectives for both levels of composition including using a recursive writing process, writing for a specific audience and

^v Collaboration included instructor-instructor, student-instructor, and student-student.

^{vi} This time frame is well below the national average of six years as reported by Paul Fain in *Inside Higher Education* (March 2015).

purpose, developing persuasive writing skills, and finding and incorporating source material.

In this assignment, students designed business proposals using Weebly websites. This project was aided by Waldman's class presentation of her business, which included an extended opportunity for questions and answers. As with the ENG 24C assignment, here students began by organizing sources and writing peer-reviewed research essays. The information was then categorized into coherent sales pages including a homepage with content abstract, an "about" page consisting of a 500-word biography written with a public consumer audience in mind, as well as a product page utilizing labeled visuals, sales charts, and graphics. Unlike ENG 24C, this project did not include a performance component. This made the task more challenging for the student was relegated to the written page to make his/her argument. This simulated a real-world online sales scenario while challenging the students' composition acumen. As with the ENG 24C project, Waldman had a voice in the grades for these projects, as she decided which businesses or services to pursue further.

Conclusion

As a result of this collaborative reality-based assignment designed specifically to meet the interests of CTE students, nearly 100% persevered in these composition class sections. Moreover, the course passing rate was 91% in the two-steps below college-level, ENG 24C, and 73% in the co-requisite, ALP/ENG 100. Indeed a CTE-designed English course is by nature a project-based learning experience, as assignments are based on occupational tasks with language arts content and skills spiraled in. Ergo this union has created a success-driven assignment that not only helps students pass their English course, but improves their growth mindset as well.

References

- Cho, S., Kopko, E., Jenkins, D. & Jaggars, S. (2012). *New evidence of success for community college remedial English students: Tracking the outcomes of students in the accelerated learning program*, (Working Paper No. 53). Retrieved from Community College Research Center website: <http://hdl.handle.net/10022/AC:P:19259>
- Cornell University Center for Teaching Excellence. (2016). *CTE collaborative learning*. Retrieved on July 26, 2016, from: <https://www.cte.cornell.edu/teaching-ideas/engaging-students/collaborative-learning.html>

Edgecombe, N., Jaggars, S., Xu, D., & Barragan, M. (2014). *Accelerating the integrated instruction of developmental reading and writing at Chabot College* (Working Paper No. 71). Retrieved from Community College Research Center website: <http://dx.doi/10.7916/D8CZ359B>

Fain, Paul. (2015). Community college enrollment and completion data. *Inside Higher Education*. Retrieved on March 20, 2015, from <https://www.insidehighered.com/quicktakes/2015/03/09/community-college-enrollment-and-completion-data>

Hawaii State Department of Education. (2013). *Career and technical education*. Retrieved August 21, 2013, from <http://www.hawaiipublicschools.org/TeachingAndLearning/StudentLearning/CareerAndTechnicalEducation/Pages/home.aspx>

Igarashi, Michelle. (2015). [Study of Leeward Community College's CTE student achievement rates compiled by Leeward Community College's Office of Planning, Policy and Assessment]. Unpublished raw data.

Jolly, J. & Jacob, C. (2012). A study of problem based learning approach for undergraduate students. *Asian Social Science* 8(14), 157-164.

Leeward Community College. (2011). Mission statement. University of Hawai'i Community College System. Retrieved May 5, 2014, from <http://www.leeward.hawaii.edu/mission>

University of Hawaii System. (2008-2015). Strategic plan. Retrieved June 3, 2013, from http://www.uhcc.hawaii.edu/OVPCC/strategic_planning/uh_strategic_plan.php

U.S. Department of Education, Office of Career, Technical, and Adult Education. (2012). *Consolidated annual report (CAR)*. Retrieved October 4, 2012, from <https://perkins.ed.gov/pims/DataExplorer/Performance>

U.S. Department of Education, Office of Career, Technical, and Adult Education (2015). *Consolidated annual report (CAR)*. Retrieved July 12, 2016, from <https://perkins.ed.gov/pims/DataExplorer/Performance>

U.S. Department of Labor, *Employment projections* (2013). Retrieved October 4, 2012, from <http://data.bls.gov/projections/occupationProj>

Susan Waldman is an assistant professor of English in the Language Arts Division at Leeward Community College in Pearl City, Hawaii, and is also the college-level English discipline coordinator.

Dr. Michelle Igarashi is an instructor of English in the Language Arts Division at Leeward Community College and is also the developmental education and CTE English coordinator.