

Final Report Cohort II, Inter/National Coalition for Electronic Portfolio Research  
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*A Values-Driven ePortfolio Journey: Nā Wa 'a  
Kapi`olani Community College, University of Hawai`i*

### **The Model and the Research Question**

Kapi`olani Community College's faculty from the Mālama Hawai`i Center, where Native Hawaiian programs, projects, and student services take place, developed an ePortfolio model that uses a voyaging metaphor where students connect their academic, career, and personal work with a stage of growth in understanding Hawaiian values. This act gives the student ownership of her artifact, experience, and learning, while validating her cultural intelligence. The result is a digital archive that provides evidence of what the student knows and a record of growth, both academic and personal. Students write a reflective analysis of each artifact as it is placed in the ePortfolio that asks students to assess their strengths and weaknesses. The reflections display evidence of an emotional connection to academic assignments, demonstrating that cultural and emotional factors influence thinking and information processing. Feedback to students impacts learner-centered behaviors such as motivation, orientation toward learning, and a deeper understanding of the relationship of the subject matter to Hawaiian values and the journey metaphor. The I/NCEPR research team hypothesized that this model would develop students' abilities to pursue learning in college and stimulate a sense of empowerment by assisting students to take responsibility for their own education. The central research question this study explores is whether this approach is, indeed, learning-centered.

The research team designated first-year composition and second-year Hawaiian language courses for the research study, and included a control class for first-year composition. The researchers administered two instruments, the Learning and Study Strategies Inventory (LASSI), and the Nā Wa'a ePortfolio Survey, and analyzed the students' reflective learning analyses to explore whether the approach is truly learning-centered.

#### **1. The Learning and Study Strategies Inventory (LASSI)**

< [http://www.hhpublishing.com/\\_assessments/LASSI/index.html](http://www.hhpublishing.com/_assessments/LASSI/index.html)>, electronically administered at the beginning and end of the semester, was chosen to assess the impact of the ePortfolio as an educational intervention that improves student learning-centered behaviors and attitudes. Learning-centered is defined for this project as promoting the ability to pursue learning in college and throughout life, and

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engendering a sense of empowerment for students by assisting students to take responsibility for their own education.

## **2. The Nā Wa`a ePortfolio Survey**

Electronically administered at the end of the semester, uses 12 questions based on the Community College Survey of Student Engagement (CCSSE)

<[http://www.austincc.edu/oiepub/ext\\_rpts/ccsse.html](http://www.austincc.edu/oiepub/ext_rpts/ccsse.html)>, for which the College has local and national benchmarks, and three instructor-generated questions. The CCSSE questions were chosen as they measure levels of student engagement in their learning.

### ***Findings: Learning and Study Strategies Inventory (LASSI)***

The data were assessed with the *t* test for repeated measures. Before-and-after results in the fall 2006 semester of implementation showed real improvement, after instructors made significant changes to their curriculum, integrated the ePortfolio approach with other assignments, and created new assignments specifically for the ePortfolio.

### **LASSI Conclusions**

The ePortfolio students demonstrate significant improvement on eight of the ten LASSI scales, while control group students demonstrate improvement on five out of ten of the scales; thus, three of the scales show improvement for only the ePortfolio students: anxiety, time management, and test strategies. It is interesting to note that each of these scales represents a different component of the LASSI, which suggests that participation in the ePortfolio may have a unique impact on the three areas of learner-centered engagement that the LASSI measures. However, more interesting to note are the changes in teaching that followed on the efforts to integrate the values-centered ePortfolio were more learner-centered, regardless of the actual use of the ePortfolio. Instructors began the project with the intent to turn students into more independent learners, with a sense of their culture and its relevance in higher education. Follow-up data with future semesters are being collected, however, to sort out these findings before any firm conclusions can be made.

### ***Findings: The Nā Wa`a ePortfolio Survey***

Kapi`olani Community College through its participation in the Community College Survey of Student Engagement (CCSSE) has benchmark data that relate to student success. In six out of the twelve CCSSE survey questions, the findings for

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 the ePortfolio group demonstrate a significant positive result in comparison to  
 College and national benchmarks, while the other six questions showed no significant  
 difference.

**ePortfolio Nā Wa`a Survey Questions Showing Significant Difference**

Scoring Options: 4=Very much 3=Quite a bit 2=Some 1=Very little			
Benchmark Comparison, Nā Wa`a =38 students	National	KapCC	Nā Wā `a
Q4 How much has your experience in Nā Wa`a contributed to your knowledge, skills and personal development in developing a personal code of ethics and values?	2.32	2.41	<b>3.13</b>
Q9 How much has your experience in Nā Wa`a contributed to your knowledge, skills, and personal development in writing clearly and effectively?	2.7	2.86	<b>2.95</b>
Q10 How much has your experience in Nā Wa`a contributed to your knowledge, skills, and personal development in thinking critically and analytically?	2.86	2.83	<b>2.97</b>
Q11 How much work in your experience in Nā Wa`a has emphasized synthesizing and organizing ideas, information, or experiences in new ways?	2.7	2.69	<b>2.99</b>
Q13 How often in your experience in Nā Wa`a have you worked with instructors on activities other than course work?	1.42	1.35	<b>2.22</b>
Q14 How often in your experience in Nā Wa`a have you worked harder than you thought you could to meet an instructor’s standards or expectations?	2.54	2.52	<b>2.82</b>

**Survey Conclusions**

The six questions that were significantly more positive than national and local benchmarks addressed the use of values, critical thinking, writing, teamwork, and a level of engagement. Students’ spontaneous, open-ended comments in the survey support our hypothesis that working on the ePortfolio with the values approach is leading students to engage more deeply in their learning, to mention the values in their reflections, and to relate the values to their understanding of their learning.

**Findings: Students’ Reflective Analyses**

Students were required to write reflective analyses to explain how they chose to place a given artifact in the Nā Wa`a ePortfolio system. Preliminary analysis of these reflective comments yielded four general categories of personal growth: 1. awareness of one’s strengths; 2. recognition of areas where improvement is needed; 3. an increased understanding of the learning process, and 4. recognition of learning beyond course content.

**Findings: Teacher Feedback on Reflective Analyses**

In addition to analysis of the students’ comments, the research team also analyzed the teacher feedback. In her effort to help students see the growth

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demonstrated in their work, she echoed back to them the deeper meaning of their words. While there were many instances of unique growth, there were also three general themes that emerged from her responses: 1. increased motivation (e.g., to do well, to improve, to honor one's family, to use research to support one's ideas); 2. increased understanding of oneself through the writing and reflection processes; and 3. awareness of connections between the current learning and future activities such as taking other courses, engaging in professional writing, and participating in one's culture.

### **Summary of Findings**

The findings from the LASSI and CCSSE surveys, combined with the analysis of students' reflective analyses and teacher feedback, present a picture of students who feel connected to their learning and who feel empowered to extend what they have learned to other venues. This ePortfolio approach, while not conclusively shown to support any specific area of improvement, does generally support learning-centered behaviors and attitudes.

### **Recommendations**

Initially, instructors began the project with the hopes of transforming their students into more independent learners. At about mid-semester, the instructors realized they were transforming the way they teach. The following recommendations are a result of their journey:

1. Integrate ePortfolio into the course content. Initially, the project was perceived as an outside entity, an extracurricular activity of sorts that students would work on at home in addition to the course content. The instructors changed their perception in order to influence student participation. The journey was not about to be left out of the course or classroom. Instructors modified curriculum to provide students with opportunities to create artifacts for their journey.
2. Find interactive ways via a cultural perspective for students to express their knowledge and/or acquire a deeper knowledge of cultural values.
3. Enhance computer multi-media competence to provide students with opportunities to create more artifacts such as video presentations, audio recordings, and digital storytelling.
4. Create a peer mentor network to provide one-on-one support for students. Developing, initiating, and maintaining the momentum required a considerable amount of time in and out of the classroom. Peer mentor support not only aided the

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 instructor but also encouraged peer to peer, mentor to peer, and cross-curricular partnerships.

5. Refrain from prescribing a required number of artifacts that students should present. Instead, students choose how many (or how few) artifacts they choose to upload.
6. Creates a cultural framework that will possess certain metaphors that members of that culture will understand and could adapt to suit their values, practices, and objectives. The framework will support the student to be empowered through knowledge of the self.

The above recommendations have helped the ePortfolio faculty and research team address a very important goal: perpetuate and validate Hawaiian cultural knowledge through Internet technology. Although the project focused on beginning English composition and Hawaiian language courses, the concept is not a course specific ePortfolio. Students are encouraged to upload artifacts from all of their courses, and personal and career work. A framework like this can be used in almost any course or student service program. The values that are basically universal, easy to grasp, and yet are open to interpretation that demands student-instructor interaction and analytical thinking. Because the framework is based on a cultural metaphor, not an imposed model of learning, the students informed their self-assessment and reflections with existing knowledge and cultural intelligence. In addition, students who were not familiar with Hawaiian culture and values were introduced to the culture via a native perspective and gained a more intimate relationship with the place they call home. Metaphorically, the student will reach the stage where the canoe has landed, and the individual is ready to be supportive of others.

### **Next Research Focus**

The next research focus will be on the use of ePortfolios among developmental faculty within developmental English and mathematics courses. A project is in place to help developmental faculty members learn how to use the ePortfolio software as they create a personal ePortfolio for professional development. We hypothesize that this use of the ePortfolio will migrate to the classroom as faculty grow to appreciate the possibilities for their students. Our expectations are that:

- 1) Faculty will change with regard to their attitudes toward teaching, course curriculum, and teaching strategies as they integrate ePortfolios into their course designs.

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- 2) The ePortfolio format with the Hawaiian values will evolve as each faculty member adapts it for specific curricular needs.
- 3) Students will continue to show increased levels of engagement on CCSSE (and perhaps LASSI) scores.

Ideally, College researchers will follow changes in both faculty practices and student performance as the ePortfolios become more popular and more deeply embedded within the developmental courses.