

## INTEGRATE AN INSTRUCTIONAL DESIGN MODEL FOR LEARNING PROCESS IN VIDEO DEVELOPMENT

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### ABSTRACT

*Integrating an instructional design video for learning process can help the students to pay more attention and understanding while learning in the classroom. According to the purpose, it would be more effective if this instructional design is developed by Addie or Dick and Carey's model as the framework. The purpose of the objectives is to know the details of every part of the learning system process. It is important for features to improve the autism's skill for better understanding while learning process happened.*

**Keywords:** Video; Instructional Design Model; Autism

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### 1. INTRODUCTION

Lately, the demand for instructional design in the learning process is increasing. (Ocak, et al, 2015) stated that instructional design models, is instruction about the nature and scope of instructional designers, that help in the decision process is one of the systematic procedures. According to institution needs, it must be used a several of the model systems while developing the instructional design process. The selection and use of instructional design model are changing and is shaped according to the educational needs. (Yimlaz.,S, 2008), instructional design (ID) or instructional system design (ISD) models have different training environments design, format and visual presentations are prepared to complete the instructional design process. Besides that, teaching solution also should be designed according to the instructional design model by using correct ways. Indeed, (Rachmawaty, 2018) it has been stated that in 2005, founded that many teachers use educational Youtube video as the learning resources and it's become demanding on online media.

Generally, need to define the part of the process and how to apply it in teaching, also what kinds of an instructional the model would be in. Additionally, instructional design needs to be considered with the individual skills, criteria, specific objectives determined by written criteria and based on that criteria need to overcome with the evaluation that really performed. Necessary equipment is performed to help the details of determining the strategies and planning of instructional design in ways to perform and gains the target performance level that needs to be achieved. Once use this the process, make sure it would be systematic evaluation and continues it until reach a higher level attainment of the desired goals.

## 1.1 Autism Context

Autism or autism spectrum disorder is going to refer to a range of conditions characterized by challenges with social skills, repetitive behaviors, speech and nonverbal communication, as by unique strengths and differences. The sign of the ASD is determined in early childhood. Thought would be diagnosed with early intervention, individuals with ASD can lead productive, inclusive and fulfilling lives. The diagnosis will be detected in behavioral symptoms or features. The features include the absence of or delay in typical development milestone and the presence of unusual behaviors.

(Eric., Z, 2005) mentioned, excerpted from existing sources, most children with autism have significant learning problems, especially mentally. However, behind them, they have a very high level of intellectual intelligence quotient (IQ).

Persons with Asperger's syndrome, which is a condition resembling autism, have average or above average intelligence. Autism behavioral defined-condition based brain dysfunctions that affect the brain's ability to handle information. Autism is a neurodevelopment disorder. They have been difficult while processing information such as perceiving, processing and interpreting information and learn new things.

## 1.2 Identifying indicators Video-Based Learning

Video-based learning has become a prevalent practice in schools and in higher education in the learning process. It will focus on integrating information literacy content in academic disciplines on the development of children's focus on their minds. Furthermore, a little research is needed to examine how the specific instructional approaches might be effectively exploiting the potential of video in learning education process. In education, the video would make it possible to overcome practical real-world constraints and explore the far greater possibilities. Indeed, there's are student-centered learning either within the classroom or at home.

Video also can be integrated into online learning system (LMS, portal, E-class, MOOC, etc.) and also can be in offline learning that can be combined with other services. For instance, (Giannakos et.al, 2014) said learners can use it in the parallel video and an online chat room, forum or even video conferencing to communicate with their instructors. And, it would be such a great combination of the video with other learning services that have a great potential to provide the students with an integrated online and offline learning process. In facts, it's can be a consensus among teacher educators to use video as a powerful tool for education.

## 1.3 Video as an Education Tools

By using the video as an education tool, it would be as a feature in the particular user to become huge of preparation while teaching. Indeed, the video would be considered to be intermediary tools in education process learning between theoretical and practical. (L, M Gomez., 2008) stated the video can serve as a particularly useful as intermediary tools between theory and practice. On the other hands, shows the videos that demonstrate course topics and providing supplementary video learning materials for self-study. (H, Zhou, 2018), to achieve the goals, a lot of effort is needed while generating an innovative of the idea, advanced in teaching method and facilities and unnecessary infrastructure. In the learning process, many of the instructors or teachers are implementing video lectures in a variety of ways, such as broadcasting lectures in real time, augmented recording of in-class lectures with a face-to-face meeting for review purposes and delivery the lectures recordings to the class and then provide hands-on activities.

On the other hands, for this paper, it considers knowing the ability of teaching are reflected in the classroom and generate it into instructional design action.

(Davis, 2006) Purposely, that ability is considered to be evidence of one's skill in developing the productive thinking about instructions and determine how well is going while teaching the students. Additionally, (Hiebert et.al, 2007) an ability develops to reflect on instruction and simulate the instructional among teacher in educations. (K, Chorinanopoulos, 2018), to create an instructional video, need to identify the main of problems and distribution platform very well. It is to know either the platform are suitable to deliver to the participants.

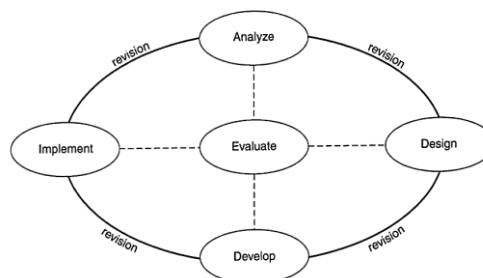
Due to this paper, by integrating the instructional design for the video, we need to specify a simple and effective way to incorporate the techniques into practice. So, we will review some important method developmental principles of instructional video creation. However, all the kinds of the method need to be extended in accommodation of the rapid changes in the technology and teaching practice.

## 2. METHODOLOGY OF INSTRUCTIONAL DESIGN PROCESS

Instructional design is a complex process that determines creative, active and iterative. It also is known as a technology for the development of learning experiences and environment which promote the acquisition of specific knowledge and skill by students. It is a system of procedure to develop education and training programs in an effective, consistent and reliable fashions. Moreover, instructional design theories are to offers explicit guidance on how to better help people learn and develop the effective learning.

Instructional design will make a systematic design procedure be effective, efficient and relevant that less rigorous approaches to plan the instruction. The systems approach implies an analysis of how its components interact with each other and require coordination of all activities. Although, a variety of instructional design process model has been described that all the description would include all the elements which are analysis, design, development, implementation, and evaluation (ADDIE) to ensure that can achieve the goals and strategies while conducting the instruction systems. While ADDIE has their conceptual components to describe the ID models and indicates the process of ID, there's also have another method to be used while developing the instructional design which is Dick and Carey's model. It's quietly famous if want to compare between ADDIE and Gagne's model.

### 2.1 Addie's Method



**Figure 2.1. Elements of the ADDIE Model**

Figure 2.1 has represented one of the connections to depict the relationship among all the elements. All the connection seems to be connected with each other in the cycleways. In the ADDIE model, it determines that there's have five elements which are Analysis, Design, Development, Implementation, and Evaluation. Analysis often used to conduct the needs of

special requirements which include conducting a student's needs assessment. Determine the student's problems or identifying a performance problem in a classroom setting or some other environment. And come out with a goal. Design includes writing objectives in measurable terms, classifying learning as to type, specifying learning activities and specifying media. Development includes by preparing the students and teacher with materials (print and non-print) as specified during design. Implementation includes delivering the instruction in the setting which for the designed and delivered to the students. The evaluation includes both formative and summarizes evaluation as well as revision. Formative is about collecting the data to identify the special needs of the instructions, the summation is an evaluation that involves collecting data to access the overall worth of the instruction. And revision is involved making needed changes based on the formative evaluation data. It is important to state that ADDIE activities are typically is not completed in a linear, step-by-step but for convenience, they may be presented that way by several of the authors. For example, during the life of the project, as data are being collected and the development has gained new information's, it is often necessary to move back and forth among the activities of analysis, design and formative evaluation and revision.

## 2.2 Dick and Carey's Method

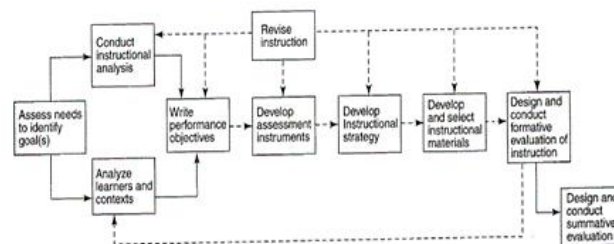


Figure 2.2 Elements of Dick and Carey's Model

The frequently use and a similar model with ADDIE is about the Dick and Carey model. Figure 2.2 is about (Lyn, T, 2004) Dick and Carey's models have served the purpose by describing how to conduct the various step that comprises the instructional process and finishes with summative evaluation. While proposing the instructional model into learning, the model requires to be understood by selecting and determine an appropriate instructional design either suitable or not. To make it achieve an objective, we need some guidelines to allow the learner to determine the extent to which the activity has been achieved. Learning for instructional design cannot be separated from the development model of instructional that is commonly used. According to Dick and Carey, the development of learning is a systematic way of designing, producing, evaluating and also use a complete learning system, either involves appropriate components and management. There is five elements core in all the ID models but in this model, we had to "slice and dice" the five core in many ways and use a wide variety of different terminology, all will contain the core elements in one form or another. Some models allow people to visualize the overall process and establish the guidelines for management. In addition, Gustafson and Branch have to suggest the model that be classified into three categories which are a classroom, likely to be delivered by the teacher. Products such as computer-based designed to distribute and large-scale in instructional are a system for entire distance learning to process. This model more focusing on real-world characteristics which are learners needed, assessment learners, prior knowledge level and integrates learning in performing context to the instructional design.

In entry behaviors and learners' characteristics phases, assess what skills the students have out to determine the needed for the lesson. For performance objectives, need to figure out the specific goals and objectives for the lesson. In criterion-referenced test item phases, need to create a test that consistent with the performance objectives that reflect what will teach the students. In instructional materials phases, make sure have the needed as a ready for the lesson. For formative evaluation is about to evaluate how the lesson went. And but not least is about summarize evaluation which is revised all the above techniques that have been mentioned before for learning systems.

### 3. RESULTS AND DISCUSSION

All the results would be evaluated into the usability evaluation of systems. Usability plays an imperative role in the success of video development. For this paper, it has been conducted on 10 respondents between the ages of 20 to 25 years. All the respondents are from multimedia backgrounds. In this session, they have been a set of questionnaires about usability issues on the instructional system. Based on the data collected, it can be seen that most respondents are very satisfied with the components discussed in the fourth and fifth positions, 45% and 29%. Only a few who are less satisfied are in the first and second position, 9% and 1%. The rest is only satisfied with the third stage of 16%.

**Table 1. Usability Evaluation Predicting Motivation to Learn**

Different segments of the questionnaire	1	2	3	4	5
Visibility & Content	-	-	2	3	5
Navigation & Structure	-	1	2	3	4
Consistency & Relevancy	-	-	2	2	6
Error Prevention & Recovery	-	1	4	2	3
Accessibility & Learnability	-	2	1	3	4
Flexibility & Efficiency	-	2	1	4	3
Help & Support	1	3	3	2	1
Effectiveness & Satisfaction	-	-	1	3	6
Different segments of questionnaire	1	2	3	4	5
User's response (%)	1	9	16	29	45

#### **4. CONCLUSIONS**

The proposed ADDIE model and the Dick and Carey model can provide online educators or instructors to an effective learning guidance when designing online course materials. There is needed a proper and appropriate implementation of every the model that can support online student's engagement, involvement, motivation and focus on learning. Regarding results and findings, student and educators prefer mostly systematic linear instructional design models. Flexible instructional design models are preferred for making possible changes that related to the planning process. Meanwhile, instructional design is important to identify the relationship between the philosophy of the learning and application processes. To make it effective learning for instructional design, research studies about theories, teacher thinking, decision-making, and planning process are needed to be conducted, and it proposed ADDIE and Dick and Carey model that will provide online educators or instructors for effective guidance while designing online materials.

#### **5. ACKNOWLEDGEMENT**

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