Introduction

Within the past four years all 50 states and the District of Columbia have developed significant online learning opportunities for K-12 students (Watson, Murin, Vashaw, Gemin, & Rapp, 2013). K-12 online student enrollments in the US have grown from approximately 40,000 to more than four million in a period of fifteen years (Ambient Insights, 2011; Clark, 2001). Similar growth has occurred internationally, particularly in Australia, Canada, New Zealand, and several Asian nations (Barbour, 2014; Barbour, Brown, Hasler Waters, Hoey, Hunt, Kennedy, Ounsworth, Powell, & Trimm, 2011). While there is a developing body of research that supports the practice of K-12 online learning, most scholars agree that practice is out-pacing the availability of useful research (Barbour & Reeves, 2009; Cavanaugh, Barbour, & Clark, 2009; Hill, Wiley, Nelson, & Han, 2004; Rice, 2006).

While at an admittedly slower rate than the growth in enrollments, research in K-12 online learning has been picking up pace in the past decade and a foundation in best practice is now being laid. Still, state and national policy makers, online charter school management companies, and various advocacy organizations continue to push forward with innovative practices that lack an empirical basis. The consequences of non-reflective policy making and practice that omits the value of constructive criticism based on empirical evidence has an unsettling impact on learners. Most recently, the Center for Research on Education Outcomes (CREDO) at Stanford University published a national report investigating the outcomes of 158 full-time online schools across 17 states. The study found that the majority of K-12 online charter school students severely lacked academic gains in math and reading as compared to their counterparts in brick-and-mortar schools (CREDO, 2015). While experts hope virtual school leadership will internalize these results and seek evidence of effective practice, previous studies have not made noticeable impact on these contexts (Center for Research on Education Outcomes, 2011; Colorado Department of Education, 2006; Hubbard & Mitchell, 2011; Innovation Ohio, 2011; Joint Legislative Audit Committee, 2010; Miron & Urschel, 2012; Office of the Legislative Auditor, 2011; Ryman & Kossan, 2011; Zimmer et al., 2009).

This is not to say that K-12 online learning does not hold promise as an effective mode of instruction. However, it does call for responsible innovation practices that are reflective and data-driven. Additionally, it is not enough to study what does not work in K-12 online settings, but we - as experts - must also investigate and report instances of effective policy and practice in K-12 online and surrounding settings such as K-12 blended classrooms or online learning for non-K-12 students. These investigations test and narrow down promising practices that may serve K-12 online learners in the future. A special K-12 issue of *Online Learning* is an ideal avenue for such academic dialogue. The focus of this special issue of *Online Learning* is to present rigorous research specific to the context of K-12 education including systematic inquiry into promising practices, various schooling models, measures of quality, and parent and teacher experience. All authors have provided explanations of K-12-specific terminology to support readers new to K-12.

Special Issue Articles

Since *Online Learning* has not historically facilitated discourse between the online learning experts of K-12 and those in higher education, this issue begins with an expert's view of the field in K-12 online learning. Poureau's interview with Dr. Joe Freidhoff, the Executive Director of the Michigan Virtual Learning Research Institute. He introduces readers to what is currently understood in the body of literature and where research needs to head to have an impact on K-12 learners. This piece will be especially valuable to experts in the field of online learning in settings beyond the K-12 sector.

Our next piece by Rice and Carter presents qualitative results that expand on the roles and challenges of K-12 online educators, administrators, and support staff who serve students with disabilities in the online setting. To further inform best practice in serving K-12 learners who need additional interventions, Chappell, Arnold, Nummery, and Grant conducted a quasi-experimental study to investigate the impact of an online math tutoring support service for middle school students.

In rural environments, K-12 schools may depend on online programs to open opportunities to new courses. In Barbour's case study, he illuminates how one school in Canada used synchronous distance education to effectively engage groups of students in local learning communities. Borup, Stevens, and Hasler Waters also investigated effective practice in the high school setting. They interviewed parents of online high school students to better understand parental engagement behaviors and obstacles to effective parental engagement.

Two new texts in the field were also released and worthy of review. Mayse provides an account of the *Handbook of Research on K-12 Online and Blended Learning* edited by Ferdig and Kennedy. As a comprehensive open resource, this text holds promise to impact the field as a seminal read. Equally promising, Rycroft offers a review of *Online, Blended, and Distance Education: Building Successful Programs in Schools*, which was edited by Clark and Barbour.

From this special issue, *Online Learning* readers who are unfamiliar with the K-12 setting should take away a new understanding of the connections and commonalities of online learning in their own contexts and in the K-12 environment. While K-12 online learning is influenced by a fluctuating socio-political context, and the complexities of our younger learners, there is much to be learned and shared across settings. Those readers currently engaged with the K-12 online learning setting should take away the new promising practices presented in the special issue, and consider *Online Learning* as a new venue for academic discourse in our field.

Regular Issue Articles

As a re-branded journal that has recently merged with *Journal of Online Learning and Teaching*, there is a need to include articles in this issue that were not submitted to this special issue of *Online Learning*. The first of these articles by Scott, Temple, and Marshall serves as a bridge in this issue between the K-12 setting and higher education. In a special education teacher preparation course that was designed for the online setting using Universal Design for Learning principles, these authors found that participants in three different course sections perceived the course had positively impacted their preparation.

The issue of online learner readiness affects online learning outcomes, which is true in both graduate teacher education and undergraduate online learning. To better predict the readiness of first year undergraduate online learners, Yu and Richardson sought to test the validity and reliability of the Student Online Learning Readiness (SOLR) Instrument using an exploratory factor analysis. In this article, the authors found the instrument to be valid and reliable and make recommendations for use of instrument results, which could contribute to planning support structures.

To further support the process of planning, Picciano presents a systems model for planning college or university-level online programs. This systems model takes into account hardware, software, faculty development, infrastructure, finances, and policies. University administrators may find Picciano's description useful in planning and evaluation processes.

Our last piece in this issue by Ruby, Perna, Boruch, and Wang revisits massive open online course (MOOC) evaluation practices. These authors use sixteen University of Pennsylvania Coursera

MOOCs to apply measures of social media engagement to measure and compare learner engagement with course content. The authors suggest such measures can guide targeted instructional improvements in MOOCs.

With this issue, it is clear that *Online Learning* as a title and common theme suits the historic roots of this publication by merging the legacies of the *Journal of Asynchronous Learning Networks* and the *Journal of Online Learning and Teaching*, while inviting the growing K-12 online community. *Online Learning* promises to be an influential center of academic discourse.

Anissa Lokey-Vega and Michael K. Barbour - Guest Editors

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