
ANNOTATION

Fay, Christopher. "Implementing Open Education Resources in a Sustainable Manner: A Two-Case Study Using a Sustainable Model." EdD dissertation, Saint Mary's University of Minnesota, 2019. 131 pp.

This dissertation studies the integration of readily available digital instruction materials in secondary schools in the hope that the findings and analysis provided by the author might aid schools in implementing the use of these digital resources (104). At a time when more and more technology is being used in schools for learning purposes and the rising cost of textbooks is accelerating the transition from print to digital materials, many schools are looking to the use of Open Educational Resources (OER) as a way to reduce costs of curricular materials. This study looked, then, to assess the sustainability of such a transition (6, 104). The qualitative research methodology employed by the author was that of a multisite study, in this instance a two-case study where both cases were studied at the same time (6, 41-44, 47).

Certain questions form the backdrop against which the issues being posed in the dissertation were pursued. Have teachers been prepared in the use of digital resources (19)? What support are teachers provided to develop their competencies in this regard (33-34)? Are there sufficient numbers of teachers at a given school (as opposed to a small handful) capable of and committed to this approach (4)? How readily accessible are the digital resource materials and how sustainable in the long term are these resources for teachers? Will such a transition, in fact, result in the desired reduction of costs (14-15, 20)?

A "critical function of the OER movement," it was noted, "is to stimulate academics to share information and knowledge within educational communities, as this supports learning and contributes to bridging demographic, educational, economic, and geographic barriers" (14).

Three factors were identified as essential to the sustainability of the integration of OER in K-12 schools: organizational learning culture (36-40); change management mechanisms (34-36); and effectiveness measures (9, 25-26, 31, 102-103). Consequently, the author reviews and synthesizes a number of organizational change theories and change management models (58, 93-95) and subsequently recommends a sustainability model (53-54, 103).

The review of relevant literature reveals that OER usage and implementation has focused on the college and university level (6, 14, 22) and that much of what is being published on this topic for K-12 schools is focused more narrowly on teacher preparation for the use of digital instruction materials and the alignment of these materials with Common Core State Standards (CCSS). Research does reveal that K-12 teachers are searching for better, more personalized resources, especially as they have felt pressured to meet CCSS (13). A significant gap is identified in the literature relative to OER sustainability (it is one thing to change, another to manage the change, and another to sustain the change). Furthermore, the literature review revealed a concern that

teachers have about the consequences of students doing so much of their reading on screens (104).

Research literature has also suggested the following. Teachers “found that OER allowed them to lecture less often” and that “students in courses that used OER more frequently had better grades and lower failure rates” (16). The culture of a school, the quality of OER materials, and unresolved technology issues were identified as three factors that could negatively impact teacher perception of digital format usage (18, 20-21). Some research data remains contradictory about OER implementation, suggesting that students “learn more from a well-designed textbook” and that “students who read on paper score higher than those who are reading on a digital screen.” (24-25). Yet, research data also suggests that OER usage generally leads to enhanced collaboration, partnerships, and knowledge sharing among teachers, improved quality, and support for independent learning (30).

In the analyses of case studies (62-92), attention was given to the role of human resource structures in sustaining, by design, OER integration in the school (61). Culture was also identified “as a great enabler of OER development usage” (63, 99-100) and as something essential to assess prior to attempting OER implementation (73). Elements of a school’s culture that positively contributed to OER implementation were the identification of a “champion” and the promotion of “more and more teachers becoming champions of OER” (63, 83-84, 89, 100-101), a “curriculum review cycle” process within which “OER is developed by teachers” (63, 87, 100), the importance of good communication and affirmation of teachers and implementation leaders (64, 100-101), and the reinvestment of “savings obtained by implementation of OER” to fund “teachers’ professional development needs” (64-65, 68, 74, 84, 101-102).

It is suggested that “OER implementation inspires teachers to collaborate more” (70), to be more collegial in their dealings with one another (76), and to improve curriculum and instruction (77). “Professional development is critical to creating a mindset for teachers” (75). Note was made of the positive role of an “institutional coach” in assisting teachers during the curriculum development process (70, 74-75).

A few findings of the dissertation are that student outcomes will be important to track in the ongoing analysis of OER implementation (16), that “measures of effectiveness” still need to be developed (65, 75, 77, 85, 87-88, 98), and schools need “to build and maintain expertise to sustain innovation” (85, 88). The key areas that surfaced “as key indicators in the sustainability of OER” integration in the learning processes were: “the importance of culture, measures of effectiveness, a curriculum review process, and an appropriate model for resource allocation” (105). An emerging issue that requires attention “is the intellectual property policy.” There is need to develop policies about OER creation and publication that help when a teacher leaves a school (85).

The author concluded the dissertation by recommending further investigation and reflection along the following lines: the ongoing relationship of teachers after OER implementation, teacher retention as a consequence of OER integration, student learning outcomes in consequence of OER usage, student engagement in OER courses, and the impact on academic achievement of students reading on screens (103-104).