Research Paper   **Education**

Motivational Design Model and Advantages of Instructional Designing

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ABSTRACT   *Instructional designing is a systematic process of designing online and campus curricula of courses. Today, there are many ID models but sometimes, instruction even when prepared according to instructional design principles, often does not stimulate student's motivation to learn. Thus, motivational design can be applied to students for their motivation to learn. The motivational design adds to the traditional view of instructional design as being the process and technique of producing efficient and effective instruction by bringing changes in motivation from extrinsic to intrinsic. Among the motivational design models, the ARCS model found more effective in understanding the major influences of the motivation to learn and for systematic ways of identifying and solving problems with learning motivation. The model consists of four main areas: Attention, Relevance, Confidence, and Satisfaction.*

KEYWORDS: ARCS; Curriculum; Instructional designing; Teaching

Instructional designing (ID) is the process of development and delivery of information and activities of analysis, strategies development, evaluation and revision that are created to facilitate attainment of intended, specific learning goals. Instructional design models develops out of the teaching profession and came in to existence during World War II when the nations had to be quickly trained the troops to run the equipments of war. After the success of military training, psychologists began to view training as a system, and developed various analysis, design, and evaluation procedures that helps in the development of curricula of various courses[1]. Today, the classes are not only traditional, instructor-led, face-to-face classes, but a plethora of online distance courses via different mode of media such as internet, edusat etc. are also available. In traditional college settings, the instructional method and activities are most often determined by the classroom instructor and can be modified based on student responses during the class. However, in online environments much of the instructional methods and activities are determined prior to the start of the course. Therefore, effective upfront design of distance education programs is essential to ensure student learning. Instruction is a systematic process in which every component (i.e., teacher, learners, materials, and learning environment) is crucial to successful learning. Designing online and campus programs requires a team approach comprised of faculty, instructional designers, administrators and other support personnel such as technology specialists. Therefore, ID teams must anticipate the needs of learners, choose an appropriate delivery mode (i.e. classroom, computers, television, video, etc.) and design instruction that "builds in" clarity, resources, activities, evaluation and feedback. Courses particularly online that are not designed with careful attention to media considerations and online pedagogy can be frustrating to students[2]. Today, there are many ID models but many are based on the ADDIE model with some common basic features such as study of needs assessment, goal and objective identification, audience and setting analysis, content and delivery development, evaluation and redesign. Sometimes, instruction, even when prepared according to sound instructional design principles, often does not stimulate student's motivation to learn. Thus, Instructional Designing must have to keep the motivational appeal of instructional materials. The present paper focuses on motivational design model and advantages of instructional designing.

The motivational design models can be understood easily by knowing about the motivation. Motivation can be defined as an internal drive that activates behavior and gives it direction. It can be intrinsic and extrinsic. Intrinsic motivation means the doing of an activity for inherent satisfactions rather than for some separable consequence. When intrinsically motivated, a person is moved to act for the fun rather than because of external rewards such as praise e.g. writing short stories because one may enjoys writing them, reading a book because reader is curious about the topic[3]. Extrinsic motivation, it reflects the desire to do something because of external rewards such as awards, money and praise. People who are extrinsically motivated may not enjoy certain activities. They may only wish to engage in certain activities because they wish to receive some external reward e.g. a person who dislikes sales but accepts a sales position because desires to earn an salary, rather than personal interest.

Motivational design refers to the process of arranging resources and procedures to bring about changes in motivation from extrinsic to intrinsic. Motivational design can be applied to students for their motivation to learn, to employees for motivation to work, the development of specific motivational characteristics in individuals, and to improving people's skills in self-motivation. The motivational design adds another dimension to the traditional view of instructional design as being the process and technique of producing efficient and effective instruction. Efficiency refers to economy in the use of instructional time, materials, and other resources. If an instructional event makes inefficient use of time and resources it can be boring or irritating to the audience. The instructional design remains ineffective until it is not appealing to people. Thus, for the success of an efficient instruction it should be motivational then only it will become effective.

Based on the survey of motivational design literature, it seems that there are different theories and models of it such as person-centered models, environmentally-centered models, interaction-centered models, and omnibus models. The ARCS Model of Motivational Design created by John Keller[4] was more effective in understanding the major influences of the motivation to learn and for systematic ways of identifying and solving problems with learning 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 (i.e. it fulfills personal needs) and if there is an optimistic expectation for success[5]. The model consists of four main areas: Attention, Relevance, Confidence, and Satisfaction. Attention and relevance according to 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.

1. Attention:
It refers to the interest displayed by learners in taking the concepts being taught. This component is split into three categories and further sub-divisions of types of stimuli to grab attention, which include:

Perceptual Arousal - Using surprise or uncertain situations. Concreteness – Use specific, relatable examples, story, or biography; Incongruity and Conflict – Stimulate interest by providing the opposite point of view; Humor – Break up monotony and maintain interest by lightening the subject.

Inquiry Arousal - Offering challenging questions and/or problems to answer/solve. Participation – Involve the learners with role playing, games, lab work, or other simulations that allows them to get them involved with the material or subject matter; Inquiry – Ask questions that get students to do critical thinking or brainstorming.

Variability – Incorporate a variety of resources and teaching methods (video, reading, lectures).

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.

2. Relevance:

According to Keller, relevance must be established by using language and examples that the learners are familiar with. Like the Attention component, Keller presents 3 major strategies and sub-categories, which provide examples of how to make a lesson plan relevant to the learner:

Goal Orientation - Explain how the lesson will benefit the learner. Present Worth – Describe how the knowledge will help the learners today; Future Usefulness – Describe how the knowledge will help in the future (getting into college, finding a job, getting a promotion).

Motive Matching - Identify the learner's needs and reasons for learning, and give options to accommodate them. Needs Matching – Assess the learners group 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 - Connect the learning to the learner's life, experiences, and values. Modeling – The concept of "be what you want them to do." Bring in role models in their studies; Experience – Enlighten the learner's existing knowledge/skills and shows them how they can use their previous knowledge to learn more.

Learners will remains perplexed if their attention cannot be grabbed and sustained and if relevance is not conveyed.

3. Confidence:

The confidence aspect focuses that learners must believe that they can succeed. This can be achieved by designing a syllabus, criteria of evaluation or a time estimate to complete tasks. Keller offers the following confidence building strategies: Learning requirements - Clearly outline what is expected of the students and the criteria for evaluation. 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. On the contrary, if learners are unaware or feel that the learning requirements are out of reach, motivation normally decreases. Success Opportunities – Being successful in one learning situation can help to build confidence in subsequent activities. Learners should be given the choices to achieve success through consequential experiences. Personal Control- Confidence is increased if a learner attributes their success to self efforts rather than external factors such as lack of challenge or luck.

4. Satisfaction:

Learner must receive some sort of reward or reinforcement at the end of the learning experience. Satisfaction is based upon motivation, when learners appreciate the results they will be motivated to learn further. Keller suggests three main strategies to promote satisfaction: Intrinsic Reinforcement – encourage and support the learner's intrinsic enjoyment of learning e.g. through alumni meets, who provides information that how particular learning helped them in getting success. Extrinsic Rewards – provide positive reinforcement and motivational

feedback. Equity – maintain consistent standards and consequences for success e.g. after the project has been completed, the teacher provides evaluative feedback using the criteria described in class.

There are many similarities between the Keller model and other models of instructional design like ADDIE, Dick & Carey, Ross & Kemp, and others. But the most significant difference, however, is that every step in Keller's model continues with the learner in mind, ultimately resulting in positive outcomes because the learner remains engaged throughout the process. Many of the other models abandon concerns about the learner after the initial analysis and assessments have taken place.

Advantages of instructional designing

There are a number of advantages of using a systematic instructional design process:

- Encourages advocacy of the learner in the designing of instruction. The designers stand in the place of learner and try to obtain information to make the content clearer to the learner.
- Supports effective, efficient, and appealing instruction facilitated by the process of instructional analysis for more success.
- Supports coordination among designers, developers, and those who will implement the instruction by the written documentation.
- Facilitates diffusion/dissemination as the instructional design being the physical product creates reusable information and replicates the designer's "work" and "knowledge"
- Supports development of alternative delivery systems
- ID ensures that what is taught is what is needed for learner to achieve stated goals for learning and that evaluation will be accurate and appropriate.
- Provides a systematic framework for dealing with learning problems and speeds up the course planning process.
- An ID Model can be used to evaluate existing instruction.

In conclusion, motivational design models can help both individuals and design teams works through the process of planning instruction. Consciously working back and forth through the steps of an ID model will add speed and clarity and insure that key instructional principles are addressed. Motivational design models can be used to assess existing educational material and help in everyday planning also. The ability of educational designers to create instructional systems is effective for students who want to learn, but what about the students who do not want to learn? This remains a challenge despite the progress that has occurred. Thus, there are still many avenues to explore, especially in regard to learner motivation in technology-based instructional environments.

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