A NEW MODEL FOR THE WORLD OF INSTRUCTIONAL DESIGN: A NEW MODEL

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ABSTRACT

Like all models, the new model is also based on a theoretical foundation; constructivism, which emphasis is placed on the learner or the student rather than the teacher or the instructor. Students learn by fitting new information together with what they already know. People learn best when they actively construct their own understanding. The new constructivist based model is composed of four processes; input, process, output, and feedback. In the first step of this model, input activities are designed. At the beginning, the needs of the students are planned by using needs assessment. Needs assessment is an important process in constructivist approach. After the identification of the needs of the students, the units are started to be planned. The topics are stated from easier to the difficult one. After the aims are stated, the objectives are written, by considering the conditions. The teacher uses his / own teaching methodology by considering the characteristics of the students. The selection and preparation of the media is determined after stating the aims and objectives. In the second stage, the process begins with pre – assessment. In other words, the units, which are planned in the previous stage, are assessed before getting started of the instruction. From the results of the pre – assessment, the instructor gets an idea about the students' readiness, and the level of prerequisite skills. After the teacher reorganized the lesson by taking into consideration of the results, he / she implement his lesson by considering all of the previously mentioned aspects. During the implementation process, the weaknesses, and the strength points are considered. In the third stage, the units are taught, and the questions of the students are answered. In this model, the teacher is not only teaching, but facilitating the lesson for his / her student. In order to understand whether the students learn the units or not, during the semester, the teacher gives quizzes. With the formative evaluation, in this constructivist based approach, summative evaluation is used. After all the evaluation process is done, as the fourth stage, the teacher gets the feedback of the students' knowledge on the lessons. In constructivist approach experiencing is important, so the teacher should create authentic environment in order to let the students to experience it. If something is practiced, then it means ithas a meaning for the learners. If the students doesn't practice the knowledge, or if that knowledge doesn't have a meaning for the students, it means the instructor, or the teacher should go at the beginning of the model, and does the same thing from the beginning to the end.

I. INTRODUCTION

Instruction involves directing students to appropriate learning activities; guiding students to appropriate knowledge; helping students rehearse, encode, and process information; monitoring student performance; and providing feedback as to the appropriateness of the student's learning activities and practice performance. Instruction is a message describing how something is to be done. In other words, instruction is the set of events that enhances learning of individuals. Instruction is a part of educational system, and can be changed according to the needs of students, capabilities of the learners, age of the learners. Instruction may include events that are generated by a page of print, by picture, by a television program, or by a combination of physical objects, among other things. The word "Instruction" implies a didactic presentation, which may also called "educational intervention" meaning any activity by a teacher to encourage learning in students. Instruction is given in the schools, so schools' opportunities are important in educational system. Given instruction in schools are changed according to the needs of educational system, type of the school, equipment that the schools have, like computers, OHPs, data projectors. In other words, educational technology that the schools have, affect the way of giving instruction.

Instructional design is the technology of creating learning experiences and learning environments which promote these instructional activities. Like all science, the science of instruction is based on specific assumptions about the real world. Like other sciences, instruction is verified by discovery and instructional design is extended by invention. Instructional science, the foundation for the technology of instructional design, is the discovery of instructional strategies. Instructional science involves identifying the variables to consider (descriptive theory), identifying potential relationships between these variables (prescriptive theory), and then empirically testing these relationships in the laboratory and the field. The development of instructional design procedures and instructional design tools, the technology of instructional design, is invention. The technology of instructional design, like other technologies, is not a natural phenomenon. It is man made, designed to serve our needs. Design research involves inventing procedures and processes which incorporate what we learn from instructional science. These instructional design procedures are not governed by any natural laws. They are developed by

creative invention to make them work better. However, they must incorporate those scientific principles involved in instructional strategies, just as the invention of the airplane had to incorporate the discovered principles of lift, drag, and flight. It was not until the Wright brothers discovered the correct principles of aerodynamics (science), that they could invent an airplane that would sustain powered flight (technology); it is not until we discover the correct instructional strategies that we can invent instructional design procedures and tools that will promote student learning. Instructional design is a technology for the development of learning experiences and environments which promote the acquisition of specific knowledge and skill by students.

Instructional design is a technology which incorporates known and verified learning strategies into instructional experiences which make the acquisition of knowledge and skill more efficient, effective, and appealing.

The purpose of software for education or training, in other words, is to promote learning. With educational or training software the requirement is to change the capabilities of human learners, so analysis and design must involve their learning processes, which are not completely understood, and are different in detail from one person to another. There are known instructional strategies. The acquisition of different types of knowledge and skill require different conditions for learning (Gagne, 1985). If an instructional experience or environment does not include the instructional strategies required for the acquisition of the desired knowledge or skill, then effective, efficient, and appealing learning of the desired outcome will not occur.

Instructional design is a process, discipline, science, reality, system, and technology. Instructional Design is the systematic development of instructional specifications using learning and instructional theory to ensure the quality of instruction. It is the entire process of analysis of learning needs and goals and the development of a delivery system to meet those needs. It includes development of instructional materials and activities; and tryout and evaluation of all instruction and learner activities. Instructional Design, as a discipline, is that branch of knowledge concerned with research and theory about instructional strategies and the process for developing and implementing those strategies. Instructional design is the science of creating detailed specifications for the development, implementation, evaluation, and maintenance of situations that facilitate the learning of both large and small units of subject matter at all levels of complexity. Instructional design can start at any point in the design process. Often a glimmer of an idea is developed to give the core of an instruction situation. By the time the entire process is done the designer looks back and she or he checks to see that all parts of the "science" have been taken into account. Then the entire process is written up as if it occurred in a systematic fashion. Instructional design is a part of instructional system, and instructional technology. An instructional system is an arrangement of resources and procedures to promote learning. Instructional design is the systematic process of developing instructional systems and instructional development is the process of implementing the system or plan. Instructional technology is the systemic and systematic application of strategies and techniques derived from behavioral, cognitive, and constructivist theories to the solution of instructional problems.

II. THEORETICAL FOUNDATIONS OF INSTRUCTIONAL DESIGN
Basically, there are three theoretical foundations of instructional design. These foundations are behavioral, cognitive, and constructivist.

The best known behaviorists are B.F. Skinner, R.F. Mager, R. M. Gagne', and M.D. Merrill. The philosophy of behavioral approach holds that meaning exists in the world separate from personal experience. The goal of understanding is to come to know the entities, attributes, and relations that exist in this objective reality. The behavioral approach is concerned with immediate, recognizable changes in behavior. When we look at the outcomes of behavioral approach, the statement starts with (1) a description of the conditions under which the behavior is to take place; (2) describes the task(s) the learner has been asked to perform; and (3) a series of actions the learner is to be able to carry out to indicate understanding , (4) each of these actions is described using a verb that denotes some observable behavior, and (4) there is a criterion or measure of success that defines what an acceptable level of performance is or how it will be evaluated. In other words, the behaviorist view of instructional design is often summed up with the ADDIE model; analysis, design, development, implementation, and evaluation. The role of the instructor in behaviorist approach is to present effectively structured material, and assess student's proper and complete understanding of it. Instructor focuses on the presentation and interaction. Students' role is to absorb instructional presentations and material, and use them to create performances which indicate attainment of correct mental models. "By analyzing and breaking down content into specific behavioral objectives, devising the necessary steps to achieve the objectives, setting up procedures to try out and revise the steps, and by validating the program against attainment of the objectives, programmed instruction succeeded in creating a small but effective self-instructional systems – a technology of instruction" (Heinich 1970). According to Glaser, behavior desired must be analyzed and standards of performance specified (stimulus and desired response will determine what and how it is to be taught), then

characteristics of the students are identified prior to instruction, after that student must be guided from one state of development to another using predetermined procedures and materials, then a provision for assessing the competence of the learner in relation to the predetermined performance criteria (objectives) must be developed. In 1920, a behaviorist approach to educational psychology became increasingly predominant. Mager suggested that an objective should describe in measurable terms that an objective targets, the behavior they will have exhibited, the conditions or limitations under which they must carry out this behavior, and the criteria against which their behavior will be gauged.

Constructivists believe that learning is an active process of constructing, rather than acquiring, knowledge and that the goal of instruction is to support that construction rather than trying to transmit knowledge. Constructivism focuses on the construction of new knowledge that is unique to each person, and the importance of the environment in determining the meaning of reality. We cannot talk about what is learned separately from how it is learned, as if a variety of experiences all lead to the same understanding. Rather, what we understand is a function of the content, the context, the activity of the learner, and, perhaps most importantly, the goals of the learner (Savery J.R. & Duffy, T.M.). Constructivist learning occurs when learners actively create their own knowledge by trying to make sense out of the material that is presented to them. Active learning in which learner possesses and uses a variety of cognitive processes during the learning process is important for the constructivists. Constructivist learning depends on the learner's cognitive activity rather than the learner's behavioral activity. Instructional design should seek to encourage the learner to be cognitively active rather than focusing solely on promoting behavioral activity. Instruction should be designed to help the reader identify useful information, understand how the material fits together, and see how the material relates to prior knowledge.

The philosophy of cognitive approach holds that learners impose meaning on the world, and so "construct" their own understanding based on their unique experiences. Frames instructional goals in experiential terms are; specifying the kinds of learner problems addressed, the kinds of control learners' exercise over the learning environment, the activities in which they engage and the ways those activities could be shaped by leaders or instructors, and the ways in which learners reflect on the results of their activity together. The learning outcomes of cognitivist approach defines how learners should be able to think or solve problems differently when they are finished, and what settings, activities or interactions instructors predict will lead to these new abilities. It states that: (1) learners need some opportunity to define for themselves the goals and objectives for the course; (2) focus is more on process and interaction, less on what is specifically to be accomplished as a result of the lesson; and (3) outcomes are defined more in terms of a new common perspective rather than particular tasks or actions that individuals will be able to carry out. It assumes the learners are motivated by a common interest in some problem or issue. The role of the instructor is to construct a learning environment, and assist students as they explore it by designing experiences that encourage assimilation and accommodation. It suggests that lasting learning comes as a result of activities that are both meaningful to the learner and based in some social context (other learners, colleagues, instructors, clients, etc.). Instructor is facilitator and architect of learning. The role of the students' is to construct a learning environment, and assist students as they explore it by designing experiences that encourage assimilation and accommodation. The emphasis is on discussion and collaboration among cohort of students.

III. INSTRUCTIONAL DESIGN MODELS

Models for instructional design provide procedural frameworks for the systematic production of instruction. The models incorporate fundamental elements of the instructional design process including analysis of the intended audience or determining goals and objectives. Models may be used in different contexts. One model can be used for an entire course of instruction or elements from multiple models can be combined. There are total 13 instructional design models. Each of them focuses on different assumptions of instructional design. All of the models will be described in the following paragraphs.

The first model is designed by Dick and Carey (1990). In this paper, Dick and Carey Model is selected to be written more than other models, because is a macro-level model useful in structuring the overall design task. It follows a systems approach to designing instruction. Their model, which consists of nine stages, describes all the phases of an iterative process that starts by identifying instructional goals and ends with summative evaluation. The first stage focuses on instructional goals, which are the desirable state of affairs by instruction. The importance is given to needs analysis by Dick and Carey. The second stage focuses on instructional analysis. The purpose of instructional analysis is to determine the skills involved in reaching a goal. In the instructional analysis stage, the focus is given to Task Analysis (procedural analysis), which is about the product of which would be a list of steps and the skills used at each step in the procedure, Information-Processing Analysis, which is about the mental operations used by a person who has learned a complex skills, and Learning-Task Analysis,

which is about the objectives of instruction that involve intellectual skills. In the third stage, the focus is given to Entry Behaviors and Learner Characteristics. The purpose is to determine which of the required enabling skills the learners bring to the learning task. Intellectual skills, abilities such as verbal comprehension and spatial orientation, and traits of personality are the main concerns of the third stage. In the fourth stage, the focus is on performance objectives. The purpose is to translate the needs and goals into specific and detailed objectives. The functions are determining whether the instruction related to its goals, focusing the lesson planning upon appropriate conditions of learning, guiding the development of measures of learner performance, and assisting learners in their study efforts. In the fifth stage, the focus is on Criterion-Referenced Test Items. The purpose is to diagnose an individual possessions of the necessary prerequisites for learning new skills, to check the results of student learning during the process of a lesson, to provide document of students progress for parents or administrators, useful in evaluating the instructional system itself (Formative/ Summative evaluation), and early determination of performance measures before development of lesson plan and instructional materials. In the sixth stage, the focus is on Instructional Strategy. The purpose is to outline how instructional activities will relate to the accomplishment of the objectives. And the best lesson design is demonstrating knowledge about the learners, tasks reflected in the objectives, and effectiveness of teaching strategies. The seventh stage focuses on instructional materials. The purpose is to select printed or other media intended to convey events of instruction, and use of existing materials when it is possible. Stage eight focuses on formative evaluation. The purpose is to provide data for revising and improving instructional materials, and to revise the instruction so as to make it as effective as possible for larger number of students. The last stage focuses on the summative evaluation. The purpose is to study the effectiveness of system as a whole.

The second model is designed by Mager (1988). In Mager's model, there are four important concepts, which are analysis, development, implementation, and improvement. In the first stage, the learners' general characteristics, needs, and readiness are analyzed. Their ages, sex, background, level, and capabilities are taken into consideration. After the analyses stage, the behavioral objectives are designed. In the second stage, educational technologies, strategies are designed. The other stages are planed to improve the model, and implementations of the analysis. The third model is designed by Hannafin and Peck. The Hannafin /Peck Design Model is a three phase process. In the first phase, a needs assessment is performed. This phase is followed by a design phase. In the third phase, instruction is developed and implemented. In this model, all of the phases involve a process of evaluation and revision. This model is used to design the learning environments. The fourth model is Knirk and Gustafson Model. The Knirk and Gustafson Design Model is a three stage process which includes problem determination, design and development. The problem determination stage involves identifying the problem and setting instructional goals. The design stage includes developing objectives and specifying strategies. Finally, in the development stage, materials are developed. Other model is designed by Jerrold Kemp. The Jerrold Kemp Design Model takes a holistic approach to instructional design. Virtually all factors in the learning environment are taken into consideration including subject analysis, learner characteristics, learning objectives, teaching activities, resources (computers, books, etc.), support services and evaluation. The process is iterative and the design is subject to constant revision. This model is a more advanced one to design by and the most comprehensive for web-based course development. The other model is called Rapid Prototyping Design Model. Tripp and Bichelmeyer's Rapid Prototyping Design Model is a four level process that is intended to create instruction for lessons as opposed to entire curricula. The process stages include performing a needs analysis, constructing a prototype, utilizing the prototype to perform research and installing the final system. This model relies on expert instructional designers to utilize heuristics as well as their past experience and intuition to guide the design. This is a very time consuming and advanced model used mainly by those doing research. The Gerlach-Ely Design Model is a prescriptive model that is well suited to higher education. It is meant for novice instructional designers who have knowledge and expertise in a specific context. The model includes strategies for selecting and including media within instruction. It also handles the allocation of resources. This model has six stages. What is important in this model is to plan aims, behaviors, learning environments, and the evaluation process. At the end, in order to get correct the weak points, the importance is given to feedback. The next model is designed by Ramiszowski. This model, in general, consists of topics, aims, and behaviors, teaching, considering, evaluation, and the feedback. At the beginning of this model, the topics that are going to be presented and the learning environment is decided. The topics should match with the needs of the students. Then, the aims, and the objectives are written. The lessons are designed by taking into consideration of the capabilities and abilities of the students. Evaluation process is done by considering the previous aspects. If there are some weaknesses, they are corrected after evaluation process. Private National Media Model, which is another model of instructional design, is found is developed by National Media Institute in America. It contains nine events. At the beginning the problem is defined, and the resources are found. Student's readiness, needs, capabilities, and abilities are taken into consideration. If there is a mistake, it is immediately corrected. And the other steps are followed accordingly. The next model is Syracuse Model. It is designed to improve all educational activity. That's why this model is used in the universities. Aims and objectives are decided based on the needs of the

learners. All the activities are evaluated, and the weaknesses are immediately corrected. After the results are conducted, educational technology is planned. The important thing here is o pre – planned organization. The other model, which is improved by Diamond (1989), is called Diamond Model. This model is composed of six stages. In the first stage, the needs of the learners are determined in order to decide on the topics. Their needs are determined according to the readiness of the students. After that the aims and the objectives are determined. According to the planned objectives, educational materials are decided. Other model, which is designed by Gagne, Briggs, and Wager, is called Gagne, Briggs, and Wager. The first step is determining the needs of the students by using needs assessment. According to the needs, the aims and objectives are planned. The objectives are written according to cognitive, affective, and psychomotor domains. The needs and aims should me matched with each other. The capabilities of the students are important in order to decide on the materials that are going to be used in the teaching process. Students' prerequisite knowledge plays a key role. The weakness of the process is determined, and immediately corrected. The last model is called Isman Model. Isman Model, which is based systems approach, has four major aspects; input, process, output feedback, and learning. In the input process, the needs of the students are analyzed, and content is determined. In the next stage, the importance is given to pre – test, developmental activities, and teaching implementations. In the feedback stage, evaluation process is done. The last two stages are feedback, which consist of turning back to the right stage, and teaching, which consists of long life learning.

IV. A NEW MODEL FOR THE WORLD OF INSTRUCTIONAL DESIGN: A NEW CONSTRUCTIVIST BASED MODEL (See the appendix)
a. A New Model Based on Constructivism:
Like all models, A new constructivist based model is also based on a theoretical foundation; constructivism. In the *Constructivist* theory the emphasis is placed on the learner or the student rather than the teacher or the instructor. It is the learner who interacts with objects and events and thereby gains an understanding of the features held by such objects or events. The learner, therefore, constructs his/her own conceptualizations and solutions to problems. Learner autonomy and initiative is accepted and encouraged. Constructivists view learning as the result of mental construction. Students learn by fitting new information together with what they already know. People learn best when they actively construct their own understanding. In constructivist thinking learning is also affected by the context and the beliefs and attitudes of the learner. Learners are encouraged to invent their own solutions and to try out ideas and hypotheses. They are given the opportunity to build on prior knowledge. There are many different schools of thought within this theory, all of which fall within the same basic assumption about learning. The main two are social constructivism and cognitive constructivism. In other words in A new constructivist based model, the emphasis is given into learners. The design of this model is done according to the benefits of the students.

1. Step: Input
In the first step of this model, input activities are designed. At the beginning, the needs of the students are planned by using needs assessment. A Needs Assessment is a systematic exploration of the way things are and the way they should be. Kaufman (1993) described needs assessment as a process of identifying the problem and then selecting an appropriate intervention. Kaufman (1996) described a needs assessment as a process of identifying gaps in results, placing them in order of priority based on what it costs to meet the need versus what it costs to ignore it, and the selecting the most important for closure or reduction. In Anglin (1995), Allison Rossett describes needs assessment as 'a process of gathering information to assist professionals in making data-driven decision and responsive recommendations about how to solve the problem or introduce new technology. Needs are defined as a gap between what is expected and the existing conditions'. Needs assessment is an important process in constructivist approach. Before determining the units, aims, and objectives, needs of the learners should be identified. Needs assessment is done in order to identify the needs relevant to a particular job or task, e.g. problems affecting performance, identify critical needs, e.g. significant financial, safety, etc. impact, set priorities for selecting an intervention, and provide baseline data to assess effectiveness of instruction. After the identification of the needs of the students, the units are started to be planned. The units are organized according to the prerequisites of the students. First, the prerequisite of the learners are checked, and then the units are organized according to the level of the students. The units shouldn't be harder then their level, and the units shouldn't be easier then their level. The units are written according to the level of the topics. The topics are stated from easier to the difficult one. After the units are stated in an organized way, time is determined accordingly. Especially, time and unit preparation go together. It is hard to separate time form units. According to the time period, the topics are selected, and according to the topics, the time limit is stated. After the needs assessment, unit planning, and determination of time limits, the aims are written. In this model, as it is mentioned before, constructivist method is used, so the benefits of the students from the learning process are the main focus. After the aims are stated, the objectives are written, by considering the conditions. The teacher uses his / own teaching methodology by considering the characteristics of the students. The selection and preparation of the

media is determined after stating the aims and objectives. The materials can be soft copies, or hardcopies. The instructor, or the teacher may prepare his / her lesson by using computers, for example, or he / she may give handouts. According to the owner of that group, computer based materials should be used, because some students learn by visualizing, some students learn by memorizing. If the teacher, for example, uses power point for his / her lesson all kind of student may benefit from that presentation. Materials help the students to use them after the class, and whenever they need to recognize the lesson, they own the handouts, and check whatever they need.

2. Stage: Process

In the second stage, the process begins with pre – assessment. In other words, the units, which are planned in the previous stage, are assessed before getting started of the instruction. Pre-Assessments are diagnostic tools to assess if a candidate has the necessary prerequisites to pursue a certification program. From the results of the pre – assessment, the instructor gets an idea about the students' readiness, and the level of prerequisite skills. Also, the teacher may take a file for each student, and observe their success by using these files. After the results of the pre – assessment, the instructor may redesign his lesson by taking consideration of the results of pre – assessment, needs analysis, and time limitations. In other words, reorganization is a kind of backward step, which can be a cut point for the organizer in order to adjust his lesson. After the teacher reorganized the lesson, he / she implement his lesson by considering all of the previously mentioned aspects. During the implementation process, the weaknesses, and the strength points are considered.

3. Stage: Output

The units are taught, and the questions of the students are answered. In this model, the teacher is not only teaching, but facilitating the lesson for his / her student. Teacher – based system reflects the opposite view for that model. The students study cooperatively, and the teacher helps the students to capture the units. In order to understand whether the students learn the units or not, during the semester, the teacher gives quizzes. This kind of evaluation process is called formative evaluation. In one context, the aim is prospective, or *formative* -- to improve, to understand strengths in order to amplify them, or to isolate weaknesses to mend. Formative evaluation is a method of judging the worth of a program while the program activities are forming or happening. Formative evaluation focuses on the *process*. (Bhola 1990). Formative evaluation analyzes strengths and weaknesses towards improving. It helps the teacher to mention the weaknesses of the students, and write those weaknesses in students' portfolios. During the semester, let's say, the teacher calls each student, and teach whatever they failure one by one. At the end of the semester, on the other hand, the teacher gives a final examination, which is called summative, evaluation in order to see the final stand of the students. Summative evaluation is a method of judging the worth of a program at the end of the program activities. The focus is on the *outcome* (Bhola 1990). Formative evaluation is a kind of feedback for the teacher. Summative evaluation, on the other hand, is evidence, which shows whether the students learn or not. Assessment is not an end in itself but a vehicle for educational improvement. Its effective practice, then, begins with and enacts a vision of the kinds of learning we most value for students and strive to help them achieve.

4. Stage: Feedback

After all the evaluation process is done, the teacher gets the feedback of the students' knowledge on the lessons. Here, the constructivist approach shows itself. In other words, time comes to practice the lessons. In constructivist approach, teaching the lessons does not enough for the students. The students should practice what they learnt. "If and when students have been exposed to language whose meaning and construction they understand, it makes sense for them to practice it under controlled conditions" (Harmer). In other words, all human beings need to practice whatever they learnt immediately in order to acquire the knowledge. In constructivist approach experiencing is important, so the teacher should create authentic environment in order to let the students to experience it. Imagine that you are going to teach how to pump up a balloon. Which one is better? Only explaining how to pump up a balloon, or giving a balloon to each student and pump up together? The owner of this model, as an English teacher, strongly believes in the importance of practice in learning. Things take meaning when we put them in the long term memory. Long-term memory is memory that lasts from days to years. Short-term memory is a temporary potentiation of neural connection that can become long-term memory in the process of memory consolidation, which is a molecular process by which long-term conductivity of synapses is affected. As long-term memory is subject to fading in the natural forgetting process, several recalls, which involves a search of memory and then the comparison process once something is found, and retrievals, which involves a process of comparison of info with memory of memory may be needed for long-term memories to last for years. Individual retrievals can take place in increasing intervals in accordance with the principle of spaced repetition. As a last point, long – term learning happens when something is practiced. If something is practiced, then it means it has a meaning for the learners. If the students don't practice the

knowledge, or if that knowledge doesn't have a meaning for the students, it means the instructor, or the teacher should go at the beginning of the model, and does the same thing from the beginning to the end.

V. CONCLUSION

In conclusion, instructional design involves a teacher thinking about instruction in both structural and tactical ways. Overall structural thinking-for example, about the concept for the course-can help free a teacher from the Didactic Model into which we have been conditioned and the ineffective teaching that invariably accompanies it. Simple and complex tactical thinking can provide the means by which we can follow through on our structural decisions in an effective way. Our teaching will not be transformed simply because we philosophically believe in the value of critical thinking. We must find practical ways to bring it into instruction, both structurally and tactically. A new constructivist based model is designed on structured planned process by using constructivist approach in the learning process. Like all other models, this model may also be criticized, but as any of the models are perfect, this model may have weaknesses for some professions. It is suggested to use the bests of these models, according to the users, and combine these bests with the other models.

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