

# PEER-LED TEAM LEARNING DISSEMINATION

## INTRODUCING THE PLTL MODEL TO SOUTH AFRICAN EDUCATORS AT PRINCE GEORGE'S COMMUNITY COLLEGE

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A beautiful representation of the Rainbow Nation! I was so honored to host a group of 55 Black, Colored, Indian, and White South African Educators (SAE); they were teachers, administrators and Department of Education officials working in harmony to improve public education in South Africa. They even brought the sunshine with them that lovely Monday afternoon.

The SAE are participants in the U.S. Leadership Training Activity for South African Further Education and Training (FET), a “three-year project aimed at addressing problems of capacity and quality in the FET sector in South Africa.” This PLTL workshop was a part of the second wave of the USAID/SA funded FET initiative conducted by Prince George's Community College, Largo, Maryland, to provide ten weeks of training sessions which focused on:

- teaching skills and strategies,
- advanced curriculum development methods, and
- educational management expertise and materials development knowledge (as applied in U.S. high schools, community colleges and state education departments).

The SAE are currently engaging in job-shadowing, on-the-job training, student-teaching, institutes and workshops.

Following a weekend bus tour of Washington DC, worship at the Greenbelt Community Church, a cultural exchange hosted by the Lambda Gamma Gamma (ΛΓΓ) Chapter of Omega Psi Phi Fraternity, and having received a joint donation of scientific graphing calculators from the fraternity and the Andrews Air Force Base Parrish Council, the SAE were ready to work.

The workshop opened with a PowerPoint outline of the driving force behind and history of the PLTL initiative, followed by a presentation of vision, mission, goals and objectives for the PLTL project in my classroom. The first exposure, a video clip of a college algebra PLTL group led by PGCC student Phillip Sylling, provoked much inquiry from the SAE as Phillip employed real, active and discovery methods to build dog pens (of constant perimeter but varying dimensions and area), from a model fence made of cash-register tape. Phillip's PLTL team performed an activity/experiment, collected data from it, and used that data to calculate results. Their analysis of the data and results led the team to discover a polynomial expression for determining the area of a rectangle as a function of its width. The team evaluated their formula by testing it against their

experimental results. Finally, they determined the domains of their variables.

The SAE took special note of Phillip's wait time for responses, and the fact that he never gave an answer. I took the opportunity to demonstrate the use of technology in the classroom by using a Texas Instruments TI ViewScreen 80,81,81,83 projection system and Excel to show how the team could have also graphed their data and/or performed regression analysis to arrive at the same answers.

Then it was time for the SAE to actively participate. Their activity was "Sandwich-making as a model for learning stoichiometry." The concept of cooking by recipe was transferred to carrying out a chemical reaction by balanced equation. The concepts of stoichiometrically matched amounts of reactants, limiting reactants, reactants present in excess, theoretical yield, and percentage yield were discovered in this guided activity.

The workshop was concluded with a PLTL favorable statistical comparison of homework, quiz, laboratory performance task, exam, and attrition data for one general chemistry and twenty Anatomy and Physiology PLTL classes versus non-PLTL classes.

What an overwhelming response! Quickly, the SAE compiled a contact list, which nearly every member signed, requesting supplemental materials (to their PowerPoint handouts and workshop activity packets). Tisilio (cultural name pronounced "Tuh-dee-so") Marshall (Christian name) Madimane, head of the Natural Science department and a Physical Science instructor at the Teto High School in the Free State Province reflected: "In South Africa, all information comes from the teacher.

This type of teaching (PLTL) allows the student to be more responsible..." His sentiments were echoed throughout the group. Teachers, principals and administrators all wanted to know more about PLTL. Tisilio later shared with me notes from his journal concerning a meeting of the chemistry teachers; their consensus was as follows:

"For the people who were chemistry people, we followed what was happening and were quite impressed. The other thing was, it was a simple method for introducing how to balance equations...The content was not strange—the sandwich model was practical—which means you move from what is known to learners to the unknown and from the simple to the complex...The communication was in both ways...The element of creativity was there—We used something not intended for the laboratory to explain the concept."

At the conclusion of this ten-week educational odyssey, we at PGCC hope the impression of the PLTL model will have been significant enough to warrant the SAE's concluding report to their government include a recommendation for the integration of PLTL into South African teaching methodology.

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