INFUSION NEWS: STEM EDUCATION

A quarterly newsletter to South faculty from AANAPISI's Cultural Specialist

This newsletter is available electronically at the Cultural Specialist homepage, <u>http://www.southseattle.edu/programs/aanapisi/culture-tips.aspx</u> for PDF download.



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For districtwide student services development earlier this year, I heard <u>Dr. James Banks</u> speak about the <u>5 dimensions of</u> <u>multicultural</u> education at the University of Washington. These include content integration, knowledge construction, prejudice reduction, equity pedagogy, and empowering school culture. Can Banks' multicultural education framework help guide us with curriculum and pedagogy in the STEM fields, and if so, what strategies and best practices can and have already worked for our faculty at South Seattle College? In this issue, I will share what I have gathered from working alongside a handful of South's STEM faculty, and triangulate with resources shared from faculty at other institutions. I have also looked to the science and math pedagogy publications for help in exploring what has been researched. Here at South, we have a vibrant and robust Associate of Science degree that is only made possible by the enormous dedication to students shown by our faculty. Here are some curriculum and assignments that can fuse science and cultural knowledge carried out by STEM faculty:

- The social and cultural impact of Ocean Acidification in Chemistry (Jake Ashcraft);
- Vaccination and Anti-vaccination debates from a racial and social class lens in Biology (Algie Au);
- A poster presentation about the ecosystems of a region or country of the student's choosing in Biology (Ruben Murcia)
- A discussion about environmental injustice within a broader segment on healthy neighborhoods in Nutritional Sciences (Janet Kapp).

Additional suggestions about cultural infusion included the incorporation of musical instruments from Asia in a physics assignment; the use of Vietnamese and Somali first names in a math problem set; and the use of world currencies such as the Thai baht in a math assignment. Rochelle Fonoti worked with math instructor **John Toutonghi** on acquiring a large survey dataset that included Asian American respondents. Beyond these modifications and adoptions of global and diverse case studies, there are other best practices we can look to that might involve taking even bigger risks in the classroom which could pay off through greater student engagement and cross-disciplinary learning and collaboration.



Asian American Native American Pacific Islander SERVING INSTITUTION

South Seattle College



CURRICULUM INFUSION AT SOUTH

Some Teaching Resources for STEM Faculty this is just the beginning!

Websites

- Transforming Academic and Cultural Identidad Through Biliteracy (K-12 Math and Science Resources): <u>http://tacib.weebly.com/science--math-resources.html</u>
- Teachers2Teachers International, with Global Math Stories: <u>http://globalmathstories.org/</u>
- Sidney Stephens, "The Handbook for Culturally-Responsive Science Curriculum": <u>http://ankn.uaf.edu/publications/handbook/handbook.pdf.</u>
- Alaskan Native Knowledge Networks, The University of Alaska-Fairbanks: <u>http://ankn.uaf.edu/Curriculum/Units/</u>
- "A case of the world: Cultural diversity within natural science" <u>http://</u> www.southseattle.edu/programs/aanapisi/presentations.aspx
- National Society of Hispanic Physicists, <u>http://www.hispanicphysicists.org</u>
- Anderson, Eugene and Dongbin Kim, "Ensuring the Success of Minority Students in Science and Technology," American Council on Education, available online. March 2006. <u>https://www.acenet.edu/news-room/</u> <u>Documents/Increasing-the-Success-of-Minority-Students-in-Science-and-Technology-2006.pdf</u>

Books and Peer-Reviewed Articles

- Teaching Across Cultural Strengths: A Guide to Balancing Integrated and Individuated Cultural Frameworks in College Teaching (2016) by Alicia Fedelina Chavez and Susan Diana Longerbeam.
- The Immortal Life of Henrietta Lacks (2011) by Rebecca Skloot.
- Pool, Michael, "The feasibility of educating trainee science teachers in issues of science and religion," *Cultural Studies of Science Education*, June 2016, Vol. 11: 2, 273-281.

I want to acknowledge the following Women in Science, nationwide contributors who helped me to build this list:

- Natalie Tran, Cal State University-Fullerton (education school)
- Jennifer D. Adams, Brooklyn College (secondary education)
- Veronica I. Arreola, Women in Science & Engineering, University of Illinois, Chicago
- Miranda Miller, Learning Center Coordinator, SUNY Maritime College
- Ximena C. Cid, California State University-Dominguez Hills (physics dept)



Mytoan Nguyen-Akbar is the editor of this newsletter and Asian American Cultural Specialist.

Cultural Specialist FAQs

The federally funded AANAPISI grant allows all FT and PT academic transfer and professional/ technical faculty to book a consultation with a cultural specialist.

Q: What are the learning outcomes for working with a Cultural Specialist?

A: This newsletter presents ways for faculty to infuse South courses or teaching approaches with cultural content or frameworks to help boost student engagement, retention, and success.

Q: Will there be a web version?

A: Yes, this newsletter and other tips will be archived online at http://www.southseattle.edu/ programs/aanapisi/culture-tips.aspx http://www.southseattle.edu/programs/ aanapisi/culture-tips.aspx

Q: What services are available for faculty, who are already very busy with teaching and service?

A: Increasing student engagement in the classroom is my priority in working with you. I am available for one-on-one meetings, to evaluate your syllabus, phone appointments, and guest lectures to model curriculum. I also learn a lot by working with faculty who already do this type of cultural infusion work.

Q: What is the best way to get in touch?

A: Please call 206-934-6888 or email Mytoan.Nguyen-Akbar@seattlecolleges.edu

STAFF PROFILES



Jena Yang, AANAPISI Program Assistant Jena Yang is a "1.5" generation Korean American and earned her Bachelors and Masters degree in Social Work with a concentration in community-centered integrative practice and prevention at the University of Washington. She received a Certificate in Intergroup Dialogue Facilitation and continues to facilitate dialogues around social and cultural identities, personal understanding of power, privilege and oppression, and alliance building. Seeing the lack of culturally appropriate preventative services for youth of color shaped her goals to then become an advocate for them, and led her to be an Associate Prevention Professional. She was drawn to South Seattle College as the Program Assistant for Asian American Native American Pacific Islander Serving Institution (AANAPISI) to provide a welcoming and culturally inclusive environment dedicated to supporting students' academic success, specifically addressing the needs of Asian American Pacific Islander (AAPI) students. Jena's passion led her to work with multicultural community organizations where she earned a reputation for building collaboration as a workgroup member for National Asian Pacific American Women's Forum-Seattle Chapter. As the E3! Ambassador for the White House Initiative on Asian Americans and Pacific Islanders (WHIAAPI), she supports WHIAAPI Regional Network-Region 10, and works with

South Seattle College and AAPI community organizations to improve the quality of life and opportunities for AAPI students by raising awareness on issues in the AAPI community including education, mental health, pathways to public service, and immigration through organized events and workshops.

Jena's top film picks include: 10 Things I Hate About You; Miss Congeniality; Mulan; Shall We Dance? (the Japanese version); Premonition; Kiki's Delivery Service; Nausicaa of the Valley of the Wind; 200 Pounds Beauty (Korean Movie); King and the Clown (a Korean film); and Ode to the Father (a Korean Movie).

A transplant from Tokyo, Japan, **Yuki Tamura-Vanier** holds a BA in Sociology and MA in International Studies. Her area of expertise includes office administration, fiscal management and project operation. Before coming to the US, she worked at the Canadian Embassy in Tokyo for 10 years and reviewed and processed visa and immigration applications. As a first generation immigrant, non-traditional student and a person with a disability, Yuki would like to share her experiences so our students can succeed despite physical obstacles. She uses the public transportation system and spends her long commute listening to audiobooks by John Grisham, Janet Evanovich, Lee Child and James Grippando.



Yuki's Book Recommendations:

Stephanie Plum Series by Janet Evanovich; *The Help* by Kathryn Stockett; *Now I Can See* you by Nicole C. Kear; *Against Medical Advice*, by James Peterson and Hal Freedman

Yuki Tamura-Vanier is Program Coordinator at the AANAPISI Center.



Yeon-Seu Yim is a Financial Literacy Specialist at South.

Yeon-Sue Yim is the AANAPISI and Completion & Retention Financial Literacy Specialist at South Seattle College. She ethnically identifies as Korean American and racially identifies as Asian American. Born and raised in Kennewick. WA, and most recently living in Tacoma, WA, she initially started as an AANAPISI intern in summer 2015, researching college student retention methods specific to the Center. Additionally, she researched local disaggregated data about API student retention and graduation rates, while observing student services operations, theory to praxis, cultural competency in practice, holistic advising, and student services professionals. In her day-to-day operations, Yeon-Sue works closely with student services departments, including financial aid, scholarship, the Project Finish Line and AANAPISI programs. She develops in person and online resources to disseminate accurate and accessible information about financial aid processes at South, as well as other relevant financial issues, while exploring ways to incorporate culturally competent financial literacy education information to reflect the needs of a multi-cultural and diverse population of students, families, and the community. Yeon-Sue holds a BA in Interdisciplinary Arts and Sciences: Ethnic, Gender and Labor Studies and plans to pursue her M.Ed. in Higher Education in her near future. Her knowledge is informed by her emphasis in ethnic studies using Critical Race Theory and critical analyses of systems of oppression. In terms of financial literacy education, Yeon-Sue's knowledge is informed by her homegrown experience working alongside her family at their local family restaurant in Yakima, WA, New York Teriyaki & Burgers. She had hands-on experience managing her family business while her parents were unable to work. During this time, she was responsible for managing pay periods, accounting, purchasing, managing staff, and maintaining the quality of the business.

Yeon-Sue's top film picks: RACE: The Power of an Illusion (2003), Vincent Who? (2009), The Pianist (2002), Welcome to Dongmakgol (2005), and Slaying the Dragon: Reloaded (2011).

Yeon-Sue is at 934-5220

Celebration of 5 years of the AANAPISI grant at South

May Toy Lukens has been with South since 2008, serving as the project director for our landmark and second AANAPISI grants and forming partnerships with the higher education community to increase the visibility of underserved AAPI's. She serves as a lead on the Department of Education's AANAPISI Community of Practice, on the APIASF AANAPISI Advisory Council, and serves as the external evaluator for other federally funded AANAPISI institutions.

May is the daughter of Chinese immigrants. She is first in her family to graduate from high school and from college. She earned a BA in Political Science at the University of Washington and an MBA at the University of San Diego. May worked in the area of organizational effectiveness in the private sector prior to transitioning to higher education in 2000, to direct the Title III grant at Renton Technical College.

During her downtime, May enjoys cycling, snow skiing, hiking, theater, and sharing a good bottle of wine!

Q&A

What are some of your proudest accomplishments at South under the AANAPISI-F development grant?

There have been so many accomplishments because of the collaboration and support of faculty and staff across the campus and in the community. I think what I am proudest of is bringing visibility to the diversity of our AAPI student population, striving to dispel the Model Minority Myth, the change in the depth of campus engagement and discussions around equity and inclusion, integration pedagogically and in curricular content to better reflect our diversity of students, creation of VOICES learning community, and stronger pathways for ELL to college coursework. The creation of the AANAPISI Center, the stepping up of our students into leadership positions, their identity development, self-efficacy skills, and completion.

What challenges have you faced in carrying out your vision for South?

We are all stretched – faculty, staff, students. It's been a challenge to engage the broader campus. Good intentions does not mean we see or understand the gaps in engagement and success for students when our data is disaggregated by subgroups of race and ethnicity. We may not know what changes to make to our curriculum and pedagogy, or how it applies to our subject matter, or we lack time and energy to make the necessary changes. That's why the AANAPISI grant hired cultural specialists like Mytoan Nguyen-Akbar to work alongside individual faculty and staff to help you make the changes that fit your needs.

What do you think all AANAPISI Centers can learn from your experience at South?

What makes South's AANAPISI Center a draw for students is its holistic practice and guiding core values of inclusion, academic excellence, diversity and respect, and community and collaboration. Staff and tutors are not only culturally sensitive, but serve as mentors and role models who reinforce our inclusive environment.

More about AANAPISI

The AANAPISI Center is a centralized gathering space where Asian American, Pacific Islander, and other underserved students, receive high quality, culturally relevant, programs and services. The AANAPISI Center exists to collaboratively strengthen and sustain an inclusive campus to foster academic success. Our **Core Values** are **inclusion**, **diversity and respect**, **and community and collaboration**. Check out South's AANAPISI Program page for a more complete list of how your federal dollars has made a difference here at South and beyond: <u>http://www.southseattle.edu/programs/aanapisi/grant-program.aspx</u>. You can hear what our students have to say about our AANAPISI Center in video clips at: <u>https://www.facebook.com/SSCCaanapisi</u>



The White House Initiative on Asian Americans and Pacific Islanders, Asian Counseling and Referral Services, and Asian Pacific Islander Coalition provided mentorship and career opportunity for students at the Pathways to Public Service Luncheon on May 18, 2016. The collaboration was spearheaded by E3! Ambassador Jena Yang. Federal, state, county, and city employees came to share their experiences on the job with a gathering of 28 of South's students.

