

## ACHF College Well-being Project Report: Creating Well-Being Learning Environments at UCR



University of California, Riverside (UCR) is taking an integrated and comprehensive approach to elevate health and well-being at UCR. UCR Healthy Campus, part of the larger systemwide University of California (UC) Healthy Campus Network supported by President Janet Napolitano, invests in improving the health and quality of life for all of our UCR campus community.

Making the healthy choice the easy choice requires changing the surrounding environment and culture to support and sustain positive behavior change. UCR's Healthy Campus forms partnerships with staff, faculty, students, and the surrounding community to develop, implement, and institutionalize policies and environments essential for sustainable behavior change.

As an educational institution, UCR is committed to providing an environment that both supports and encourages the health and well-being of our campus community. Through collective action and input from the UCR community, UCR Healthy Campus identifies health priorities and advocates for policies, services, and environments that systematically support and cultivate an environment of well-being where positive health choices are a part of everyday life.

With approximately 25,000 students, promoting student well-being is a key priority of our work. Working with campus leadership and partners including student affairs, faculty, undergraduate education, academic senate, etc. Healthy Campus seeks to offer innovative ways to promote and sustain student well-being, ultimately resulting in student and academic success.

**UCR received the American College Health Foundation (ACHF) College Well-Being award in the amount of \$3,500.** Project goals for creating wellbeing learning environments included:

1. Showcasing the importance of embedding health into pedagogy and creating culture change in higher education.
2. Recruiting faculty to participate and collaborate by providing them with tools, resources, and incentive to pilot healthy pedagogy strategies into their classroom/learning environments for at least one quarter.
3. Sharing best practices, lessons learned, and recommendations on getting faculty, staff, and students to adopt strategies to promote well-being in learning environments.

### **METHODS**

The university provost emailed all faculty to invite their participation in the project. Fifty-seven faculty expressed interest in participating. We selected nine faculty members, giving priority to those who responded first and were teaching an undergraduate course in Fall 2020, and ensuring that there was disciplinary diversity. They participated in a two-hour training on healthy pedagogy prior to the start of the Fall 2020 quarter. The training reviewed the contents of the Integrating Well-being Concepts into Learning Environments Guide:

[https://healthycampus.ucr.edu/sites/g/files/rcwecm2766/files/2020-02/hc-culture-of-health\\_integrating-well-being-concepts-into-learning-environments.pdf](https://healthycampus.ucr.edu/sites/g/files/rcwecm2766/files/2020-02/hc-culture-of-health_integrating-well-being-concepts-into-learning-environments.pdf)

The training also provided an opportunity for questions and answers and discussion. The faculty completed an online pre-test prior to the training and an online post-test within one week of completing the training. Then, in Fall quarter, the trained faculty ran their undergraduate classes, implementing strategies from the training. Faculty who participated received \$250. Students in those classes, who had been enrolled in UCR in the last academic year and were aged 18 years or older, were invited to participate in the project. Those who volunteered completed an online pre-test in the first week of classes and an online post-test the last week of classes. A control group of students in classes with faculty who were not trained were also invited to complete pre-test and post-test surveys. A total of 52 students participated. Participating students received a \$5 giftcard to dining services.

### *Faculty measures*

We measured six faculty outcomes; all were measured at both pre-test and post-test. Two outcomes captured faculty behaviors: the number of teaching strategies used and the number of syllabus strategies used. Two outcomes captured faculty attitudes: endorsement of the value of healthy pedagogy strategies and self-efficacy in the use of healthy pedagogy. Two outcomes captured faculty knowledge: recognition of the value of student health and recognition of the relation of student health and well-being to institutional outcomes, student academic outcomes, and faculty health. We expected that after the healthy pedagogy training, the average post-test scores would be higher than the average pre-test scores on each outcome.

At the pre-test, we asked faculty about the 53 teaching strategies identified in the guide described above – that is, strategies that are considered to promote student well-being. For each strategy, the faculty indicated whether or not they used it in their undergraduate course(s) in the last academic year. We then totaled the number of strategies used. The following are example strategies about which we asked:

- Set assignment deadlines that discourage all-nighters
- Avoid scheduling exams and assignments around major religious holidays
- Share your course syllabus on or before the first day of class
- Give students options for their grade. (e.g., count two out of three assignments towards their grade, drop the lowest score)

The same list was provided to faculty at the post-test. However, this time, we asked faculty to indicate the strategies they planned to use in their Fall 2020 undergraduate course(s). Again, we totaled the number of strategies used.

We also asked faculty about their course syllabi to determine the extent to which they include certain information, the inclusion of which is considered to promote student well-being. Specifically, we asked whether they included the following items:

- Test dates
- Assignment deadlines
- Grading structure
- Instructor's preferred gender pronouns
- Resources for student professional development
- Resources for academic development

- Health and well-being messages and resources

We totaled the number of items faculty reported including in their syllabi. We did this for pre-test and for post-test.

To assess faculty attitudes, we asked the extent to which they endorse the value of healthy pedagogy strategies. Specifically, we asked faculty their opinion of the relation of 20 actions that faculty can take in their undergraduate courses to student health and well-being. For example, we asked them how valuable is it for students, on a scale of 1 (Not at all important) to 4 (Very important), that a professor:

- Be mindful about deadlines
- Be mindful about workload
- Be flexible
- Offer a variety of options (e.g., with assignments, grading)

We averaged the responses to the items, such that higher values indicated higher endorsement of the value of these strategies for student health and well-being.

To assess faculty knowledge, we asked faculty about the extent to which they agree or disagree that teaching strategies affect student health and well-being. The response options to this single item ranged from 1 (Strongly disagree) to 4 (Strongly agree). We also asked the extent to which they knew the relation of undergraduate student health and well-being to other outcomes, including institutional rankings, institutional liability, an institution's return on investment, student academic outcomes, and faculty health and well-being. One example of the five items is, "To what extent do you agree or disagree with the following statement: Student health and well-being affect an institution's ability to recruit students." Response options ranged from 1 (Strongly disagree) to 4 (Strongly agree). Responses to the five individual items were averaged, and higher values on the composite variable indicated a greater knowledge of the relation of student health and well-being to other outcomes.

We conducted descriptive analyses (e.g., means and standard deviations) and bivariate analyses (i.e., dependent samples t-tests).

### *Student measures*

We measured nine student outcomes; all were measured at both pre-test and post-test. One measure was a composite of three items that captured students' perceptions about the extent to which professors show concern for students' physical health, mental health, and well-being. The responses to the component items ranged from 1 (No extent) to 4 (A great extent) and were averaged. Higher values on the composite measure indicated a perception that professors show greater concern. At pre-test, we asked about professors that the student had in the last academic year. At post-test, we asked about their Fall 2020 professor who had completed the healthy pedagogy training.

Students' self-rated health was measured using modified versions of World Health Organization measures (Subramanian, Huijts, & Avendano, 2010). We took an average of the responses to two questions: "In general, how would you rate your overall health today?" and "In general, how would you rate your mental health today?" Responses ranged from 1 (Very bad) to 5 (Very good), such that higher values indicated better health.

We captured six measures of student well-being. Flourishing was an eight-item measure, including statements such as “I lead a purposeful and meaningful life” (Diener et al., 2009). Responses ranged from 1 (Strongly disagree) to 5 (Strongly agree), with higher values indicating a greater flourishing. Happiness was a single-item capturing the extent to which the student felt that their time at UCR contributed to their happiness. Responses ranged from 1 (No extent) to 4 (A large extent), with higher values indicating a greater contribution to happiness. Needs accommodated was a single item capturing the extent to which the student felt that the UCR accommodates their needs (physical, emotional, cultural, etc.). Responses ranged from 1 (Strongly disagree) to 5 (Strongly agree), with higher values indicating a greater perceived accommodation of needs. Sense of purpose was a single item that captured the extent to which the student felt a sense of purpose at UCR. Responses ranged from 1 to 5, with higher values indicating stronger agreement that they felt a sense of purpose at UCR. Sense of belonging was a three-item measure (Bollen & Hoyle, 1990). A sample item is “I see myself as a part of the campus community.” Responses ranged from 1 (Strongly disagree) to 5 (Strongly agree), with higher values indicating a greater sense of belonging. Feelings of success were captured by a single item measuring the extent to which the student agreed or disagreed that they were succeeding at UCR. Responses ranged from 1 (Strongly disagree) to 5 (Strongly agree), with higher values indicating a greater feelings of success.

Academic performance at pre-test was measured as the student’s cumulative grade point average, ranging from 0 to 4. Performance at post-test was measured as the grade that the student expected to receive in the course taught by the trained faculty member in Fall 2020. Again, the scores ranged from 0 to 4, with higher values indicating better academic performance.

We conducted descriptive analyses (e.g., means and standard deviations) with the full sample. We conducted independent samples t-tests to compare the treatment and control groups at pre-test and post-test.

#### RESULTS FROM THE FACULTY PRE-TEST AND POST-TEST

Eight of the nine participating faculty provided complete data at pre- and post-tests. The following results are for that group. The faculty came from these departments: Art History, Business, Chemistry, Ethnic Studies, Media and Culture Studies, Philosophy, Psychology, and Statistics. Six were assistant professors and two were Associate Professors. Four faculty self-identified as non-Latinx Asian, Pacific Islander, or Native Hawaiian. Two identified as Latinx. Two identified as non-Latinx White or European American. Five identified as women, three identified as men. None identified as another gender. Table 1 shows the pre-test and post-test means and standard deviations for faculty outcomes.

**Table 1. Pre-test and post-test means and standard deviations for faculty outcomes.**

	Pre-test Mean (Standard Deviation)	Post-test Mean (Standard Deviation)
Number of Teaching Strategies Used	25.00 (7.60)	27.88 (8.04)
Number of Syllabus Strategies Used	4.13 (1.13)	4.50 (1.07)
Endorsement of the Value of Strategies for Student Health and Well-being	2.97 (0.25)	3.29 (0.35)
Self-Efficacy regarding Own Teaching Strategies	2.62 (.74)	2.75 (0.89)

Recognition of the Value of Student Health	3.33 (0.41)	3.50 (0.33)
Recognition of Relation of Student Health and Well-being to Other Outcomes	3.50 (.54)	3.13 (1.13)

All of the outcomes, except one, trended in the desired direction. The mean number of teaching strategies used increased by three from pre-test to post-test. However, the difference was not statistically significant ( $t = -0.97$ ,  $df = 7$ ,  $p = 0.37$ ). The mean number of syllabus strategies used increased by one from pre-test to post-test, and this difference was statistically significant at the  $p < 0.10$  level:  $t = -2.049$ ,  $df = 7$ ,  $p = 0.080$ . The average endorsement of the value of the strategies increased marginally, and this difference approached but did not reach statistical significance ( $t = -2.26$ ,  $df = 7$ ,  $p = 0.06$ ). Mean self-efficacy increased from pre-test to post-test, but the difference was not statistically significant ( $t = -.42$ ,  $df = 7$ ,  $p = 0.69$ ). The average recognition of the value of student health increased, but this difference was not statistically significant ( $t = -0.80$ ,  $df = 7$ ,  $p = 0.45$ ). Finally, the average level of recognition that student health and well-being are related to student academic outcomes, faculty health and well-being, and the institutional return on investment declined from pre-test to post-test, but this difference was not statistically significant ( $t = 1.426$ ,  $d = 7$ ,  $p = .197$ ).

The teaching strategies reported at pre-test as used most often by all participants ( $n = 8$ ) were:

- Share your course syllabus on or before the first day of class
- Explicitly and verbally let students know you care about their academic success
- Explicitly and verbally let students know you care about their general success
- Put your course materials on reserve at the library
- Identify the larger course objectives and how assignments fit into them
- Allow students to discuss their grade with you

The teaching strategies reported at post-test as used most often by all participants ( $n = 8$ ) were:

- Share your course syllabus on or before the first day of class
- Explicitly and verbally let students know you care about their academic success
- Encourage students to attend office hours
- Forward professional and academic opportunities to students throughout the quarter

One teaching strategy was reported as not used at pre-test but used at post-test, indicating uptake of the strategy after the training:

- Indicate which gender pronouns you prefer for yourself in your email signature or web profile.

With regard to syllabus strategies, faculty reported at pre-test and post-test that they most commonly included the following information in their syllabi:

- Assignment deadlines
- Grading structure
- Test dates

At pre-test, no one reported including in their syllabi resources for student professional development. However, three people reported including it at post-test, indicating uptake of the strategy after the training.

## RESULTS FROM THE STUDENT PRE-TEST AND POST-TEST

Of the 52 students who provided complete data, 44 (85%) were in the treatment group and 8 (15%) were in the control group. Sixty-three percent were male, 37% were female, and 0% were non-binary gender. With regard

to race/ethnicity, the sample breakdown was: 46% non-Latinx Asian, Pacific Islander, or Native Hawaiian only, 25% Latinx only, 10% More than one race/ethnicity, 10% Other race/ethnicity, 7% non-Latinx White or European only, 2% non-Latinx Native American or Alaskan Native only, and 0% non-Latinx Black or African American only. With regard to student standing, the sample was 8% second year, 52% third year, 36% fourth year, and 4% fifth year or higher. We found no meaningful demographic differences between the treatment and control groups.

Table 2 (see page 8) shows the pre-test and post-test means and standard deviations for the student outcomes for the full sample and treatment and control sub-samples. Comparing the treatment group to the control group at pre-test, we identified only one statistically significant difference. The control group reported a statistically significantly higher mean level of happiness than the treatment group at pre-test ( $t = 2.61$ ,  $df = 10.74$ ,  $p = 0.03$ ). Comparing the treatment group to the control group at post-test, we identified only one statistically significant difference. The control group reported a higher mean feelings of success than the treatment group at post-test; however, this difference approached but did not reach statistical significance ( $t = 2.17$ ,  $df = 9.78$ ,  $p = 0.06$ ). We did not find other statistically significant differences, and the pattern of results, with two exceptions (Professor shows concern for well-being, Academic performance), was not consistent with our hypotheses -- that is, the means were not generally higher for the treatment group than for the control group.

## DISCUSSION

This exploratory study examined the impact of a healthy pedagogy training on faculty and the students they teach.

### *Faculty outcomes*

The level of interest in the training was high among faculty. We had more volunteers than we could accommodate. The high level of interest was likely facilitated by heightened interest in student health due to the COVID-19 pandemic and the \$200 stipend for participation. This study provides preliminary evidence that we should continue with the faculty training both because people appear to be willing to take it and it may be effective in increasing the uptake of healthy pedagogical strategies. That said, effective training would ideally be supplemented by ongoing support and resources to ensure continued practice and sustained impact.

Faculty anecdotally reported that not all pedagogy strategies were possible in the context of COVID-19; in other words, they would have employed more strategies after the training if teaching had occurred under normal circumstances. We cannot conclude causality due to the absence of random assignment and a control group of faculty. Another limitation is the small sample size. However, these preliminary results are promising.

### *Student outcomes*

The COVID-19 pandemic clearly interfered with the intervention. For all students, the mean levels of well-being declined from pre-test to post-test. Therefore, we should replicate the student outcome study in post-pandemic times. The student analysis faced several methodological challenges. The number of students providing data was low, and the number of students in the control group was especially small. The participation incentive amount may not have been sufficient to motivate participation. Or, given that the incentive was credit for the university dining services which were unavailable due to the pandemic, it may be that the incentive was not attractive enough to motivate participation. Going forward, we need a better, greater, or otherwise different incentive for students to participate and complete the pre-test and post-test. Faculty working with control group students perhaps need greater engagement in order to motivate student participation.

*Next steps*

We have three immediate next steps. First, we will evaluate qualitative faculty interview data that we collected. Second, we will circulate the recording of the training to other faculty on campus. Third, in April 2021, we are scheduled to have a faculty panel, featuring four of the participating faculty. They will share their experiences with the healthy pedagogy strategies and field inquiries from other faculty about how to incorporate well-being into the learning environment. Our goal is to create a learning community among faculty on this topic to support ongoing professional development and uptake of the strategies.

**Table 2. Pre-test and Post-test means and standard deviations for student outcomes**

	Treatment sub-sample Pre-test Mean (Standard Deviation)	Control sub-sample Pre-test Mean (Standard Deviation)	Full Sample Pre-test Mean (Standard Deviation)	Treatment sub-sample Post-test Mean (Standard Deviation)	Control sub-sample Post-test Mean (Standard Deviation)	Full Sample Post-test Mean (Standard Deviation)
Perception that professors show concern about student health and well-being	2.42 (.85)	2.58 (0.92)	2.45 (0.84)	2.86 (.79)	2.71 (0.88)	2.81 (.80)
Self-rated Health	3.49 (.70)	3.69 (0.92)	2.50 (0.72)	3.20 (.80)	3.56 (1.29)	2.74 (0.89)
Well-being: Needs Accommodated	3.64 (.75)	4 (0.53)	3.65 (0.75)	3.25 (.75)	3.5 (0.76)	3.29 (0.75)
Well-being: Happiness	2.52 (.82)	3.25 (0.71)	2.64 (0.82)	2.10 (.94)	2.38 (0.92)	2.11 (0.93)
Well-being: Sense of Belonging	3.46 (.74)	3.71 (1.19)	3.47 (0.83)	3.16 (.90)	3.63 (0.98)	3.23 (0.92)
Well-being: Feelings of Success	3.93 (.62)	3.75 (1.28)	3.91 (0.73)	3.66 (.71)	4.25 (0.71)	3.75 (0.74)
Well-being: Flourishing	3.80 (.58)	3.94 (0.73)	3.82 (0.59)	3.76 (.55)	3.88 (0.69)	3.78 (0.57)
Well-being: Sense of Purpose	3.61 (.89)	3.75 (0.71)	3.64 (0.85)	3.43 (.90)	3.63 (0.92)	3.46 (0.90)
Academic Performance	3.27 (.65)	3.37 (0.27)	3.28 (0.58)	3.65 (.520)	3.50 (0.84)	3.63(0.564)

## **Acknowledgements**

This report was produced by Nataly Morales Sandoval, Tanya Nieri, and [Brianna Phamtuong](#) (contributors listed in alphabetical order). The project was completed by the UCR Healthy Campus Well-being in Learning Environments Sub-committee which included Julie Chobdee, Dani Cook, Samantha Eastman, April Leviton, Nataly Morales Sandoval, Tanya Nieri, Brianna Phamtuong, Devon Sakamoto, and Marisol Torres. Inquiries should be directed to Tanya Nieri PhD, [tanyan@ucr.edu](mailto:tanyan@ucr.edu). We are grateful to the ACHF for their financial support.

## **Citations**

Bollen, K.A., & Hoyle, R.H. (1990). Perceived cohesion: A conceptual and empirical examination. *Social Forces*, 69(2), 479-504.

Diener, E., Wirtz, D., Tov, W., Kim-Prieto, C., Choi, D., Oishi, S., & Biswas-Diener, R. (2009). New measures of well-being: Flourishing and positive and negative feelings. *Social Indicators Research*, 39, 247-266.

Subramanian, S.V., Huijts, T., & Avendano, M. (2010, February). Self-reported health assessments in the 2002 World Health Survey: How do they correlate with education? *Bulletin of the World Health Organization*, 88(2), 131–138. doi:10.2471/BLT.09.067058