# Chapter 6 Implementation of Online Education for K-12 School Children

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#### **ABSTRACT**

This chapter contains information found in literature surrounding online education in K-12 settings. It offers a description of the terminology, a brief history and evolution of online education, issues with the use of online education, and influences supporting online tool usage. Despite support for online tools in K-12 settings, empirical research shows discouraging results related to such usage. Considering this discrepancy, this chapter suggests that implementation of online tools be executed by an informed user. Thus, it is necessary to acquire a clear understanding of the terminology and characteristics of online tool delivery before implementation. Also, educators are to be aware of student's and teacher's learning and teaching experiences online to be able to offer an optimum educational setting. Being cognizant of participant's exposure to online programs can provide helpful suggestions, like the importance of parental involvement, the relevance of socialization for learning, and the influence of literacy in promoting a stable foundation for successful implementation.

## INTRODUCTION

This chapter is relevant for stakeholders in K-12 online educational settings. The growth of terminology surrounding online education is synonymous with its rapid technological advances. Thus, to be informed users, stakeholders are to be familiar with how the terms relate to each other for the purpose of choosing appropriate online tools, or researching and comparing online tools. As a result, terms will be defined using descriptions found in the literature that will in turn be used to convey an understanding of the history, growth, interests, issues and recommendations encompassing online education. Efficient and effective implementation requires that stakeholders be knowledgeable about all information pertaining

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to online education. Hence, knowledge of online tool usage in daily activities does not guarantee an effortless transition to teaching practices and learning modalities. The chapter focuses on this issue and others advocating for awareness of tools used in online education.

#### BACKGROUND

## Terms Associated With Online Learning

Educators may be confused with online learning if they are unfamiliar with its common terms. Distance education is the overarching category that encapsulates terms prominent in the educational technological field. Its definition refers to technology being used to deliver content to support learning when a teacher is not physically present. Learner and teacher are separated by space and in some cases time (Southern Regional Education Board, 2012; Waters, Barbour, & Menchaca, 2014). Online learning refers to receiving digital content via the Internet to support learning. In this chapter, online learning will be interchangeably used with e-learning and virtual learning (Staker & Horn, 2012). K-12 online learning is derived from the term distance learning where the online practices are for elementary and secondary students (Waters et al., 2014). Online tools are either teacher-centered (where teachers have control over access – when, where, and what) or learner-centered (where a student controls access – when, where, and what) (Yusuf & Al-Banawi, 2013). These two types can be further enhanced with the terms synchronous and asynchronous.

Synchronous learning is planned or arranged access to content at a specific time. Synchronous learning can be arranged by the teacher. Supplemental online programs and tutorials are used as synchronous online tools (Barbour & Reeves, 2009). Some online tools used for planned interaction are video chat, blogs, or e-mail.

Barbour and Reeves (2009) provided the following example of using technological tools in a synchronous manner. Using a whiteboard, a teacher delivers a lecture-style lesson of content to students who do not have to be in the same room as the teacher. Students interact with the teacher and class by providing comments or questions using audio or text-based tools during the lesson delivery or at a specified time.

Asynchronous learning implies anytime, anywhere access. It lends itself to being more learner-centered. Within this type of online use, asynchronous learning can be separated into dependent or independent categories. An independent asynchronous setting requires that students work alone. In most cases, students in this setting are not in a brick-and-mortar school structure; they could be at home or any place of their choosing. Dependent asynchronous tool use is when a student has access anytime, anywhere to content and information. However, a teacher of record (a teacher or manager responsible for monitoring the student's learning on an academic task, usually associated with a performance measure) provides student support. The hybrid model suggested by Waters et al. (2014) is an example of a dependent asynchronous model, where a monitor or teacher interacts with students to provide assistance while the student controls anytime, anywhere access. This model fits within the blended learning model and could be situated in a brick-and-mortar school.

Seen as combining the best of both online learning and traditional face-to-face learning, blended learning is an alternative model. This model has students attending a brick-and-mortar structure for courses with a teacher who delivers content using traditional face-to-face school practices with controlled content and delivery. Some of the time, students control time, place, and pace when they work asynchronously

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