

*The Android Appreciations Training Package in Change Money System
According to IDFVE Model for the Technical Training*

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Abstract

The android appreciations training package had the efficiency at the 80/80 efficiency criteria, trainees were trained from the packages achieved significant training progress at the .05 level and there's opinions were at the highly agreement level regarding the appropriateness of the training packages. The sampling group was 42 undergraduate trainees of Rajamangala University of Technology Thunyaburi, The trainers were the android appreciations training package in change money system according to IDFVE model; an achievement test; and a questionnaire to assess trainees' opinions toward the developed training packages. Statistical procedures for data analysis included the E_1/E_2 , mean, standard deviation, and t-test.

Keywords: training packages, the android appreciations training package, change money system, IDFVE model

Introduction

This research was created the android appreciations training package in change money system according to IDFVE model, that this model had being an Internet-based Instructional Design Framework for Vocational Education. There can be training for self-regulated trainees, training at the vocational level will provide an alternative method of trainers and will influence decisions regarding what instructional strategies may be adopted (Dick, Carey & Carey, 2005, p.4). The researcher was adapted the IDFVE model that there synthesized from training processes; there is a synthesis of behaviorism, constructivism, and constructionism, a focus on mental processes, the training by doing approach, and social context by using the Delphi technique, the significance of these technique is to offer a new model and an Internet-based instructional design framework to trainees and trainers of vocational education. It is a circular instructional design model offering evaluation at every phase of the operation to allow not only for an effective new design but also for inherited projects to be produced in an efficient and timely manner. After finalizing the Delphi technique, an examination of the model by the opinions of trainees in the instructional design field will aid the IDFVE model for self-regulated, training for vocational education. It is believed that the model is likely to help produce more efficient and effective training environments or more efficiently designed and produced curricula for today's training environments. An improved Internet-based Instructional Design Framework for Vocational Education (IDFVE) model will also benefit anyone who uses the model for training design.

The results of research

In this research is presented in the three phases.

Phases 1 To created the android appreciations training package in change money system according to IDFVE model that there was created as follow in the orientation training theories focus on the three theories of mental processes, training by doing, social context and psychological theories of principles, teaching-training activities and strategies, teaching-training environments, stages of instructional sequence, and teaching-training models. The stages of the training process according to IDFVE model for the android appreciations training package in change money system; as shown in Figure 1.

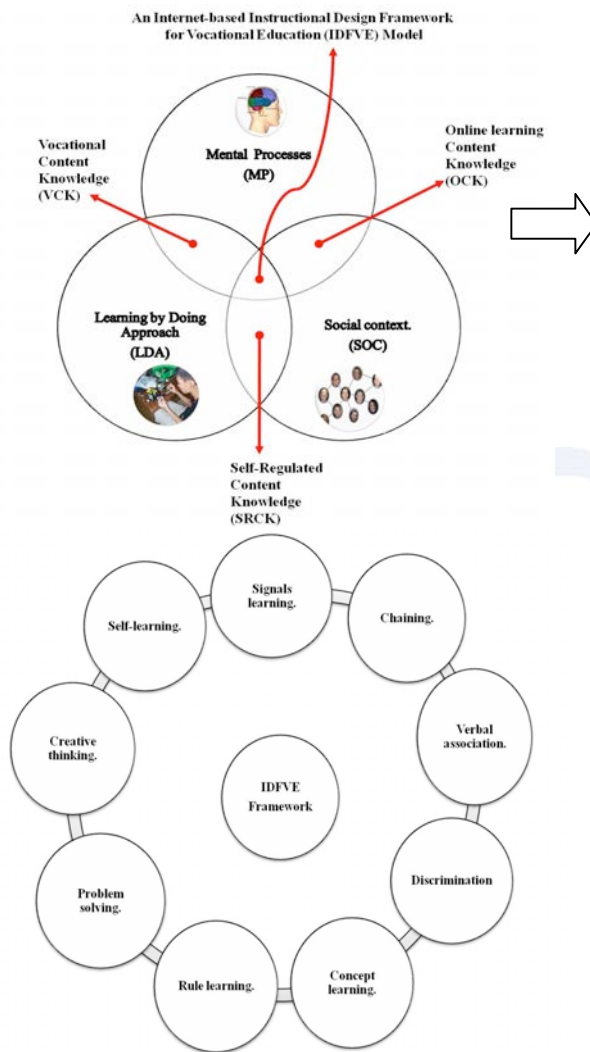


Figure 1 Creating the android appreciations training package.

The stages of the training process according to IDFVE model for the android appreciations training package in change money system

This framework was synthesized from three theories. There was focus on training process theories related to principles regarding mental processes, training by doing, and social context.

1. Mental processes. Both trainees and trainers can be participated in class, take note and study hard before exam; trainees would be created cognitive strategies including internal mental phenomena; situated cognition; elements of situated cognition; cognitive structure; cognitive organizers; cognitive activity. they should be doing as following in creating conditions for internal mental training process as in insight information, creating processing memory, perception knowledge and information, providing situated cognition (content, activities), performing processes access drill and practice, and supporting construction of knowledge.

2. Training by doing approach. Trainees and trainers would be created trainees who they have able to do working and thinking shush as activities to fulfill potential strategies in ways of doing and thinking for example, that humans have been acts of society and cognition and active methods in sharing knowledge and skills. Trainers should be doing as following in activities training by doing their own self-

understanding of the course with training by doing work, creating thinking together with ability to learn on their own, sharing their knowledge and skill through various types of method training environment, constructing knowledge, activity, and performances processes access (activities and games).

3. Social context. Trainers and trainees can be interacted and make social activity skills, construct knowledge and social strategies including knowledge-building together that they have able to be social and situational constructionism; situated training; social contexts; and social work and teaching or experiential training. Trainers should be doing as following in construction of knowledge by social strategies through social context, discussing constructions, sharing constructions, creating wit and knowledge by themselves, working socially, transferring organization of knowledge.

The stages of the training package process

The step by step how to make the trainers and trainees better in the android appreciations training package in change money system according to IDFVE model that there had to being the stages of the training process as following:

1. Discrimination; trainees learn through testing and feedback, share activities together, share understanding of knowledge with both trainers and trainees who they are share regulating activities to transfer knowledge, and present activities.
2. Concept training; trainers create tasks and conditional training as a method and stages of training process for trainees , and both trainees and trainers are share thoughts and build their own self- knowledge.
3. Rule training; trainees learn how to achieve the objectives of training and to meet conditional training, and trainees and trainers are build structures to construct their own self- constructionism.
4. Problem solving; trainers provide programmed instructions, tutorials, simulation, games and drill as well as practice and test for trainees , trainees construct knowledge - building via communities, and trainees can solve problems by simulation, games and drills as well as practice and test via social networks.
5. Creative thinking; trainees are encouraged to recognize and understand reflective thinking and thinking initiatives, both trainees and trainers are discuss and construct organization of knowledge, and they are joint shear construct information to manage knowledge.
6. Self-training; trainees can plan, set assumptions, investigate and solve problems by themselves. They should use simulation and gaming media by themselves, and both trainees and trainers are construct and collaborate on their tasks and combine experiences to develop themselves.

Phases 2

To the efficiency of training with the android appreciations training package in change money system according to IDFVE model. This result from the trainees'opinions in identifying and developing an instructional model for using training process theories for self-regulated online training in vocational education. It was created from psychology theories, namely mental processes, training by doing, and constructionism social context, and then trainees were trained from the packages achieved significant training progress at the .05 level. The sampling group was 42 undergraduate trainees of Rajamangala University of Technology Thunyaburi, The trainers were the android appreciations training package in change money system according to IDFVE model that how to create activities between trainers and trainees

for the training the android appreciations training package in change money system that the stages of the training process as following:

1. Signals training, trainers provide operating conditional training, giving information, objectives, expected outcomes, benefit from training and activities and create teaching criteria to suit the trainees with external conditions, trainers create stimuli to activate receptors, trainers create level of expectation for training, trainers build retrieval and activation of short-term memory, trainers select perception of content, trainers create semantic encoding for storage of long term memory,
2. Chaining, trainers provide events for training as well as a step by step process of training, trainers guide how trainees respond to questions to enhance encoding, trainers create verification, (reinforcement and assessment of correct performance), trainers create retrieval and reinforcement of content as final evaluation of training, and retrieval and generalization of learned skills for learner to build new situations.
3. Verbal association, trainers use process training and instruction model, trainees rethink to activate pre-knowledge, trainees find questions, trainees perform self-regulation training by doing their tasks.
4. Discrimination, trainees learn through testing and feedback, trainee share activities together, learner share understanding of knowledge with trainers, trainee share regulating activities to transfer knowledge, trainee present activities.
5. Concept training, trainers create tasks and conditional training as a method and stages of training process for trainees, trainees and trainers share thoughts and build their own self- knowledge.
6. Rule training, trainees learn how to achieve the objectives of training and to meet conditional training, trainees and trainers build structures to construct their own self-constructionism.
7. Problem solving, trainers provide programmed instructions, tutorials, simulation, games and drill as well as practice and test for trainees can be construct knowledge - building via communities, trainees can solve problems by simulation, games and drills as well as practice and test via social networks.
8. Creative thinking, trainees are encouraged to recognize and understand reflective thinking and thinking initiatives, both trainees and trainers discuss and construct organization of knowledge, trainees and trainers share and construct information to manage knowledge.
9. Self-training, trainees can plan, set assumptions, investigate and solve problems by themselves. They should use simulation and gaming media by themselves, trainees and trainers construct and collaborate on their tasks and combine experiences to develop themselves.

The Self-Regulated Content Knowledge (SRCK)

This research was to construct content knowledge that there were training and managing environments as following:

1. Content knowledge for creating mental processes; trainee use education media such as concept map, spider diagram, fishbone, structured overview, and T-chart to create cognitive mental processes by themselves.
2. Content knowledge for training by doing approach; trainees use action activity environments such as interactions within a training by doing process; trainees share their knowledge and skills through various types of social activities/opportunities to develop meta- cognitive knowledge about persons, tasks and strategies; trainees evaluate their training by considering their own part of the total experience; ensure that all activity environments help them through a training by doing approach.

3. Content knowledge for constructing social context; trainee interact with social constructionists such as experiential training, perceive experience by their own understanding, construct their own thinking as training-by-making, develop social training, interaction and cognitive processes. All interaction with social constructionists is to construct a social context for themselves.

The training environments, how to creating training in the android appreciations training package in change money system according to IDFVE model.

1. Constructing Mental Processes (MP) activities, how to manage training environments. Using education media; concept map, spider diagram, fishbone, structured, and T-chart. Training model; signals training, chaining, verbal association, discrimination training, concept training, rule training, problem solving, creative thinking, reflective thinking, thinking initiatives.

2. Constructing Training by Doing Approach (LDA) activities, how to manage training environments. Using action, activities and environments, Interactions within a training by doing process, sharing their knowledge and skills through various types of social activities, activity/opportunities to develop meta-cognitive knowledge about persons, tasks, and strategies to evaluate their training by their own part of the total experience. Training model; training by doing, co-operative training, project-based training, problem-based training, group Investigation, inquiry method, new knowledge, planning training by themselves, presentation.

3. Constructing Social Context (SC) activities, how to manage training environments. Using interaction with social constructionists. Training model; self-training (simulation and games), situation training, brainstorm for projects, training assessment, modifying actions, experiential training, perceptions of experience by their own understanding, construction by themselves or thinking of it as training- by-making, actions for social training, interaction and cognitive processes.

Self-Regulated Content Knowledge (SRCK)

How to training environments by self-regulated content knowledge:

1. Content knowledge for creating mental processes. Trainees use action activity environments such as interactions within a training by doing process; trainees share their knowledge and skills through various types of social activities/opportunities to develop meta- cognitive knowledge about persons, tasks and strategies; trainees evaluate their training by considering their own part of the total experience; ensure that all activity environments help them through a training by doing approach.

2. Content knowledge for constructing social context. Trainees interact with social constructionists such as experiential training, perceive experience by their own understanding, construct their own thinking as training-by-making, and develop social training, interaction and cognitive processes. All interaction with social constructionists is to construct a social context for themselves.

Vocational Education Content Knowledge (VECK)

1. Teaching for vocational education content knowledge; creating conditions for internal mental training process such as insight information, creating processing memory, perception knowledge and information, providing situated cognition (content, activities), performing access processes (drill and practice), supporting construction of knowledge.

2. Activities training for vocational education content knowledge; activities training through their own self-understanding of the course with training by doing work,

creating thinking together with ability to learn on their own, Sharing their knowledge and skills through various types of method training environment, constructing knowledge, activity, access processes performance (activities and games),

3. Training for vocational education content knowledge. Using education media, action activities environments, and interaction with social constructionists in constructing content knowledge for signals training. Information for chaining that trainee can learn on their own (objective of training, activities, event of training, step-by-step of process training, instructional media), create activities verbal association (using process training, and instructional models), Setting events for training regarding discrimination training (testing, feedback training), construct content knowledge for trainees to create concept training (create tasks, conditional training), method training, stages of teaching of training process, select media, environment management), construct content knowledge in rule training so learner can be self-regulated (how to able to achieve objectives of training and conditional training), construct social contexts for the learner to solve problems by themselves, (instruction models such as programmed, tutorials, simulation games drill and practices, test), construct social context for learner to be able to do creative thinking, recognition, understanding of sustainability according to reflective thinking, and thinking initiatives, construct social context so learner can do self-training, (trainee can be training by doing and planning, setting assumptions, doing investigations, and solving problems independently), self-regulated model for vocational education content knowledge, brainstorms for projects, planning their own training, training by doing, presentations, training assessments, modifying actions, construction of knowledge by social strategies through social context, discussing constructions, sharing constructions, creating wit and knowledge by themselves, working socially, promote reflection and articulation for training and teaching.

In this article, the researchers have offered a framework and design process for the Internet-based environment. The implementation of the IDFVE model involved several steps including a consideration of various aspects of information, conceptual development, psychology theories and evaluation of the overall quality of the system environment. In particular, the research aims to improve the design process and usability of the Internet-based environment. The study also confirms that for Internet-based Instructional Design Framework for Vocational Education (IDFVE model) to be successful, various aspects of the online environment should be considered such as the application of domain knowledge, conceptual theory, psychology theories, and evaluation of the overall quality of the design process.

Phases 3

To find trainee's opinions were at the highly agreement level regarding the appropriateness of the training packages. The sampling group was 42 undergraduate trainees of most trainees strongly agreed with the effect of mental processes on teaching-learning models as follows: signals training; chaining; verbal association; discrimination training; concept training; rule training; problem solving; creative thinking, reflective thinking, and thinking initiatives. Most trainees strongly agreed with the learning by doing approach on teaching-learning models in terms of self-learning (simulation and games) and situational training. Additionally, most trainees were neutral on the learning by doing approach in terms of co-operative training; project-based training; problem-based training; group investigation; and inquiry method. For social context, most trainees strongly agreed on co-operative training;

project-based training; problem-based training; group investigation; and inquiry method. Also, the researcher selected the items from the results of questionnaire. This means that all four terms on principles, teaching-learning activities/strategies, teaching-learning environments, and teaching-learning models of mental processes, learning by doing approach and social context were pooled together.

Discussion of Results

The use of an Internet-based Instructional Design Framework for Vocational Education (IDFVE) model can solve problems such as the lack of environment management in electronic media and in technology-enhanced and student-centred training environments where there has been no integration of psychology theories or trainees' understanding of how the abstract becomes concrete. It can also facilitate the training and understanding of abstract concepts due to the fact that students can notice graphically displayed changes of concrete experience. Also, the lack of attention to effective e-training environments allows students to work socially with each other.

The research found the opinions of trainees concerning instructional design and evaluation effective in terms of trainees' activities and critical thinking style; application of previous knowledge; new situations; solving problems; researching decisions; and making critical evaluations; clear thinking; presenting in class and trainers' promotion of class participant/controlling activities, effortful endeavor, designing tasks; trainers' organization of his/her thoughts; finding new ideas; making simple charts, diagrams or tables for organizing course materials; making notes and an outline of concepts and social context (construct knowledge and situation model in cloud: brainstorm for projects; planning their own training; training by doing; new knowledge; presentations; training assessments; modifying actions); developing trainee' interaction style: the relationship between people and environment; participation in communities of practice and utilization of resources; and in encouraging trainee to collaborate and learn together. Trainers create a situational style by constructing new knowledge and understanding concepts, encouraging creativity and developing problem-solving strategies for trainee. "Full participation in communities of practice and utilization of resources that include: construct new knowledge; understand concepts" (Merriam and Caffarella, 1991, p. 138)

An Internet-based Instructional Design Framework for Vocational Education (IDFVE) model was developed as an efficient, effective, flexible and easy to use system. It is, however, not for only vocational education. Most trainees' opinion concerning the IDFVE model is that it is efficient, effective, flexible and easy to use for developed electronics media (such as WBI (web-based instruction), CAI (computer assisted instruction), eBook, and eTraining)) in vocational education fields (such as electrical, electronics and mechanics), in situational training; in group investigations, and for inquiry methods.

Contributions

The significance of the Delphi technique is to offer a new model and an Internet-based instructional design framework to learner and teacher of vocational education. It is a circular instructional design model offering evaluation at every phase of the operation to allow not only for an effective new design but also for inherited projects to be produced in an efficient and timely manner. An Internet-based Instructional Design Framework for Vocational Education (IDFVE) model for self-regulated,

online training at the vocational level will provide an alternative method of instruction and will influence decisions regarding what instructional strategies may be adopted (Dick, Carey & Carey, 2005, p.4). In order to find a model, the researchers developed the IDFVE model synthesized from training processes; there is a synthesis of behaviorism, constructivism, and constructionism, a focus on mental processes, the training by doing approach, and social context by using the Delphi technique. After finalizing the Delphi technique, an examination of the model by the opinions of trainees in the instructional design field will aid the IDFVE model for self-regulated, online training for vocational education. It is believed that the model is likely to help produce more efficient and effective training environments or more efficiently designed and produced curricula for today's training environments. An improved Internet-based Instructional Design Framework for Vocational Education (IDFVE) model will also benefit anyone who uses the model for instructional design.

Thus, the significance of the study may specifically be summarized as follows:

1. Trainers can apply the results of this study to develop a teaching style for the management of trainees' activity so they may learn by themselves.
2. Trainees can apply the results of this study to a training style that allows them to make sense of the new information that they are receiving by themselves.
3. Both, trainers and trainees can apply the results of this study to the training style of active participants who construct their own self understandings of the world around them by using past experience and knowledge.
4. Also, this may improve e-training courses to help trainees achieve their training objectives effectively and efficiently, as well as help trainees to understand in a faster and more stable way (Sangsawang, Jitgarun, & Kaattikomol, 2006, p. 1). The interactive content in the self-regulated instruction of an e-training course can keep the trainee's attention (Muzio & Mundell, 2002, p. 21).
5. There are implications for future research into the IDFVE model presented here. The researcher has offered a framework and design process for the Internet-based environment. The implementation of the IDFVE model involved several steps including a consideration of various aspects of information, conceptual development, psychology theories and evaluation of the overall quality of the system environment. In particular, the research aims to improve the design process and usability of the Internet-based environment. The study also confirms that for Internet-based Instructional Design Framework for Vocational Education (IDFVE model) to be successful, various aspects of the online environment should be considered such as the application of domain knowledge, conceptual theory, psychology theories, and evaluation of the overall quality of the design process. Also, the researcher recommends this model as being applicable to support instructional design for self-regulated, training in other content areas or at other educational levels.

Also, the researcher recommends this model as being applicable to support instructional design for self-regulated, online training in other content areas or at other educational levels.

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