Office of Community College Research and Leadership

Employing Content-Based Curricula In Nursing at Illinois Central College to Improve Equity and Outcomes for Students

by Edmund Graham

Since the creation of (Pathways to Results) PTR in 2009, Illinois Central College (ICC) has participated in all but one year, working to improve outcomes across a number of different pathways. ICC has been innovative in its use of PTR over the years, and the 2014/2015 PTR project was no different. The ICC team worked to identify parallels between PTR and their institutional program review process in order to create a more effective program review process. Through these processes ICC identified disparities within and between pathways by race/ethnicity and gender.

Identifying the Problem at ICC

The ICC team's analysis of pathway data revealed a disturbing trend. Student success as measured by performance on the nursing-specific licensure exam called the National Council Licensure Exam (NCLEX), and other industry-specific exams, was steadily declining. They also found, Black students were completing at lower rates than their White counterparts in both the RN and LPN pathways. Beyond this the team found areas for improvement related to student readiness, advising, and exposure to the program. This led to a key goal for the Nursing faculty at ICC: to improve the readiness of students for industry-specific exams (e.g., NCLEX) and ultimately to strengthen pathways for students into the workforce.

ICC's Improvement

This team, by its own admission, began its Year One project with an initial deficit-type assumption that declining exam performance was a result of declining readiness amongst its student cohorts. If this were in fact the case, then process changes to address things like recruitment and marketing processes, orientation, and stronger tutoring programs were potential solutions needed to address this issue. As the team closely analyzed their data from an outcomes-focused equity lens, it became clear that the poor exam performance did not reflect poor orientation practices or issues with student readiness; rather, the curriculum was not preparing students to succeed on their licensure exams or as healthcare professionals.

ICC decided to redesign their curriculum from a technical, content-based curriculum to a concept-based curriculum in order to improve outcomes (industry-specific exam scores) and critical thinking amongst these future healthcare professionals. This new curriculum and pedagogical model would integrate broad nursing concepts in what is called a "concept-based curriculum," an integrated, applied, and active approach to learning that helps students flex academic, problem-solving, and soft skills "muscles" simultaneously. Their improvement effort is a multi-year plan beginning with two primary components for this initial stage of work: 1) a redesign of the curriculum from a content- to a concept-based curriculum, and 2) faculty development. ICC's improvement efforts are building capacity, creating shared understanding amongst institutional agents, and engaging faculty in distinct roles for the project's execution. This is a process that has required a careful scan of the current environment, creating systems for sharing

About Pathways to Results: Implementation Partnerships

PTR is an outcomes-focused, equity-guided process to improve student transition to and through postsecondary education and into employment. The process engages community college practitioners and their partners to identify and understand the problematic aspects of systemic design--whether processes, practices, policies, or pedagogies--and to find sustainable solutions that will support equitable student outcomes. In 2016, a second project year was added to the Pathways to Results model, titled PTR: Implementation Partnerships. Teams who participated in an Implementation Partnership, or "Year Two," project work to implement, evaluate, and scale their work in a network of other colleges striving to improve equitable student outcomes in innovative ways.





Readiness entering pathway and readiness/outcomes on NCLEX exam

Curriculum redesig
Content to concept
based curriculum

Improve critical thinking and preparation for industry-specific assessment (e.g., NCLEX). Improve readiness, completion, and industry-specific certfications (e.g., NCLEX)

Evaluation

Illinois Central College's Intervention Logic Model

relevant and meaningful information, and creating an immediate plan for an intensive professional development program necessary to shift not only content but also pedagogical style to a more active, engaged, and relevant model for diverse student success.

What We Know from the Field

There is an increased interest nationally in moving to a concept-based curriculum in healthcare programs in order to improve student performance on assessments, including the NCLEX and other diagnostic and readiness indicators. The intent is to develop healthcare workers to better address today's healthcare needs in a more responsive and critical way. Edwards (2015) found students in concept-based healthcare programs had higher first-time pass rates than those who experienced contextspecific curricula. Beyond that, students experiencing concept-based curricula had higher diagnostic mean and readiness scores compared to students experiencing content-based curricula. Harrison (2016) found similar benefits related to concept-based curriculum in associate degree nursing programs, specifically related to first-time pass rates on NCLEX, the probability of pass scores on diagnostics and on critical-thinking measures. This sort of integrative pedagogical change is also in line with movements for pedagogical reform being applied across higher education. Many educators and college leaders recognize that today's students are more successful and are best prepared for success after college when their learning is integrated with and applied to unscripted problems (Boix Mansilla, 2008).

Notes on Scaling

Given the growing national interest in concept-based curricula and its limited adoption in the state of Illinois, ICC's well-documented, evidence-based approach to making this change is an ideal intervention for scaling. Not only can this change be adopted by other nursing programs, the notion of redesigning curricula around active learning and problem-based approaches can be applied in almost any career and technical education or academic program.

Many efforts to improve community college student success begin with an assumption that either students' starting aptitude is to blame or that solutions should be centered in process changes like advising, orientation, or guided course sequences. Indeed, these types of issues, while challenging to solve and often critical to success, sometimes prevent teams from analyzing the classroom pedagogies and curricula. This is perhaps for good reason; while process features can often be changed within the course of a single academic year, a deep curricular or pedagogical change requires overwhelming faculty buy-in and as many as two to five years to implement due to curriculum design and approval processes. These hurdles did not deter the ICC team. The ICC approach to creating change, based on disaggregated use of student outcomes data and thorough evaluation of the impact of interventions on students, will likely provide useful benchmarks in terms of an implementation process for future teams.

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