

QEP Proposal 16

Title: Transforming the UTC experience with Open Education Resources

Summary: A commitment to strongly supporting the adoption, adaptation, and authoring of Open Educational Resources (OER) is a commitment to improving educational access and achievement for students which promotes equity, inclusion, and community engagement in course materials while also supporting the use of engaging pedagogical approaches. Transforming the UTC experience through the creation and use of OER with a local and diverse focus will result in engaging and affordable education, improving student achievement and progression. With success, we will be able to create Open pathways through general education and participating majors, offer students opportunities to create diverse and community-centered educational resources, and reward faculty for creating transformative courses and OER.

Rationale/Problem Statement/Growth Opportunity: Open Educational Resources (OER) are teaching, learning, and research resources that reside in the public domain or have been released under an intellectual property license that permits their free use and re-purposing by others. Open educational resources include full courses, course materials, modules, textbooks, streaming videos, tests, software, and any other tools, materials, or techniques used to support access to knowledge. The movement to adopt, adapt, and author OER is surging across the world in response to continued high course materials costs and the need for students to have prompt access to high-quality affordable course materials with as few barriers as possible.

Programmatic support of OER adoption, adaptation, and authoring will be an effective way to meet the multifaceted QEP objectives of cohorts, collaboration, and diversity, as well as the strategic goal of community engagement. OER are a way to diversify course materials because they are often created with an eye toward increasing representation and accessibility, and their open licenses allow users to adapt existing open materials to include locally relevant or diverse materials or include newly created materials within the existing texts. With programmatic support, UTC can build on existing programs to expand the number of OER projects to include teams of faculty working on large multi-section course textbook adoptions and adaptations, creating resource banks for disciplines, and authoring new OER materials. OER encourage collaborative learning and high impact practices in open pedagogy, the co-creation of material with students. Widespread adoption of OER could mean the ability to create “Open Pathways” through the curriculum, which would integrate well with student cohorts. Students would be able to select low- or no- cost courses to meet general education or even core major requirements. Establishing low- and no- cost Open Pathways would be a strong draw for students looking for an engaging and affordable college experience.

In Chattanooga and across Tennessee, momentum supporting OER is growing. The success of UTC Library’s Affordable Course Materials Initiative is indicative of interest from faculty, and the program has been recognized as a part of improving student achievement and progression with support from Soar in Four funds. The UT System supported the development of OER programs at all campus with a One UT grant establishing cross-campus collaborations and resource development. In Tennessee, TBR has invested in a second round of grants totaling nearly \$500,000 to develop OER in the community colleges and a grant of \$100,000 is supporting LGI programs. The Tennessee Higher Education Commission is supporting OER efforts at all institutions through their Tennessee Open Education platform and surrounding program, including a legislative agenda. Now is an opportune time to focus on opportunities and growth in Open Education.

More programmatically supporting OER adoption, adaptation, and authorship makes sense for our students and our community, and is strongly aligned with our strategic goals, creating a financially attainable education with the opportunity to employ more effective and engaging pedagogies. OER can be part of developing online programs that are affordable, accessible, and of the highest quality. Low- or no- cost online degree programs will be a strong draw for students, especially those from traditionally underrepresented groups. Encouraging creation of Open Educational Resources has great possibilities to support curriculum strongly aligned with regional workforce needs, through adaptation or creation of materials catered to local contexts. Faculty interest in creating OER has grown as the COVID-19 pandemic has highlighted the need for affordable, available, and engaging materials.

OER are high-quality resources proven effective with a growing body of research. The Open Education Group's review project (<http://openedgroup.org/review>) collects and analyzes research into the efficacy and perceptions of OER. Hilton's 2019 meta-study of the literature (<https://link.springer.com/article/10.1007/s11423-019-09700-4>) concludes "there is an emerging finding that utilizing OER simultaneously saves students money while not decreasing their learning. The facts that (1) more than 95% of published research indicates OER does not lead to lower student learning outcomes, and (2) the vast majority of students and faculty who have used both OER and [commercial textbooks] believe OER are of equal or higher quality make it increasingly challenging to justify the high price of textbooks." This finding, combined with the ability to customize materials to meet strategic goals, make OER an ideal candidate for a QEP program.

Expected Outcomes/Impact on Student Learning or the Learning Environment: In a UTC experience transformed with OER, increased student success characterized by achievement and progression will be part of a larger change that includes increased student engagement with the curriculum, awareness of and appreciation for diverse local and international cultures and experiences, and participation in the creation and dissemination of knowledge throughout their collegiate experience. Courses using OER will mean that students have first-day access to low- or no-cost course materials in an array of formats that fit their learning needs. Course materials will be customized for the UTC learning experience, and students will feel that course materials are highly aligned to their courses, their lives, and their futures. Studies have shown that student success, characterized by higher achievement and lower drop/fail rates will result, particularly for students from historically marginalized populations. Supporting OER adaptation and creation will result in a recommitment to high impact practices and open pedagogy, where students will be active participants in creating course materials that increase the representation of diversity in the curriculum and reflect the Chattanooga experience.

In sum, students will:

- Have lower course materials costs
- Have first-day access to course materials
- Feel that course materials are highly aligned to courses
- Feel that course materials are very relevant to their lives and futures
- Higher overall grades
- Lower drop/fail rates
- Engage in knowledge creation and dissemination through open pedagogy projects and feel that they are a partner in the scholarly project.

Strategies/Actions to be implemented: There are many ways to encourage, support, and reward the adoption, adaptation, and authoring of OER, and the following possibilities are not intended to exclude other avenues. Strategies for implementation can build on the model of the previous successful QEP which integrated experiential learning into the UTC experience.

Several other OER programs use project grants that fall into tiers to organize and incentivize projects. Project grants for individual or groups of faculty could range, for example, from \$500 to \$2500 for adoption of OER, based on the size and complexity of the adoption (for an individual course or a large multi-section adoption), from \$500 to \$7,500 for adaptation of material based on size and complexity of project, and from \$2,500 to \$15,000 for authoring of material based on the size and complexity of project, with both adaptation and authoring grants requiring open publication of materials as a condition of the grant. Using ranges will allow for a range of projects to be included in each area, and for projects to include one or many faculty. Review of grant projects for funding and recognition would incorporate the goals of the QEP, looking at size and complexity of the project, student impact of the project, and most importantly, the role of diversity and collaborative learning in the project.

Faculty professional development through workshops, self-paced courses, creation of communities of practice around adopting and adapting OER, and other training opportunities is corresponding avenue of implementation, which could track with the grant program or operate independently.

Programmatic support of campus publishing through value-add services like page-setting and open publishing in UTC Scholar and other platforms would be a valuable addition to current and proposed services, if properly resourced.

Departments, colleges, and programs could also be leaders in implementation, making program-level commitments to open pathways in their programs, where students would be able to complete core requirements or entire majors with only low- or no-cost courses that use OER. This would be an excellent opportunity to align with the strategic goal of creating more online degree programs, using Quality Matters and OER to ensure that the new online programs are both of the highest quality, and are available with low- to no-cost course materials.

Course marking could be a key component of this initiative -- listing in the course catalog which courses are low- and no- cost or have adoption OER -- so that students and advisors would be able to make informed decisions about enrolling in low- or no-cost courses.

Students: Students enrolled in courses with OER adoptions or OER elements or which include Open Pedagogy, identified by participation in programs, will be impacted. Depending on the organization of the program, these could be students within identified learning communities, majors, or tracks, in addition to a range of students in the general population which grows as courses are added to the list

Assessment: Transforming the UTC experience with OER presents a rich opportunity for assessment and pedagogical research. A range of assessments based on the OER Research Toolkit (<https://openedgroup.org/toolkit>) and other published surveys and studies is possible, using the COUP framework: cost, outcomes, usage, perceptions. We will be able to examine impact on student achievement, student and faculty satisfaction, cost savings, and OER usage modes and rates. Grant programs offer their own set of metrics to measure participation and reach of programs as well.

Resources Needed: While significant investment will be needed to develop this proposal, the return on investment in student savings, as well as in student and faculty engagement, will be large. Ongoing funding for faculty project grants ranging from small to large across the institution will be key in standing up the program. Additionally, personnel will be necessary, both in volunteer capacity – such as

participation on working group or advisory board for grant review – and in ongoing capacity to provide support for faculty training, specialized support in taking OER works from content completion to publication, and in clerical support to manage project data and related items. Space will be needed to house this additional support staff as well, which could be at the student, staff or faculty level depending on responsibilities. Involvement of the Scholarly Communications Librarian, who manages the Affordable Course Materials Initiative and campus open publishing will be necessary, but additional support will be necessary to expand programs to fill the expressed need on campus and the potential for additional involvement. Support for software and subscriptions will also be necessary to develop high quality OER publications, using applications such as Pressbooks EDU, and provide the best possible professional development to staff and faculty, with partners like OpenStax and the Open Education Network. Investment in these opportunities with training, grants, and publications returns larger than investment with ongoing savings for students and re-engagement with the curriculum for faculty, and creation of textbooks and other course materials raises the profile of the institution.

Research/Best Practices Gathered to Date: There is a growing literature describing best practices for establishing and growing OER adoption programs, OER course marking, and OER research, some of which is referenced above. This proposal builds on the success of the Library's ACMI project as well as several other programs across the US.