

# Incorporating Elements of Attitude and Purpose for Premedical Indigenous and Disadvantaged Student Success

Kimberly B. Yamauchi, MPA\*, Sharleen Chock, PhD, MEd, MS\*, C. Mālia Purdy, PhD, MPH

John A. Burns School of Medicine, University of Hawai'i at Mānoa, Honolulu, HI

\*These authors contributed equally to this work

## 'Imi Ho'ōla Post-Baccalaureate Program

The 'Imi Ho'ōla Post-Baccalaureate Program ('Imi) is within the Department of Native Hawaiian Health (DNHH) at the University of Hawai'i John A. Burns School of Medicine (JABSOM). Established in 1973, 'Imi is a deep-rooted pathway program that provides educational opportunities for indigenous and underrepresented students from educationally, socially and/or economically disadvantaged backgrounds who have demonstrated a commitment to service and are deemed capable of succeeding in medical school. 'Imi accepts up to 12 students with ties to Hawai'i and the U.S. Affiliated Pacific annually. Upon successful completion of the program, students matriculate to JABSOM as first-year medical students the following year. Successful matriculants enter medical school with a stronger foundation in the basic sciences, are familiar with the Problem-Based Learning (PBL) process, have been exposed to sense of place and humanistic aspects of medicine in Hawai'i, and are able to apply specific learning and test-taking strategies to support their academic success.<sup>1</sup>

## Curriculum Overview

'Imi's curriculum and student-centered teaching philosophy has proven to support student's academic and professional development.<sup>2</sup> The curriculum is divided into three Phases: *Phase 1 Orientation and Assessment*, a month long summer course designed to assist students and provide them with tools that will support their transition into the program, laying the *kahua*, or foundation, to the coursework and learning process that is expected of students in the Program.<sup>3</sup> *Phase 2, Post-Baccalaureate Enrichment*, runs during the fall and spring semesters. Students are exposed to Problem Based Learning (PBL), Medical Biology, Medical Biochemistry, and Humanities in Medicine. *Phase 3, Pre-Matriculation*, assists students as they prepare to transition into medical school with activities such as reflection exercises, community service, basic clinical skills, and patient introductions. The exploration, development, and application of students' academic and personal approach to learning begin in Phase 1 and continue to be refined and enhanced in Phases 2 and 3. In addition, an individualized learning plan is created and discussed with the student and modified throughout the year.

Figure 1. Student demographics from program evaluation.<sup>5</sup>

COMPLETER VS. NON-COMPLETER  
**PROFILE COMPARISON**  
**ATTITUDE**  
was the only significant predictor between those who completed 'Imi Ho'ōla and those who did not complete.  
FOR EVERY 10% INCREASE IN ATTITUDE SCORE ON LASSI, A STUDENT IS 20% MORE LIKELY TO COMPLETE 'IMI HO'ŌLA

<b>Attitude and Interest (ATT)</b>	The <b>Attitude and Interest Scale</b> assesses students' attitudes and interest in college and academic success. It examines how facilitative or debilitating their approach to college and academics is for helping them get their work done and succeeding in college (sample item: I have a positive attitude about attending my classes). Students who score low on this scale may not believe college is relevant or important to them and may need to develop a better understanding of how college and their academic performance relates to their future life goals.
<b>Percentile Score: 50</b>	

## Program Evaluation/ LASSI Overview

### Program Evaluation

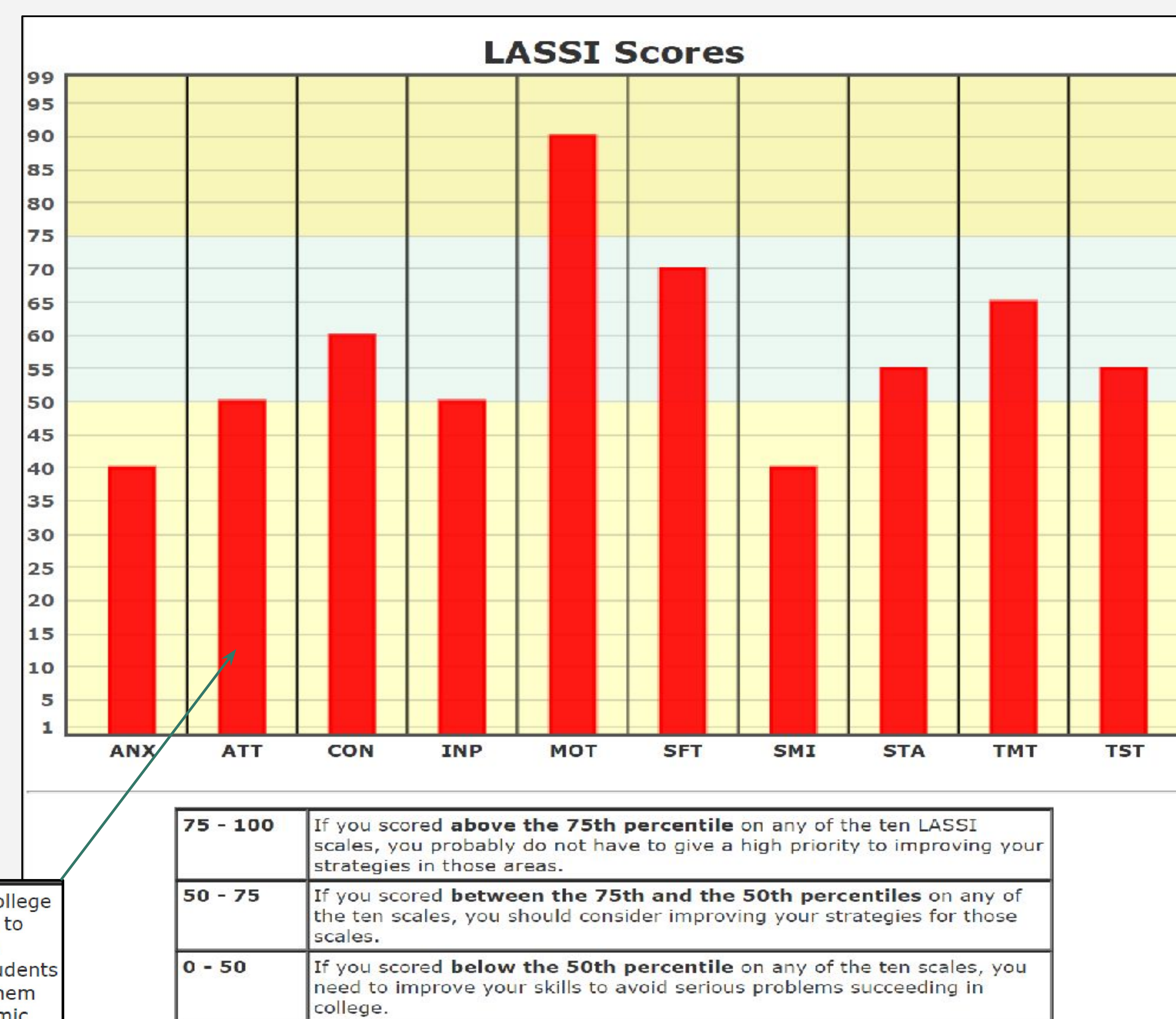
A recent program evaluation identified that a high score on the Attitude scale of the Learning and Study Strategies Inventory (LASSI) was a significant factor in student success (Figure 1).<sup>4</sup> New additions and revisions to the Phase 1 curriculum were then implemented through sessions designed to promote a healthy attitude and sense of purpose. Various projects, assignments, and activities, as well as individualized meetings covering learning preferences and assessment results, strengths, and recommendations for improvement create meaning and purpose throughout all phases of the program. The program data regarding the effectiveness of the curricular changes are analyzed through coursework, surveys, student reflection statements, and student discussions throughout the duration of the program. Program faculty review and track outcomes of students currently enrolled in the program and while they are in medical school.

### LASSI Overview

The Learning and Study Strategies Inventory (LASSI) is a 10 scale, 80-item assessment of students' AWARENESS about and USE OF learning and study strategies related to skill, will and self-regulation components of strategic learning. The intent is that thoughts, behaviors, attitudes, and beliefs that relate to SUCCESSFUL LEARNING can be promoted through educational interventions.<sup>5</sup>

LASSI Attitude Scale assess students' attitudes and interests in college and in achieving academic success (Figure 2). LASSI Attitude Scores suggest students may/may not believe college is relevant or important to them and may need a better understanding of how the purpose of college and their academic performance is relevant to their future life goals (becoming a physician).

Figure 2. Sample LASSI scores and attitude scale.<sup>5</sup>



## Conclusion & Outcomes

'Imi has significantly increased the number of indigenous and disadvantaged students that complete medical school in Hawai'i.<sup>6</sup> The curricular innovations implemented in Phase 1 that address attitude and purpose, are instrumental in promoting the retention of indigenous and underrepresented students enrolled in the program. To date, 297 students successfully completed the program and graduated from JABSOM with a MD degree. Of that, a significant number of completers are indigenous students. Specifically, 51% of the 'Imi graduates are of Native Hawaiian and Pacific Islander descent.

Preliminary observations and student feedback of these curricular innovations indicate that these students developed self-awareness, as well as increased their confidence as learners and leaders within the program and throughout medical school.<sup>3</sup> They also gained critical thinking and test-taking skills, and are active learners. A large number of 'Imi Ho'ōla alumni have taken on leadership roles while in medical school and are active in social justice issues and community engagement activities. Future studies will further examine the effect of these curricular changes throughout the program and its relationship to student retention.



Photo from the JABSOM White Coat Ceremony, July 2021  
'Imi Ho'ōla Class of 2021 is comprised of students from O'ahu, Hawai'i Island, & Guam  
Left to Right Back Row: Baoxin "Hailey" Liang, Benjamin Lee, Eduardo Biala, Jr., & Vanessa Freitas  
Front Row: Katelyn Shirai, Shantel Pascual, & Tiffany Kurozawa

## References

- Judd NLK, Sakamoto KK, Hishinuma ES, DeCampra C, Malate AR. 'Imi Ho'ōla: an educational model for disadvantaged students at the University of Hawai'i School of Medicine. *Pacific Health Dialog*. 2007;14(1):199-204.
- Lee WK, Lee MS, Carpenter DA. Medical school hotline: Celebrating 40 years of 'Imi Ho'ōla. *Hawaii J Med Public Health*. 2014;73(2):66-67.
- Chock, S., Yamauchi, K., & Lee, W. (2022). Laying the Kahua (Foundation): Incorporating Elements of Attitude and Purpose for Underrepresented Student Success at the University of Hawai'i John A. Burns School of Medicine 'Imi Ho'ōla Post-Baccalaureate Program. *Hawaii Journal of Health and Social Welfare*. 2022; 81(4 Suppl 2):11-14.
- Purdy, C.M. Evaluation of a post-baccalaureate medical education program for disadvantaged students to diversify the healthcare workforce in Hawai'i (1996 – 2016). [Doctoral dissertation]. University of Hawai'i at Mānoa; 2019.
- Weinstein CE, Palmer DR, Shulte, AC. *Learning And Study Strategies Inventory*. 2nd ed. H & H Publishing Company, Inc; 2020.
- DeCampra CC, Lee WK. *Imi Ho'ōla program: producing primary care physicians for Hawai'i and the Pacific*. *Hawaii Med J*. 2011;70(11 Suppl 2):25-26.

Mahalo to the Queen's Health Systems Native Hawaiian Health Initiative for their support of the 'Imi Ho'ōla Post-Baccalaureate Program.

