1.0 The Evidence Towards Impact: The Maricopa Millions OER Project
Lisa C. Young, Ph.D. and Paul Golisch, Maricopa Community Colleges
lisa.young@scottsdalecc.edu, paul.golisch@paradisevalley.edu

Abstract
The Maricopa Millions Project www.maricopa.edu/oer is designed to scale OER usage throughout the ten-college district by remixing and adapting current models from across the country and world. A steering committee has been established to develop and implement a comprehensive strategic plan to save our students $5 million over 5 years in textbooks and course materials.

Keywords
OER, Scaling OER, Reduced costs, Student impact, Savings, Research, Student focus groups, Student experience, Faculty data, Access

The Maricopa County Community College District (MCCCD), one of the largest community college systems in the United States, is comprised of ten individually accredited community colleges and serves over 260,000 students. The MCCCD has developed a project called the Maricopa Millions Open Educational Resources (OER) Project, which is saving students money and creating greater access to learning materials using OER. This paper will provide details on how a very large community college district is developing awareness of OER to faculty and students, increasing use of OER and documenting critical measures. This paper will provide details on how they are scaling OER from pockets of innovation to a strategic implementation to target developmental education courses and high enrollment classes. Data on faculty awareness and use as well as student awareness, use and satisfaction, student performance, evidence of access to learning materials, and cost savings will be shared.

The Maricopa Millions OER Project was created to foster a District-wide culture that actively encourages, supports, and sustains the use of OER for courses at all levels. The project has invited students, faculty members and administrators to work together to increase student-learning opportunities through the use of open materials and to work together to address the challenges of long-term OER sustainability and implementation.

The Maricopa Millions OER Project includes development of a strategic, sustainable OER infrastructure that includes: awareness, professional development, OER development and technical support, marketing and technical infrastructure.

The driving objective for the project is to save MCCCD students $5 Million Dollars over five years through the use of OER materials.

The project, which began in Summer 2013, intends to accomplish this through the following objectives:
- Create an OER support team/strategic team to carry out the initiatives of the OER project (completed).
- Determine the current state and build awareness of OER in MCCCD (in progress).
- Create MCCCD OER Standards and guidelines for development and reuse.
• Conduct a pilot project that integrates OER into transfer degree courses and their prerequisite developmental education courses that can serve to model a process that can be adapted elsewhere in the curriculum (in progress).
• Develop methodology and conduct ongoing assessment of effectiveness and impact of the OER Project (in progress, see below).
• Support the integration and sustainability of OER across the curriculum (in progress).
• Maintain current and establish new connections with national OER initiatives/groups (in progress).

In an effort to increase adoption of and use of OER, the Maricopa Millions OER Project is working to recruit faculty teams to adopt and create OER learning materials. A call for proposals was conducted during the Fall 2013 semester, 31 statements of interest were received and 11 full proposals were submitted for six different high-enrollment courses. Team submissions by faculty from multiple colleges were encouraged. This strategy was intended to increase adoption of the materials at multiple colleges. Three faculty teams were selected to develop developmental reading, first-year composition I and II. Faculty teams selected have been provided with training and support during the Spring 2014 semester for them to develop learning materials including course content/textbook, assessment, and other learning aids. Research, adoption and development of these materials is being conducted during the Spring 2014 semester and the courses will be piloted using these OER materials during the Fall 2014 semester. An additional call for proposals for Phase 2 of the project is being conducted during the Spring 2014 semester for development in Summer and Fall 2014 and piloting in Spring 2015.

Throughout the Maricopa Millions OER Project, data is being collected to form a longitudinal study over the five-year period which includes faculty data, student data, information on student access to materials and cost savings. Data is being conducted each semester of the academic year.

Faculty data include awareness and use of OER. Initial findings for the first semester of the project show that there are pockets of OER use but little strategic use of OER across departments with the exception of mathematics at one of the colleges (Scottsdale Community College). Additionally, data show that some faculty are creating and adopting OER without intending to do so or even knowing that they are using OER. Many faculty are interested in providing no cost and low cost options for learning materials for their students. As the Maricopa Millions OER Project continues with OER training and development during the Spring and Summer 2014 semesters, additional data will be collected on the training program, resources used for finding OER learning materials, satisfaction with the quality of the Maricopa Millions OER Project, and input into the adoption/development of an OER quality rubric for evaluation of quality of OER materials.

The inherent flexibility of Open Educational Resources enables faculty to incorporate the materials in a variety of formats. The ability to revise and remix content makes OER an excellent option for flipped classrooms, hybrid and online classes and even Massively Open Online Courses (MOOC). Faculty are encouraged to license their materials with a Creative Commons Attribution license (CC-BY). Faculty will share (both live and through video recordings) how they have collaborated and remixed open videos, textbook excerpts, and other
materials to fit the needs of courses in online, hybrid and in-class delivery methods.

Student data, including satisfaction and use of OER materials, student success data, and student adoption of OER materials are currently being collected. During the fall semester, this data was collected through student surveys, focus groups, evaluation of student success data and information from the bookstore. Initial findings indicate that once students are exposed to OER learning materials, they seek out future courses based on the offering of OER materials. Furthermore, students have shared that they are more apt to use OER materials as compared with publisher textbooks. When OER materials are offered through the bookstore, students are 33% more likely to purchase the text than under traditional circumstances. Student success data to date has indicated that students using OER materials are performing as well as students using publisher materials. In the Fall of 2012, Scottsdale Community College math students were surveyed and overwhelmingly stated they would recommend the use of the OER materials to classmates. (Table 1)

<table>
<thead>
<tr>
<th>I would recommend the use of these materials to my classmates.</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>No response</td>
<td>26</td>
<td>2.8</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>483</td>
<td>53.1</td>
</tr>
<tr>
<td>Slightly agree</td>
<td>210</td>
<td>23.1</td>
</tr>
<tr>
<td>Neutral</td>
<td>133</td>
<td>14.6</td>
</tr>
<tr>
<td>Slightly disagree</td>
<td>33</td>
<td>3.6</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>25</td>
<td>2.7</td>
</tr>
<tr>
<td>Total</td>
<td>910</td>
<td>100.0</td>
</tr>
</tbody>
</table>

In addition to student and faculty data, information on cost savings and student access has been generated. The Maricopa Millions OER Project team evaluated a number of cost savings models used for determining the money saved in various OER projects across the world. Cost savings are being calculated by (1) identifying courses that are using OER materials. This has been done via survey to date; however revisions are being made to the student information system so faculty can report in the schedule if they are using OER materials and reports can be run with this information. (2) Determining a realistic class size. The OER Steering Committee determined that a class size of 20 students was a conservative yet realistic number to use. (3) Determining average textbook cost. The OpenEd conference held November 2013 in Park City, UT generated the cost savings using a figure of $100 US as an average textbook cost. Additionally, calculations were run to determine the impact of used textbooks and book rentals, which resulted in costs aligned with $100 US when running rates of purchase of these three modalities of purchasing texts. Therefore this value of $100 US was also used for Maricopa Millions purposes.

Initial findings indicate that the Maricopa Millions OER Project is resulting in satisfied students and faculty in regard to the quality of the materials and the access to OER learning materials. Cost savings for the Fall 2013 was determined to be $665,175 US. Cost savings are currently being calculated for the Spring 2014 semester.