

EFFECTIVENESS OF ARCS MODEL OF MOTIVATIONAL DESIGN TO OVERCOME NON COMPLETION RATE OF STUDENTS IN DISTANCE EDUCATION

Assistant Professor Dr. Sangeeta MALIK
Symbiosis Centre for Distance Learning
Symbiosis Open Education Society
Pune, Maharashtra, INDIA

ABSTRACT

Students' course completion rate in distance education is getting attention of the researchers throughout the globe. Many factors responsible for high non completion rate of students in distance education are job responsibilities, domestic pressure and complexity of course content. Some researchers reported psychological reasons for dropout like, feeling of inadequacy, distress (Rickinson and Rutherford, 1996); lack of confidence (Cullen, 1994) examination anxiety (Fan and Chan, 1997). In literature lack of motivation is considered as the major responsible factor for this problem as students generally feel lonely due to lack of communication & competition in distance education.

In this article effectiveness of ARCS Model of Motivational Design to overcome the motivational problem of distance learning students is discussed. The study indicate that the systems which are developed on the basis of ARCS Model raise the attention of the students during instruction, develop a relevance to the students' requirements, create a positive expectation for success and help having a satisfaction by reinforcing success.

Key Words: ARCS Model, Motivational Design, Non completion rate, Distance Education

INTRODUCTION

Today challenge before most of the distance learning organisations is the high non completion rate of courses offered by distance organisations. Lack of motivation can be considered as the responsible factor for this problem. Visser, Plomp, Arimault and Kuiper (2002) also stated that a great number of distance learning courses suffer from extremely low student completion rates compared to their traditional classroom. Authors regard motivational problems as a possible cause for the suffering. They describe the motivational problems that a representative group of international distance education students had as well as they suggests "a specific, low cost motivational intervention" using the ARCS model that can enable instructors to effectively and efficiently support for students' motivation. Motivational Design Theory asserts that instructional material should be configured with the strategies which increase the attention, relevance, confidence and satisfaction of the students for an instructional design which ensures the continuity of learning motivation (Keller, 1983; Keller & Kopp, 1987). The ARCS model of motivational design arouse interest in the learners to complete this quality instructional material.

There are numerous instructional design models out of which The ARCS Model of Motivational Design is the most effective models to overcome the challenge of high non completion rate.

THE ARCS MODEL OF MOTIVATIONAL DESIGN

The ARCS Model of Motivational Design was created by John Keller while he was researching ways to supplement the learning process with motivation. The model is based on Tolman's and Lewin's expectancy-value theory, which presumes that people are motivated to learn if there is value in the knowledge presented and if there is an optimistic expectation for success. The model consists of four main areas: Attention, Relevance, Confidence, and Satisfaction. According to Keller, the goal of the many instructional design theories that have been developed is providing an effective and efficient instruction. However, in these theories the aspect of motivation has been generally ignored whereas motivation has to be essence of learning. Attention and relevance according to John Keller's ARCS motivational theory are essential to learning. The first 2 of 4 key components for motivating learners, attention and relevance can be considered the backbone of the ARCS theory, the latter components relying upon the former.

Attention

The attention mentioned in this theory refers to the interest displayed by learners in taking the concepts/ideas being taught. This component is split into three categories: perceptual arousal, using surprise or uncertain situations; inquiry arousal, offering challenging questions and/or problems to answer/solve; and variability, using a variety of resources and methods of teaching. Within each of these categories, John Keller has provided further sub-divisions of types of stimuli to grab attention.

- **Perceptual Arousal:** Use surprise or uncertain situations to create curiosity and wonderment. Ex- Plan activities which are based on the perception of the learners.
 - **Concreteness** – Use specific, relatable examples.
 - **Incongruity and Conflict** – Stimulate interest by providing the opposite point of view.
 - **Humor** – Use humor to lighten up the subject.
- **Inquiry Arousal:** Nurture thinking challenges and generate inquiry by offering difficult problems to solve. Ex- Presenting a scenario of a problem situation and asking the learners to brainstorm possible solutions based on what they have learned in the lesson.
 - **Participation** – Provide hands on experience through activities.
 - **Inquiry** – Ask questions that get learners to do critical thinking or brainstorming.
- **Variability** – Incorporate a variety of teaching methods (video, audio, reading, lecture). Incorporate a variety of teaching methods to sustain interest. Ex- The teacher divides the class into teams and assigns each team a set of practice problems during a virtual class or personal contact class.

Grabbing attention is the most important part of the model because it initiates the motivation for the learners. Once learners are interested in a topic, they are willing to invest their time, pay attention, and find out more.

Example-Bring pacing into the course and offer tutor's assistance. Use student's name and include personal comments in feedback messages. Provide an unexpected communication to students from time to time.

Relevance

Relevance, according to Keller, must be established by using language and examples that the learners are familiar with. The three major strategies John Keller presents are goal oriented, motive matching, and familiarity. Like the Attention category, John Keller divided the three major strategies into subcategories, which provide examples of how to make a lesson plan relevant to the learner.

- **Goal Orientation:** Describe how the knowledge will help the learner today as well as in the future. Ex- The instructor should explain the course objectives.
 - **Present Worth** – Describe how the knowledge will help the learners today.
 - **Future Usefulness** – Describe how the knowledge will help in the future (finding a job, getting a promotion).
- **Motive Matching:** Assess the learner's needs and reasons for learning and provide choices in their learning methods that are conducive to their motives. Ex- The instructor allows students to submit their final project in any format that they choose- written, audio, or graphically.
 - **Needs Matching** – Assess your learners and decide whether the learners are learning because of achievement, risk taking, power, or affiliation.
 - **Choice** – Give the learners a choice in what method works best for them when learning something new.
- **Familiarity:** Tie instruction into the learner's experience by providing examples of that relate to the learner's work. Ex- The instructor can design assignment where the learners can apply to the newly learned concepts.
 - **Modeling** – The concept of "be what you want them to do." Also, bring in role models (people who have used the knowledge that you are presenting to improve their lives).
 - **Experience** – Draws on learner's existing knowledge/skills and shows them how they can use their previous knowledge to learn more.

Learners will throw concepts to the wayside if their attention cannot be grabbed and sustained and if relevance is not conveyed. Example- Provide occasional extra material such as a publication through the use of e-library. Provide creative feedback and link feedback to learner's work and daily circumstances.

Confidence

The confidence aspect of the ARCS model focuses on establishing positive expectations for achieving success among learners. The confidence level of learners is often correlated with motivation and the amount of effort put forth in reaching a performance objective. For this reason, it's important that learning design provides learners with a method for estimating their probability of success.

This can be achieved in the form of a syllabus and grading policy, rubrics, or a time estimate to complete tasks. Additionally, confidence is built when positive reinforcement for personal achievements is given through timely, relevant feedback. Keller offers learning designers the following confidence building strategies:

- **Performance Requirements** - Learners should be provided with learning standards and evaluative criteria upfront to establish positive expectations for achieving success. If learners can independently and accurately estimate the amount of effort and time required to achieve success, they are more likely to put forth the required effort. Conversely, if learners are unaware or feel that the learning requirements are out of reach, motivation normally decreases. Ex- The instructor can present an assignment list and provides a rubric outlining the assessment criteria and points by which each deliverable will be graded.
- **Success Opportunities**-Being successful in one learning situation can help to build confidence in subsequent endeavors. Learners should be given the opportunity to achieve success through multiple, varied and challenging experiences that build upon one another. Present multiple, varied challenges for learners to experience success. Ex- The instructor allows students to submit an outline and first draft for approval before beginning to work on their final term paper.
- **Personal Control**- Confidence is increased if a learner attributes their success to personal ability or effort, rather than external factors such as lack of challenge or luck. Use techniques that allow learners to attribute success to personal ability or effort. Ex- The instructor provides feedback on the quality of the students work in the form of a letter grade, appreciation mail and comments.

Emphasize that they can do it if effort is put into the course. Reassure the learners by showing personal interest and concern. Show empathy. Provide encouragement and personal challenges at times.

4. Satisfaction: Finally, learners must obtain some type of satisfaction or reward from a learning experience. This satisfaction can be from a sense of achievement, praise from a higher-up, or mere entertainment. Feedback and reinforcement are important elements and when learners appreciate the results, they will be motivated to learn. Satisfaction is based upon motivation, which can be intrinsic or extrinsic. To keep learners satisfied, instruction should be designed to allow them to use their newly learned skills as soon as possible in a setting. Keller suggests three main strategies to promote satisfaction:

- **Intrinsic Reinforcement**-encourage and support intrinsic enjoyment of the learning experience. Example- The instructor invites former learners to provide testimonials on how learning these skills helped them with subsequent projects.
- **Extrinsic Rewards**-provide positive reinforcement and motivational feedback. Example- The instructor awards certificates to learners as they master the complete set of skills.
- **Equity**- maintain consistent standards and consequences for success. Example- After the term project has been completed, the instructor provides evaluative feedback using the criteria described in class.

Make turn-around time for assignments short. Ensure that educators are accessible. Refer to positive feelings a learner will have when the course is completed successfully.

Reward early completion through complimenting learners personally. Motivational strategies can improve the disposition of the learners to finish the course successfully

and the number of learners successfully finishing the courses can increase. The messages had a particularly strong impact on an improved level of self-confidence of the learners and the use of motivational strategies resulted in an enrichment of the student support system. Chyung (2001) presents a solution for the dropout problem in distance learning environment.

The author suggests online interventions strategies based on the ARCS model. She implements the ARCS model as a guideline to conduct learner analysis and modify instruction to improve motivational appeal to individual learners in a distance learning environment.

CONCLUSION

Distance organisations can make use of ARCS Model of motivational design for motivating the learners to complete the courses. It will help an organisation to overcome the dropout, passing percentage and low motivational problem of the distance learners. Distance education programs in which both the elements of teaching and motivation are used together can improve the success of distance education student.

BIODATA and CONTACT ADDRESS of the AUTHOR



Dr. Sangeeta MALIK has a rich experience of teaching, training, developing curriculum, developing new teaching techniques, developing various teaching aids and assessment methods. Presently she is working with Symbiosis Centre for Distance Learning as an Assistant Professor, faculty of Education, Humanities & Social Sciences. She is involved in various responsibilities here like preparation, implementation & evaluation of self instructional material, conducting virtual classes & online faculty interaction sessions, counseling learners, coordination & follow up with authors.

She has done her PhD, MSc. & BSc. from Indira Chakarvarti College, CCSHAU Hisar, Haryana. Her dissertation title at Ph.D & M.Sc. were "Impact of Intervention Package on Social Problem Solving Skills of 6-8 Years old Children" & "Impact of Intervention package on Mental Abilities of 5-6 Years old slow learners" respectively.

She has also done Post Graduate Diploma in Human Resource Management from SCDL, Pune in 2011. She cleared National Eligibility Test (NET) in 2001. Through all her degree programs she was a University scholarship holder. She got appreciation certificate from Board of School Education Haryana for effective teaching. Her research paper got the award of best paper at 8th international and 39th national conference of IAAP on positive health and well-being held in MD University Rohtak, Haryana. She has published 10 papers in various International and National Journals.

Assistant Prof. Dr. Sangeeta MALIK
Faculty of Education, Humanities & Social Sciences
Symbiosis Centre for Distance Learning
Symbiosis Bhavan, 1065 B, Gokhale Cross Road
Model Colony, Pune, Maharashtra, INDIA
Tel office: +020-66211111 ext: 1051
Email: sangeeta.malik@scdl.net

REFERENCES

- Aura et al. (2008). ARCS Model of Motivational Design EDTEC 544. www.irma-international
- Chyung, S. Y. (2001). Conducting learner analysis to adjust online instruction for your faceless learners. In Proceedings of the 17th Annual Conference on Distance Teaching & Learning (pp.85-90). Retrieved May 11, 2008 from http://www.uwex.edu/disted/conference/Resource_library/proceedings/01_6.pdf
- Cullen, M. (1994). *Weighing it up: A case study of discontinuing access students*. Occasional Papers Series: No. 2. Edinburgh University, Centre for Continuing Education.
- Dick, W., & Carey, L. (1990). *The systematic design of instruction (3rd ed.)*. Glenview, IL: Scott, Foresman, and Company.
- Fan, R. & Chan, M. (1997). A study on the dropout in mathematics foundation courses. Paper presented at the 11th Annual Conference of the Asian Association of Open Universities, Malaysia.
- Kaye Shelton & George Saltsman. *Applying the ADDIE Model to Online Instruction*. Dallas Baptist University, USA, Abilene Christian University, USA
- Keller, J.M. (1983). Motivational design of instruction. In C.M. Riegeluth (Ed.), *Instructional design theories and models* (pp. 383-434). Hillsdale, NJ: Lawrence Erlbaum.
- Keller, J. M., & Kopp, T. W. (1987). An application of the ARCS model of motivational design. In C.M. Reigeluth (Ed.), *Instructional theories in actions: Lessons illustrating selected theories and models* (pp. 289-320). Hillsdale, NJ: Lawrence Erlbaum.
- Krupar, Karen. (2002). Academy of Teaching Excellence, Metropolitan State College of Denver. Retrieved August 2002, <http://clem.mscedu/~schwarca/courseconstruct/addie-d.html>
- Olgren C.H.(1998). Improving Learning Outcomes: The effects of learning strategies & motivation. In C.C Gibson Ed. *Distance Learners in Higher Education* (pp.77-96). Madison, WI: Atwood
- Phythian, T. & Clements, M. (1980). Post-foundation tutorial planning. *Teaching at a Distance*, 18, 38-43.
- Rickinson, B. & Rutherford, D. (1996). Systematic monitoring of the adjustment to university of undergraduates: a strategy for reducing withdrawal rates. *British Journal of Guidance & Counselling*, 24(2), 213-232.
- Sali B. Jale (2008). Designing Motivational Learning Systems in Distance Education. *Turkish Online Journal of Distance Education-TOJDE*. Volume: 9 Number: 3 Article 13
- Sally M. Johnstone (2005). Advancing the Effective Use of Technology in Higher Education. *Encyclopedia of Distance Learning* (pp. 79-82).

Visser, L., Plomp, T., Arimault, R., & Kuiper, W. (2002). Motivating students at a distance: The case of an international audience. *Educational Technology Research & Development*, 50(2), 94-110.

Wiley, (2001). *University of Phoenix: Instructional design*. [UOP Custom Edition]. New York, NY: Wiley.

Willis, B. (2002). Instructional development for distance education. Retrieved August 25, 2002, from <http://www.uidaho.edu/evo/dist3.html>