

RESEARCH AND PRACTICE IN K-12 ONLINE LEARNING: A REVIEW OF LITERATURE

Cathy Cavanaugh, University of Florida
Michael Barbour, Wayne State University
Tom Clark, TA Consulting

The Virtual Schooling Literature

The literature related to online learning programs for K-12 students dates to the mid-1990s and builds upon a century of research and practice from K-12 distance education.

While K-12 online learning programs have evolved and grown over the past decade, the amount of published research on virtual schooling practice and policy is limited.

The current literature includes practitioner reports and experimental and quasi-experimental studies, both published and unpublished.

Our Approach

Many previous reviews of research in K-12 online learning reported on general effectiveness because of insufficient data to analyze success factors.

With the first ten years of virtual schooling data, reviews can move beyond endorsements of virtual schooling.

This study examined reports published online in 1996-2007 to reveal the emphases in virtual schooling research as well as the needs for future study.

Using qualitative synthesis, this paper integrates themes and insights from individual reports to establish an understanding of the entire body of literature.

The Purpose of the Study

A fundamental challenge in this field for program developers, managers, and instructors is locating guidance from successful practice and research.

This study reviews the online sources of literature in K-12 online learning and reports on a content analysis, both to inform the community about the nature of the literature at this early stage and to share with practitioner and scholarly communities recommendations for research and practice.

Document Coding

The exploratory content analysis interpreted the meaning and message of each document and summarized outcomes thematically (Merriam, 1998).

The categories revealed patterns of an emerging and maturing field of educational study. From the categories, an inductive process was applied for drawing inferences about the body of literature and about practice in the field (Merriam, 1998).

Document Coding

The categories were drawn from current emphases and standards within the field:

- the models of virtual schooling (seven categories)
- the roles of professionals in virtual schools (seven categories)
- benefits and challenges of virtual schooling (ten categories)
- standards for virtual school courses (six categories)
- standards for virtual school teaching (thirteen categories)

Document Sample

From an initial sample of over 500 sources, 183 documents were found to meet the inclusion criteria:

- relating directly to K-12 online learning
- openly Internet-accessible

The documents included refereed journals articles and conference papers, books and chapters, evaluation reports, dissertations, and online publications.

The pace of publication in K-12 online learning rose steadily from 1997 - 2006 across all document types.

Each document was coded by two of the three coders. There was 83% inter-coder agreement.

Results: Virtual School Types

Type of Virtual School	Percent of Literature
Statewide	53
University	16
Consortium, multi-district	40
Single-district, LEA	35
Charter	27
Private	15
For-profit provider	17
Other	6

Based on Clark (2001) and Watson (2004)

Results: Professional Roles

Role	Percent of Literature
Teacher	83
Designer	37
Site facilitator	37
Administrator	56
Guidance counselor	17
Technology coordinator	24
Library media specialist	6

Based on *Professional Development for Virtual Schooling and Online Learning*, NACOL.org

Results: Benefits and Challenges

Benefit or Challenge	Percent of Literature
Motivation	37
Expanding educational access	63
High quality learning opportunity	47
Improving student outcomes and skills	38
Educational choice	32
Administrative efficiency	22
Start-up costs	42
Access issues	46
Approval/accreditation	24
Student readiness/retention	28

Based on Barbour, 2007

Results: Online Course Standards

Online Course Standard Area	Percent of Literature
Content	58
Design	46
Assessment	54
Technology	81
21 st century skills	36

Based on *National Standards for Quality Online Courses*, NACOL.org

Results: Teaching Standards

Online Teaching Standard	Percent of Literature
Teaching A-Credentials	37
Teaching B-Tech skills	17
Teaching C-Strategies-active	47
Teaching D-Leadership, feedback	48
Teaching E-Legal, ethical, safety	9
Teaching F-Experiential OLL	6
Teaching G-Special needs	40
Teaching H-OL assessment	28
Teaching I-Goals & standards	45
Teaching J-Data in instruction	14
Teaching K-Frequent assessment	7
Teaching L-Collaborate w/colleagues	15
Teaching M-Media & materials for education	32

Based on *National Standards for Quality Online Teaching*, NACOL.org

Recommendations

1. research on effective online teaching practices
2. research on success factors for online learning and remediation
3. research on effective K-12 learning communities
4. research that examines the quality of student learning experiences in virtual school environments, especially those of lower performing students

Contact us:

Cathy Cavanaugh,
cathycavanaugh@coe.ufl.edu

Michael Barbour,
mkbarbour@gmail.com

Tom Clark,
taconsulting@yahoo.com