Farahnaz Movahedzadeh
Liaison - Department of Biological Sciences
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In recent years HWC has collaborated with other higher education institutions in conducting and presenting the outcomes of research focusing on why students fail courses (and their college education) from three perspectives: students' (2013) [1], faculty (2014) [2], and those of academic leaders (2015) [3]. In those studies, indirect surveys of participants provided concrete root-cause factors for students' failure at college and university levels. Student ***motivation or interest*** was mentioned by all three groups as something they perceived as a critical factor in student success or failure at the college level. Since motivation and study habits, as well as academic readiness and student attitudes (mentioned first, second, third, and fourth most frequently by students) are largely under the control of the students, it is not surprising that in our surveys all three groups strongly indicated that student success is primarily the student's responsibility; all three groups, however, also indicated that instructors and college administrators also have important roles to play in keeping students motivated.

Based on the view that faculty and administrators can also enhance student motivation, I developed an approach in my Micro 233 and Bio 250/51 sections designed to clarify student goals and stimulate their progress toward these goals. I have used this approach for the past six years in a total of 23 sections of the two courses. The first step in the process is to administer the following survey to students on the first day of class:

1. What are your goals in taking this course?
2. How do your course goals fit in with your goals in life?
3. List the steps and actions you plan to take to achieve your goals in the course.

I collect the students' responses to this questionnaire and return the responses to them at the semester midterm, at which time I ask them to reflect on their progress in the course and submit written answers to the following questions:

a. Have your goals changed from the beginning of the course? If so, in what way and why?
b. What is your plan to adjust your efforts in the course to better achieve your goals?

The written responses are further addressed in face-to-face meetings with the instructor.

To determine whether this approach produced a positive effect on student performance in my courses and beyond, three measures of student success have been compiled and are available for further analysis in a comparative framework, that is, in comparing results for these students against those who did not share in the goal-setting and reflective process described above.

Transfer rate to 4-year institutions: The percentage of students who enrolled in at least one course at a 4-year institution after successful course completion (i.e., with a grade of C or higher). For my 23 sections from 2013-19, this rate was 93.3%. Data were obtained from the National Student Clearinghouse portal, which is linked to the OpenBook portal.

Persistence rate: The percentage of students who finished my courses successfully (i.e., with a grade of C or higher), measured against the number of students enrolled on Day 1. For my 23 sections from 2013-19, this rate was 93.4%.

Retention rate: The percentage of students successfully completing my Micro 233 and Bio 250/51 courses (with a grade of C or higher) who took at least one more course at a Chicago City College. For my 23 sections, this rate was 64.1%. This lower rate (compared to persistence) might result from the fact that all my sections were in 200-level courses, after which graduation or transfer to other institutions would be a strong possibility.

Data analysis: The three measures determined above—transfer rate to 4-year institutions, persistence rate, and retention rate—will be compared to the current overall average rates over the 2013-19 period for the Biology department and Harold Washington college. Requests for these departmental and college-level data have been submitted, but not yet received.

Stage 1 – Outcome Definition

Students with strong self-motivation apply their perseverance, mental capability, and energy to gain the required knowledge and skills needed to succeed in new courses and programs no matter the difficulty of the task.

Stage 2 – Assessment Research and Design:

The challenge was how to motivate every individual student to increase persistence, retention and transfer rate to four-year institutions. A questionnaire designed to engage students in setting goals as an important first step to achieving them was developed for the first day of the class (23 sections of Micro 233, Bio250/251). In this study a descriptive survey (with three questions) was prepared by the team that were involved in the research conducted on "why students failed" described before. The form was then returned to students at the midterm of the semester, and students were asked to read their answers and write their reflections. This was followed by a face-to-face meeting with their instructor.

Stage 3 - Pilot Assessment Tools and Processes:

23 sections of Micro 233 and Bio250/251classes taught from 2013-2019 were investigated to pilot the assessment tool, and the results were processed. Persistence, retention and transfer rate to four-year institutions were collected using OpenBook®.

Stage 4 – Administer Specific Assessment:

After successful analysis, more faculty from the Department of Biological Sciences will be invited to use this tool in Fall 2020. Including both 100- and 200-level classes would better mirror the diversity of our student body.

Stage 5 – Data Analysis:

The review of methodology and findings will be presented to the committee in Fall 2020, and feedback will be received.

Stage 6 – Supporting Evidence-Based Change:

Depending on the results of this study in a comparative framework, committee members will decide whether to recommend the above approach to other faculty members at HWC and other City Colleges.

References:

1. Cherif, A., Movahedzadeh, F., Adams, G., Dunning, J., "Why Do Students Fail? Students' Perspective?", April 5-9, 2013, HLC annual conference, Chicago

2. Cherif, A., Adams, G., Movahedzadeh, F., Marty, M., & Dunning, J. Why Do Students Fail? Faculty's Perspective, April 10-14, 2014, HLC annual conference, Chicago

3. Cherif, A., Movahedzadeh, F., Martyn, M. "Why Do Students Fail? Academic Leader's Perspective", HLC annual conference, March 29, 2015, Chicago