Introduction

The ARCS Model consists of four conceptual categories related to human motivation as well as a set of specific strategies which may be used to improve the general motivational aspects of a course of study. It also makes use of Keller's process called motivational design.

Expectancy-value theory, based on the work of Tolman (1932) and Lewin (1938), provides the foundation of ARCS. "Expectancy-value theory assumes that people are motivated to engage in an activity if it is perceived to be linked to the satisfaction of personal needs (the value aspect), and if there is a positive expectancy for success (the expectancy aspect)" (Keller, 1987, pp. 2-3). Keller separated "value" into two categories: "interest," which refers to attention-related issues, and "relevance," which refers to matters of perceived benefit and usefulness. He added a category for "outcomes" to cover the application of applied reinforcement and environmental outcomes that contribute to intrinsic motivation. Interest, relevance, expectancy and outcomes subsequently became attention, relevance, confidence and satisfaction respectively, giving rise to the acronym ARCS..

http://www.nwlink.com/~donclark/hrd/learning/id/arcs_model.html
http://www.arcsmodel.com/

The ARCS Model

The ARCS Model incorporates a systematic seven-step approach to the design process (Keller, 1997) which has been revised and refined based on further study (see Keller, 1999). This process can be summarized as define, design, develop, and evaluate. According to Keller, it is appropriate to use the ARCS Model "if the problem is one of improving the motivation appeal of instruction for a given audience" (Keller, 1987, p. 6).

A principle application of this system is to identify areas in which motivational strategies are appropriate. As mentioned earlier, overuse of motivational strategies can interfere with a student's intrinsic interest in a subject. The motivational design process requires an audience analysis to decide which motivational tactics are appropriate. Keller points out, "Learner motivation changes over time, however, and sometimes in unpredictable ways" (1999, p. 42). According to Keller, "When students are motivated to learn, they want to work on highly task-relevant activities. They do not want to be distracted with unnecessary motivational activities. For this reason it would be nice to have computer or multimedia software that can sense a learner's motivation level and respond adaptively.".

ARCS

Attention

Many simple techniques can be used to get attention, but the difficulty lies in sustaining attention. "The goal is to find a balance between boredom and indifference versus hyperactivity and anxiety" (Keller, 1987, p. 3).

Relevance

Perceived relevance with regard to schoolwork or future career goals may or may not be present intrinsically in a given course of study. Keller holds that a perception of relevance can come from the method of instruction, whether or not it is inherent in the content.
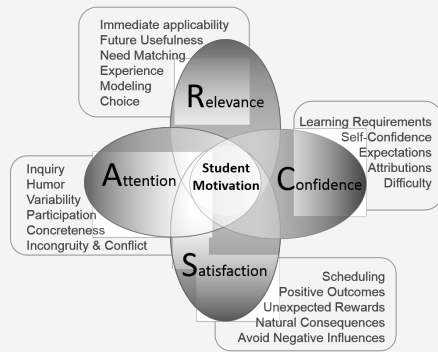
Confidence

Whether one succeeds or not, regardless of external factors or innate ability, depends to a great degree on one's feelings of confidence in the possibility of success. This can particularly affect a student's persistence. Keller points out that "fear of failure is often stronger in students than teachers realize" (Keller, 1987, p. 5). The Confidence strategies offered by ARCS are designed to help create the impression that some degree of success is possible given an appropriate effort on the part of the learner. Keller cautions, however, that it is important to "avoid creating this impression if it is false," thereby setting up unrealistic expectations..

Satisfaction

According to operant conditioning theory, the definition of task and reward, together with an appropriate reinforcement schedule, should cause people to be more motivated. A problem can arise if the use of these techniques is perceived to intrude on the student's rightful sphere of control. This is particularly likely to happen when the activities in question are those from which the student derives intrinsic satisfaction. "A challenge is to provide appropriate contingencies without over controlling, and to encourage the development of intrinsic satisfaction" (Keller, 1987, p. 6)..

Immediate applicability
Future Usefulness
Need Matching
Experience
Modeling
Choice

Relevance

Learning Requirements
Self-Confidence
Expectations
Attributions
Difficulty

Attention

Student Motivation

Confidence

Inquiry
Humor
Variability
Participation
Concreteness
Incongruity & Conflict

Satisfaction

Scheduling
Positive Outcomes
Unexpected Rewards
Natural Consequences
Avoid Negative Influences