

Motivating the Online Learner Using Keller's ARCS Model

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INTRODUCTION

Several decades ago, Keller developed the Macro model of motivation and performance, the conceptual foundation of the attention, relevance, confidence, satisfaction (ARCS) model of motivation (Keller, 1987, 2010). Some might

wonder how a model that dates back to the age of the Apple II computer could remain applicable to today's learners, particularly those who are learning online. The following provides suggestions for ways in which online instructors might incorporate the ARCS model for teaching students in



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online environments. Table 1 provides a synopsis of many strategies instructors might wish to employ.

ATTENTION

When someone mentions attention in an instructional design context, it is fre-

quently interpreted as a preliminary step in the learning process limited to the introduction. For example, a student of Gagne (1977) might interpret gaining attention as the first instructional event of nine independent steps in the learning process. Within the ARCS model however, empha-

Table 1. Applying Keller's ARCS Model to Online Learning

ARCS Component	Strategy	Potential Area of Application
Attention	Include activities and assignments that require frequent interaction	Discussion/assignments
	Include visual elements such as videos	Lecture
	Utilize simulations	Assignments
	Vary the style of instruction (font, graphics, etc.)	Lecture
	Encourage debate	Discussion
	Introduce incongruity	Lecture
	Allow students to ask questions of each other	Discussion
	Use questions to peek curiosity	Discussion
Relevance	Incorporate humor	Lecture/personal correspondence
	Base curriculum on real world issues/scenarios	Lecture
	Target content to the learner's needs	Lecture
	Have student's make link between course materials and future goals	Discussion
	Outline objectives	Lecture
	Allow topic choices in activities	Activities
	Implement group work	Activities
	Use student experiences	Discussion
Confidence	Use personal pronouns and student names	Personal correspondence
	Provide supplemental information/links	Lecture
	Use guest speaker	Lecture
	Use a visual appealing professional design to give credibility	Lecture
	Utilize a simple interface	Lecture
	Include practice questions/reviews	Activities
	Provide grading rubrics	Activities
	Establish realistic expectations about requirements for success	Personal correspondence
Satisfaction	Scaffold the course appropriately	Course design
	Identify areas of problematic concern	Personal correspondence
	Allow students to explain their strengths or areas of expertise	Discussion
	Make content challenging but achievable	Course design
	Allow learner to control pace and sequencing	Lecture
	Provide supportive feedback	Personal correspondence
	Reinforce and provide praise	Personal correspondence
	Allow hands-on practice	Activities

Sources: Brennan (2002); Delgran, Vihstadt, and Evans (2015); Huett, Moller, Young, Bray, and Huett (2008); Johnson (2012); Jokelova (2013); Pinchevsky-Font and Dunbar (2015); Schartz, (2014); Taran (2005); Thompson (2016).

sis is placed not only on generating attention, but also sustaining it. Keller (2010) divided attention into three categories: perceptual arousal, inquiry arousal, and variability. The first two are best served to gain attention, while the last is best utilized to maintain it.

Although the first inclination to gain attention might be to use noise or movement, these strategies have limited application in perceptual arousal. Keller (2010) instead suggested involving concreteness and specific people and events to appeal to the learner's emotions. Three potential strategies that are easily applied to online learning include using videos, graphics, and comic strips for gaining attention. An example of the former is the Federal Bureau of Investigation's (2015) *We Regret to Inform You* lesson. The training begins with a video of a mother describing the murder of her young daughter. The powerful testimony evokes empathy and compassion in the learner, which strongly motivates. Alternatively humor might also serve a similar purpose, albeit on the opposite end of the emotional spectrum. For instance, Gorham and Christophel (1990) hypothesized that humor "might be directly related to increased attention, however, it has been difficult to provide consistent empirical evidence that such a direct relationship does exist" (p. 58). When humor is used in perceptual arousal, an elevated understanding of the target audience must exist because it can also be detrimental to the instruction if it distracts too much from the lesson (Wanzer, 2010).

Inquiry arousal can be accomplished by "creating paradoxes, generating inquiries, and nurturing thinking challenges" (Keller, 2010, p. 92). Posing a hypothetical question or scenario are tactics especially applicable to teaching online. Any strategy to encourage curiosity in the learner helps stimulate this type of attention.

Variability can be applied by using different presentation styles and multimedia. Adding a video or activity can accomplish

this objective, but Keller (2010) noted that even subtle format changes such as font, spacing, and layout can also help overcome boredom. If the lesson includes narration, consider using different speakers or altering one's speech to emphasize key points, as well as use narration that maintains learners' interest.

RELEVANCE

For adult learners, knowing why they need to learn something before undertaking to learn it is key (Knowles, Holton, & Swanson, 2015). Relevance deals with the perception of whether or not the course/material satisfies personal or career goals of the learners. Keller (2010) advocated relating instructional content to familiar experiences/ideas of the learners. Instructors can incorporate relevance by relating material to current events, which poses an excellent opportunity for an online scavenger hunt activity with this focus (Watkins, 2005). The content being presented might also prove relevant in the pursuit of other learning goals. If the content of one course can be applied to another (i.e., perhaps within a certain program), this can be brought to the learner's attention to increase motivation.

In a study by Frymier and Houser (1998), one of the methods to isolate and test the effects of relevance was to use the second person point of view instead of the third person in certain segments of instruction. By placing the learners in roles as opposed to worked models or examples, students might be more likely to visualize the application of the material, as well as relate to it, and therefore be more motivated to learn it. A mix of hypothetical scenarios and examples might be the best approach to combine the strengths of each.

Another strategy to apply the relevance concept is to share some of the information collected from the needs analysis, if one was conducted. What was the gap that drove instruction? Why was this course developed in the first place? Explaining

the goals, objectives, and rationale for learning the content might also help learners comprehend its relevance.

CONFIDENCE

Once you have captured learners' attention and they perceive it is relevant, then the instructor's task is to convince them that they are capable of accomplishing the task at hand. Keller (2010) wrote that "Anxiety and fear are much greater parts of students' lives than teachers realize" (p. 137). This is especially difficult to detect via online learning environments. The objective is to overcome this concern and foster the belief that there is a degree of control and predictability in the learning process.

There are numerous ways in which instructors might build learners' confidence. Instructors can make pep talk videos (what Keller calls "motivational messages") or emphasize textually that students are on the right track and can do it. Instructors can also send targeted e-mail messages to foster building their confidence by emphasizing to students that they are not the first to experience learning this challenging content (i.e., *Others have made it, and so can you!*).

When instructors provide formative feedback, they should emphasize students' strengths, as well as highlight specific ways in which they can grow. Additionally, scaffolding instruction, teaching within their zone of proximal development (Vygotsky, 1978), and checking for understanding are essential for building student confidence.

SATISFACTION

Keller (2010) wrote that intrinsic motivation is one of the most important elements of satisfaction but also the most difficult to influence. Extrinsic motivation, however, is more easily influenced, primarily through the use of feedback. Online learning provides the opportunity for this to be imme-

diate, which is priceless in building confidence. Providing fast recognition of correct answers and good work (even if automated) serves this purpose well. Assessment and grading must be fair and align with stated expectations. Keller (2010) advocated the use of "consistent measurement standards for all learners' tasks and accomplishments" (p. 189). Clear objectives can be supplemented with a rubric to assist in this area.

Newby, Stepich, Lehman, Russell, and Ottenbreit-Leftwich (2012) suggested allowing students to apply what they learn as soon as possible to build motivation through satisfaction. If it is not practical to accomplish this in a performance context, something like allowing learners to showcase their work to other students via a wiki or discussion board is a good substitute.

CONCLUSION

Keller's ARCS Model has many applications in online education. By including the elements of Attention, Relevance, Confidence, and Satisfaction, instructors can increase the motivation of learners even if they are geographically separated and content is taught asynchronously.

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