

## Chapter 2

# Maintaining Motivation in Online Students: An Examination of the ARCS–V Motivation Model

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### ABSTRACT

*This chapter provides an overview of the major motivation theories, and examines how the ARCS-V model applies motivational theory to instructional design. The chapter also provides a cognitive framework to support aspects of the ARCS-V model. Special attention is given to course design and instructional practices aimed at reducing online student attrition and improving academic performance. Additionally, the chapter reviews research examining the utility of the ARCS-V model, as well as recommendations for implementation within the online modality.*

### INTRODUCTION

Educational technology improvements, availability of high-speed Internet access, increases in non-traditional student enrollment, and decreases in state funding are related to growth and sustained enrollment in online courses (Means, Toyama, Murphy, Bakia, & Jones, 2010). Growth in online offerings has outpaced the scholarship of online teaching and learning and consequently, and use of evidence-based instructional practices

are haphazard. This chapter aims to describe the prevalence of online education, with particular attention given to higher education, as well as summarize the ways in which grand motivation theories have been applied to online teaching and learning.

Online courses are those in which 80% or more of the content is delivered online, either synchronously or asynchronously (Allen & Seaman, 2013). Online courses are offered in K-12 education, but are more common in higher education (Means et

DOI: 10.4018/978-1-4666-9582-5.ch002

al., 2010). Recent data estimates that one million K-12 students participated in online courses (Zandberg & Lewis, 2008); whereas, approximately 6.7 million university students were enrolled in at least one online course in the United States (Allen & Seaman, 2013). Moreover, longitudinal growth in online enrollments has been fairly stable. For more than ten years, universities have experienced double-digit growth in online education per year; only recently have online enrollments dropped to 9.3 percent (Allen & Seaman, 2013). Although overall enrollments may be showing a slight decline, university online enrollment growth exceeds growth of the larger student body. To illustrate, between 2002 and 2011 the compound annual growth rate in online education was 17.3 percent, whereas, the compound growth rate was 2.6 percent for the higher education student body (Allen & Seaman, 2013). A plateau in online enrollments is expected, but is yet to be seen.

There are several factors attributed to the growth of online education in the United States. An increasing number of students are graduating from high school, which increases the number of students qualified to enroll in colleges and universities (Allen & Seaman, 2013). The economic downturn in recent years is speculated to have increased enrollments as education improves individuals' opportunities to gain meaningful employment (Allen & Seaman, 2010; 2013). Advances in technologies, Web resources, and learning management systems can be credited with long-term enrollment growth (Means et al., 2010), as well as decreased tuition costs and other associated student expenses (Lips, 2010). Finally, student demand for online education has dramatically increased online offerings (Allen & Seaman, 2007) as universities clamber to meet students' needs for the flexibility afforded by online education (Means et al., 2010; Stewart, Bachman, & Johnson, 2010a).

Cost is a chief benefit of online education. Decreased space and facility requirements, in addition to increased student access make online

education cost effective for universities (Bowen, Chingos, Lack, & Nygren, 2012; Parsad & Lewis, 2008), while costs associated with commuting and residential housing make it less expensive for students (Rickard, 2010). Reduced costs are not associated with inferior education. In fact, national data demonstrating the equivalence in learning outcome mastery further strengthens the argument for growth in online education (Russell, 2005). Bernard and colleagues (2014), in a meta-analytic study found online and face-to-face learning to be comparable; yet in an earlier investigation, Bernard and colleagues (2004) found a slight advantage for online students' mastery of course content in comparison to face-to-face students. These data coupled with the cost effectiveness of online instruction make online education appealing to students and universities leaders alike.

Faculty, however, have not shared the same enthusiasm for online education with their academic leaders. Both faculty and academic leadership recognize that online instruction requires more time and effort than face-to-face instruction (Allen & Seaman, 2013; Shea, 2007a; Stewart, Bachman, & Johnson, 2010b), but faculty members have additional concerns that inhibit their involvement. Some faculty members believe that the course content in their fields is not compatible with online education (Yang & Cornelius, 2005). Faculty also cite that they are inadequately trained to develop and/or deliver online courses (Panowski, 2004). Moreover, experienced online educators voice that they are not adequately compensated for their additional time and effort (Shea, 2007a; Stewart et al., 2010b). Perhaps most troubling is that faculty members often report that online education is of poorer quality than traditional education (Allen & Seaman, 2013; Stewart et al., 2010b). In fact, the most commonly cited cause of faculty refusal to participate in online education is related to the value and legitimacy of this delivery mode (Stewart et al., 2010b; Yang & Cornelius, 2005), and faculty acceptance has not improved significantly in the past decade (Allen & Seaman, 2011; 2013).

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