Environmental Conservation Education: Theory, Model, and Practice

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ABSTRACT

Environmental education should be accessible to all age levels and all development sectors to create an environmentally friendly society. Until today, such education has only been in the ecological scope and excluding things that are more contextual to everyday life. For this reason, it is deemed necessary to seek various learning strategies and experiences to achieve the main learning objectives: environmental preservation and more effective life. This article contains various theories, models, and pieces of training that can be used as a reference for implementing environmental conservation education. It is hoped that the various models contained in this article can contribute to the solving of the environmental problems over time.

Keyword

Environment, Model, Learning, Conservation

Introduction

The quality of the environment on this earth continues to deteriorate to this day, especially with the increasing population, leading human beings to face major problems today and in the future. They always use natural resources and the environment every day more intensively and expansively while the carrying capacity of this earth to provide a source of life for humans becomes dramatically limited. Besides, the current crisis of spiritualism makes the environment increasingly neglected; development, which is not balanced with the preservation of the surrounding environment, threatens the lives of future generations.

The development policies implemented so far have actually decreased the quality of life of the people. Based on this consideration, the United Nations in its report "our common future" declared the concept of sustainable development with a moral dimension (Ponniah et al., 2008).

Indonesia then made rules in the 1945 Constitution in article 28H paragraph (1), Law of the Republic of Indonesia Number 20 of 2003 concerning the National Education System, Article 3, Law 32 of 2009 concerning Environmental Protection and Management

(PPLH) , in article 63 paragraph (1) letter w paragraph (2) letter q, paragraph (3) letter n and in article 65 paragraph (2). The 3 (three) laws are then accommodated and manifested in the form of a joint agreement between the State Minister for the Environment and the Minister of National Education, Number: 03/MenLH/02/2010 and 01/II/KB/2010 concerning Environmental Education(KLH, 2008). This agreement aims to (a) cultivate and develop knowledge, values, attitudes, behavior, and insights, as well as environmental awareness of students and society, (b) improve the quality of human resources as executors of sustainable development and preservation of environmental functions.

Environmental problems that we face are quite complex, relating to the quantity and quality of our environment, including the population composition and distribution, which certainly have an impact on the increasing need for natural resources. Population problems related to the environment that we face today include slum, crowded, and uninhabitable residential neighborhoods, as found in many places in big cities. Environmental areas like these have the potential to cause various diseases, especially those caused by environmental conditions and household wastes. Besides, other social problems

will also occur easily and sometimes very difficult to handle. It can be seen from the figures shown in the human development index that we have achieved that we are still far behind compared to neighboring countries which have ranked under one hundred out of 167 (Syukri, 2016). All of these conditions increase the possibility of environmental degradation, according to Syukri (2016).

It was found in the field that education actors' understanding of environmental education is still very limited, as shown by the varied perceptions of environmental education actors. Lack of commitment from education actors also affects the success of environmental education development. In the formal education pathway, for example, there are still school policies that consider environmental education not so important, thus limiting the space and creativity of educators to teach environmental education monolithically or comprehensively to their students.

The impacts and results of environmental education that have been implemented in formal educational institutions, both in the community and in the environment, have not been widely seen. On the other hand, we often encounter various environmental problems rooted in human behavior in our daily lives. The fact that the results of environmental education are not maximal is acknowledged by Sonny (2010), which stated that the inapplicable materials and methods of implementing environmental education, coupled with the lack of human obedience in enforcing regulations, have increased environmental problems faced in the regions.

An assessment of the implementation of environmental education so far needs to be done, in the sense that it is necessary to look for learning strategies and providing learning experiences to students to find alternative forms of learning models that are considered more effective than before. The imperative to revisit the implementation of environmental education was also emphasized by Soemarwoto (2001), which stated that environmental education from elementary school to college needs to be reviewed so that learning materials can be internalized in society to behave friendly towards the environment. The weakness that has been found so far is that lessons about the environment are too

focused on ecology and do not include contextual things in everyday life.

Sanjaya (2011) argued the necessity of study learning strategies to prepare a formal and non-formal learning model, especially teaching materials based on environmental ethics and self-control subject matter, which are marked by the opening of the chances to the implementation of decentralized education. However, the development of a model of environmental education teaching materials should be following the needs of the region concerned while still paying attention that the material being developed must be adapted to the development of students, their abilities, interests, and needs.

The problem that needs to be understood is related to the development of environmental education materials that refer to the principle of "think globally, act locally". In Murni (2010), it is not limited to formal education. Therefore, educators' understanding of this principle is necessary because environmental problems are not only local problems that only touch certain communities, but have become globalized. Environmental education must be able to reach all levels, all ages, and all sectors of development. It becomes an inevitable need when we want to create an environment-friendly society, as aspired in this study.

Three dominant human traits need to be studied in-depth: 1) humans as environmental conquerors, 2) humans as environmental fighters, and 3) humans as environmental sustainability designers. The occurrence of environmental damages is influenced by the perspective and behavior of humans who position themselves superior over the natural environment; they explore and exploit this world to meet their needs, without considering the equilibrium relationship. Such a perspective is what happens a lot. Changing it is not easy and requires a process such as the environmental education approach (PLH)(Desi et al., 2017; Desi & Wekke, 2020).

Education in Indonesia is organized through two channels, namely school or formal and outside of school or non-formal. The latter is education held outside the school education system, both institutionalized and not and does not have to be tiered and sustainable. The learning society is a miniature intellectual society that has a variety of thoughts and ideas that are full of

creativity to realize the Tri Darma of Higher Education, namely; Education and Teaching, Research, and Community Service(Alfita et al., 2019).

Also, the implementation of educational activities as an effort to empower the community needs to pay attention to the potential wisdom of local values contained in the community. Potential local cultural values serve as guidelines, rules, and norms that are part of people's lives. P.J. Bouman in Maddatuang et al. (2020) provided reasons why people are not aware of their lives: it is a result of the concepts of self-understanding and understanding the environment always determined by rules that are not actually understood.

The assessment of the learning model for environmental education itself is important, that the teaching materials have a great influence on the atmosphere of the learning or training process. A need-based environmental education training model, which, of course, effective in the community, is needed.

Results and Discussion

1. Environmental education

Environmental education, according to the UNESCO convention in Tbilisi 1997, is a process that aims to create a world community that cares about the environment and its related problems and has the knowledge, motivation, commitment, and skills to work, both individually and collectively in looking for alternatives or providing solutions to existing environmental problems and to avoid the emergence of new ones.

Environmental education must also be followed by the practice of decision making and formulating their own characteristics of behavior based on issues of environmental quality (Joseph, 2005). Thus, the learning process of environmental education that is carried out, in addition to broadening cognitive insights, should also touch the realm of scientific beliefs, attitudes, values, and behavior. The essence of education is the process of growing and developing the existence of students who are civilized in a life order with local, national, and global dimensions, and, most importantly, not only limited to merely the transmission of knowledge (Murni, 2010).

The teaching material itself, in the context of environmental education, is a set of materials arranged systematically to display a complete figure of the competencies that will be mastered by students in learning activities. Concerning environmental education teaching materials, Soerjani (1997) in her book "Environmental Education" identified four main elements that must be present in environmental education, namely: (1) knowledge of environmental issues; (2) knowledge of specific action strategies to be applied to an environment; (3) the ability to act on environmental issues, and (4) the quality of responding and a good personality attitude.

Learning theories that explain and support the possible appropriateness of teaching materials that are prepared based on local conditions and phenomena include cognitive development theory. In this case, cognitive development is an attempt to adapt to the environment through a process of assimilation and accommodation. The former is a passive act of building primary knowledge that involves interpreting events about existing cognitive structures, while the latter is a new knowledge that refers to changes in cognitive structures caused by the environment. Thus, the realities and concrete phenomena that the students encounter will become a reference for them in studying environmental education material.

2. History of Environmental Education

The State Ministry for the Environment, KNLH(2008) argued that environmental education (PLH) had implicitly started since the use of the 1975 curriculum in school programs by integrating it into relevant subjects, starting from elementary school to senior high school levels, based on the Decree of the Minister of Education and Culture No. 008/U/1975. The development of the implementation of environmental education (PLH) in Indonesia was carried out by Institut Keguruan Ilmu Pendidikan Jakarta (the Jakarta Teacher Training Institute) (IKIP) in 1975. In 1977/1978, pilot outlines of environmental teaching programs were piloted in 15 elementary schools in Jakarta. In 1979, under the coordination of the office of the minister of state for development and environmental supervision (Meneg PPLH), an environmental study center (PSL) was established in various public and private universities, where environmental impact analysis (AMDAL) education began to be developed. In 2010, the number of PSLs who

were members of the environmental studies center coordination agency (BKPSL) had grown to 101 PSLs. From 1989/1990 to 2007, the Director-General of Primary and Secondary Education, Ministry of National Education, through a population and environmental education project developed an environmentally cultured school (SBL) program starting in 2003 in 120 schools. By the end of 2007, the PKLH project had succeeded in developing the SBL program in 470 schools, 4 Quality Assurance Institutions (LPMP), and the Teacher Training Development Center (PPPG).

Environmental education development initiatives were also carried out by NGOs. In 1996/1997 an environmental education network was formed, consisting of NGOs interested in and concerned about environmental education. Until 2010, there were 150 JPL members (individuals and institutions) engaged in the development and implementation of Environmental Education. Meanwhile, in 1998 and 2000, the Swiss Contact Project, which was centered at VEDC (Vocational Education Development Center), Malang, developed Environmental Education in Vocational High Schools through 6 PPPGs in vocational areas by developing PLH teaching materials and various environmental training for teachers of elementary schools, junior and senior high schools, and vocational high schools (KLH, 2008).

3. Learning Model

The purpose of a learning model is to transform key concepts and processes into a particular approach, which is a short method of communicating what is believed to be a critical success factor for a learning activity. The model is sometimes a step that must be followed procedurally. Learning models generally depart from learning theories. This means that there is a learning model based on behavioristic, cognitive, and constructivist learning theories. The nature of learning theory is descriptive, while learning theory is prescriptive. The study of several learning models based on the three learning theories shows that these models are procedural models, including the model referred to in this study.

Learning theory is a theory that offers explicit guidance on how to help people learn and develop better. Types of learning and development include cognitive, emotional, social, physical, and spiritual aspects (Reigeluth, 1999). This means that learning theory must show several characteristics (1) designed oriented, which focuses on efforts to achieve learning goals, (2) identifying learning methods (ways to support and facilitate learning) and situations in which the method is used or not, and (3) learning methods can be detailed as a lesson implementation plan.

The learning models that can be applied to environmental education are as follows:

a. Plomp's Model

Plomp provides a development model in designing education which is divided into 5 phases, namely Phase 1: Preliminary Investigation, Phase 2: Design, Phase 3: Realization/Construction, Phase 4: Test, Evaluation, and Revision, and Phase 5: Implementation

b. Dick–Carey'sModel

The Dick – Carey's model is an instructional design model developed by Walter Dick, Lou Carey, and James O Carey. This model is one of the procedural models, which suggests that the application of instructional design principles is adjusted according to the steps that must be taken sequentially. This model is contained in the book the Systematic Design of Instruction, 6th edition of 2005. In the instructional design according to the Dick & Carey's model approach, several components will be passed in the development and planning process, as shown below:
1. Instructional Goal(s) Identification.
2. Conducting Instructional Analysis.
3. Analyzingthe Learners and Contexts.
4. Formulating Performance Objectives.
5. Developing Benchmark Test.
6. Developing Instructional Strategy.
7. Developing and Selecting Instructional Materials.
8. Designing and Conducting Formative Evaluation.
9. Instructional Revision.
10. Designingand Conducting Summative Evaluation.

c. Morrison Ross and Kemp's Model

Morrison and Kemp's model is a learning device development plan which is a continuous circle. The design of the development of this model of learning equipment consists of nine components of stages and does not have a specific starting point.

In this Kemp model, a set developer can start the development process of any component in the ovoid cycle. However, because the national curriculum is oriented towards learning objectives (basic competencies and specific learning objectives), the process of the development of sets should start with learning objectives.

The nine components of stages of the Kemp model are Instructional Problems, Learner Characteristics, Task Analysis, Instructional Objectives, Content Sequencing, Instructional Strategies, Instructional Delivery, Evaluation Instruments, and Instructional Resources.

Based on the descriptions of the three learning device development design models above, basically, the components of the three models have the same substance. Even if there are differences, they do not lie in matters of principle. The three models aim to make the learning set developed truly reliable and function to improve the quality of learning.

d. Hanaffin and Pack's Model

Hanaffin and Pack's model describes patterns of thinking. In learning design, there are several models put forward by experts. In general, learning design models can be classified into class-oriented models, systems-oriented models, product-oriented models, procedural models, and circular models. A product-oriented model is a learning design model to produce a product, which is usually in the form of learning media such as learning videos, learning multimedia, or modules. An example of this model is Hannafin And Peck's model(1988).

Users of learning products or programs produced through the application of a learning system design in this model usually do not have direct contact with the program developer. Direct contact between program users only occurs during the evaluation process of the program prototype.

Models classified as product-oriented are usually characterized by four main assumptions, namely: (a) the product or learning program is really needed, (2) a new learning product or program needs to be produced, (3) a learning product or program requires trial and revision processes, and (4) learning products or programs can be used only with the guidance of the facilitator.

Hannafin and Peck's model is a learning design model that consists of three phases, namely the requirements analysis phase, the design phase, and the development and implementation phase (Hannafin & Peck, 1988). In this model, scoring and repetition need to be carried out in each phase.

e. ADDIE Model

There is one learning design model that is more generic in nature, namely the ADDIE (Analysis-Design-Develop-Implement-Evaluate) model, which emerged in the 1990s, developed by Reiser and Mollenda. It serves as a guide in building training program tools and infrastructure that are effective, dynamic, and support the training performance itself. This model uses five stages of development, namely Analysis, Design, Development, Implementation, and Evaluation.

4. Theory of Knowledge

According to the online version of the Big Indonesian Dictionary (KBBI), knowledge means everything that is known; intelligence; or everything that is known in connection with a thing (subject). As for some experts:

Knowledge is a reaction from humans to their stimuli by the surrounding environment through contact through objects with senses and is the result that occurs after people sense a certain object.

Knowledge is a memory about materials that have been studied and perhaps involves tying back a broad set of things that are detailed by theory, but what is given uses the memory of the appropriate information.

Notoatmodjo (2003) stated that knowledge is the result of knowing after people sense certain objects. Sensing occurs through the five human senses, namely the senses of sight, hearing, smell, taste, and touch. Most of the human knowledge is obtained through the eyes and ears.

Some of the definitions of knowledge above indicate that knowledge is everything that is known and obtained through the five senses to a certain object. Knowledge is basically the result of

the process of seeing, hearing, feeling, and thinking, which is the basis for human behavior and action. Knowledge is associated with everything that is known to be related to the learning process.

The scientific meaning, according to KBBI Online, is science; scientifically; meet the requirements (rules) of science. Knowledge is said to be scientific if it meets scientific principles, namely: empirical, objective, measurable, rational, and systematic. Thus, scientific knowledge can be defined as everything that is known obtained from the touch of the five senses to a certain object which has fulfilled the requirements (rules) of science. Several factors affect a person's knowledge, including Education, Media, Information, Socio-Culture and Economy, Environment, Experience, and Age.

Furthermore, knowledge is divided into two: empirical and rational. The former or aposteriori knowledge is knowledge that emphasizes observation and sensory experience. This kind of knowledge can be obtained by making observations both empirically and rationally. It can also develop into descriptive knowledge if a person can describe all the characteristics and symptoms that exist in the empirical object. It can also be acquired through repeated experiences. For example, someone who is often chosen to lead an organization will automatically gain knowledge of organizational management. Meanwhile, rational knowledge is obtained through reason. Rationalism emphasizes a priori knowledge rather than experience. For example, in mathematics, $1 + 1 = 2$ is not obtained through experience or empirical observation, but through logical thinking of reason.

5. Self-Control

Self-control is the power of control over and by oneself. It occurs when a person or organism tries to change how he/she should think, feel, or behave. Self-control is an individual's tendency to consider various consequences for certain behaviors. It is the individual's ability to hold back or direct the self to a better direction when faced with temptations.

Self-control is said to be the human ability to restrain and control inappropriate social behavior. That failure in self-control can contribute to the most aggressive actions that include violence.

When aggression urges become active, self-control can help a person ignore the urge to behave aggressively, and will help him respond according to personal or social standards that can suppress that aggressive behavior. Another explanation also suggests that individuals with low levels of self-control are more likely to engage in criminal and deviant behavior than those with high levels of self-control (Palmer & Keown-McMullan, 2000).

Self-control is a major function of self and an important key to success in life. Research showed that high self-control is also associated with better self-adjustment (including reduced psychopathology and increased self-esteem) contributing to academic success, reduction of overeating and alcohol abuse, getting better relationships, and having good interpersonal skills. Self-control allows humans to live and work together in a cultural system that can benefit various parties, as well as many other positive benefits.

Broadly speaking, it can be concluded that self-control is related to how individuals control their emotions and drives from within themselves so that they can make decisions and take effective actions following ideal standards, moral values, and social expectations.

6. Self-control and Relationships with Peers

Self-control not only determines criminal behavior, but also the development of social ties that occur. Low self-control correlates with criminal behavior and can disrupt social bonds. Individuals with low self-control tend to have weak or damaged social relationships. From the results of his research, (Grindstaff & Chappell, 2006)concluded that low self-control leads to peer rejection, relationships with colleagues or groups that deviate (deviant peer), and delinquency.

Self-control and physical violence and psychological aggression in participants have a strong and statistically significant relationship. It

shows that weak self-control in men and women increases physical violence and psychological aggression. In this study, it is also explained that violence committed by an adult is influenced by the violence that occured within his/her family.

This is supported by other research that shows that participants who live in families with a positive environment have higher self-control compared to their peers who come from non-harmonious families. In this study, it was also explained that high self-control has a close relationship with positive interpersonal relationships. Good self-control will improve one's ability to get along which leads to better relationships with other people. This proves that self-control is positively correlated with family relationships and negatively correlated with family conflicts. High self-control will correlate with better relationship quality, increased empathy, and a willingness to forgive others' mistakes.

7. Theory of Attitude

Mental mechanisms that evaluate, form views, color feelings, and will contribute to determining the tendency of individual behavior towards other humans or something that is being faced by individuals, even towards themselves, is called an attitude phenomenon. The phenomenon of attitude that arises is not only determined by the state of the object being faced but also related to past experiences, the present situation, and expectations for the future. Human attitudes, or attitudes for short, have been defined in various versions by experts (Azwar, 2013).

Thurstone in Azwar (2013)defined attitude as the degree of positive or negative affect on a psychological object. Attitude is always directed at something or an object. There is no attitude without an object. LaPierre defined attitude as a pattern of behavior, tendency, or anticipatory readiness, and a predisposition to adapt to social situations, or, simply, is responses to conditioned social stimuli. The full definition of Petty & Cacioppo says that attitude is a general evaluation

that humans make of themselves, other people, objects, or issues.

According toFishbein and Ajzen (1975), attitude is a predisposition that is learned to respond consistently in certain ways concerning certain objects. Sherif & Sherif stated that attitude determines the regularity and uniqueness of a person's behavior about human stimuli or certain events. Attitude is a condition that allows an action or behavior to arise.

Azwar (2013)classified the definition of attitude in three frameworks of thought: *first*, the framework represented by psychologists such as Louis Thurstone, Rensis Likert, and Charles Osgood, saying that attitude is a form of evaluation or feeling reaction. A person's attitude towards an object is a feeling of support or favor (favorable) or that of not supporting or not taking sides (unfavorable) on it; *secondly*, the framework represented by experts such as Chave, Bogardus, LaPierre, Mead, and Gordon Allport, arguing that attitude is a kind of readiness to react to an object in certain ways. Readiness is a potential tendency to react in a certain way when the individual is faced with a stimulus that requires a response; and, *thirdly*, the thought oriented to the triadic schema (triadic schema), which defining attitude is a constellation of cognitive, affective, and conative components that interact with each other in understanding, feeling, and behaving towards an object.

So based on the definition above, it can be concluded that attitude is an individual's tendency to understand, feel, react, and behave towards an object which is the result of the interaction of cognitive, affective and conative components. The attitude itself consists of cognitive, affective, and behavioral components.

8. Factors affecting attitude

Azwar (2013)concluded that the factors that influence attitude formation are personal experiences, culture, other people who are considered important, mass media, educational institutions, religious institutions, and emotional

factors in individuals. The formation and change of attitude will be determined by two factors, namely:

a. Internal factors (individuals), namely the individual's way of responding to the outside world selectively to accept or reject something.

b. External factors, namely circumstances that exist outside the individual that are the stimulus to form or change attitudes.

Attitude formation is influenced by three factors, namely social influence, individual personality traits, and information received by individuals.

Based on the description above, it can be concluded that attitude formation is influenced by extrinsic factors that come from outside the individual and intrinsic ones that come from within the individual.

9. The manifestation of attitude in behavior

Azwar (2013) suggested 3 (three) postulates to identify three views on the relationship between attitudes and behavior, namely the postulate of consistency, the postulate of independent variation, and the postulate of contigent consistency. The following is an explanation of the three postulates:

a. The postulate of consistency

This postulate says that verbal attitudes provide sufficiently accurate clues to predict what someone will do when faced with an attitude object. It assumes that there is a direct relationship between attitude and behavior.

b. The postulate of independent variation

This postulate says that knowing attitudes does not mean being able to predict behavior because attitudes and behavior are two dimensions in an individual that are independent, separate, and different from one another.

c. The postulate of contigent consistency

This postulate states that the relationship between attitude and behavior is significantly determined by certain situational factors. Norms, roles, group membership, and others are dependent conditions that can change the relationship.

Therefore, the extent to which behavior predictions can be attributed to attitudes will differ over time and from one situation to another. This latter postulate makes more sense in explaining the relationship between attitude and behavior.

If the individual is in a situation completely free from various forms of pressure or obstacles that can interfere with the expression of his attitude, it can be expected that the forms of behavior he shows are the real expressions of his attitude. That is, the potential for attitude reactions that have been formed within the individual will appear in the form of actual behavior as a reflection of his real attitude towards something.

10. Training Concept

Many experts argued about the meaning, purpose, and benefits of training. In principle, their opinions are not very different from one another. Training as "a short-term educational process that uses systematic and organized methods and procedures. The trainees will learn practical knowledge and skills for a specific purpose ". Training is a process of helping others acquire skills and knowledge (Marzuki, 2015). Meanwhile, the term training is to show every process to develop the talents, skills, and abilities of employees to complete certain jobs.

In this research study, we would focus on the meaning of training, which contains a more specific meaning and relates to the work/tasks performed by a person. Meanwhile, what is meant by practical is that respondents who have been trained can apply it immediately so it must be practical (Fandy Tjiptono, 2009).

Training is very different from education. Education, in general, is philosophical, theoretical, general in nature, and has a relatively long range of learning times compared to training. Meanwhile, learning implies that there is a learning process inherent in a person. Learning occurs because there are people who learn and learning resources are available. It is a condition of a person or group who carries out a learning process.

Ttraining is basically a process of providing assistance to workers to master specific

skills or helping to correct shortcomings in carrying out work. Its activities focus on improving workability to meet the demand for the most effective way.

Based on this understanding, the purpose of training is not only to increase knowledge, skills, and attitudes but also to develop a person's talents so that he can do the job as required.

The general objectives of training are as follows: (1) to develop skills so that work can be completed more quickly and more effectively, (2) to develop knowledge so that work can be completed rationally, and (3) to develop attitudes, thereby generating a willingness to collaborate with fellow employees and with management (leadership).

The above definitions led the researcher to conclude that what is meant by training, in this case, is an educational process in which there is a learning process carried out in the short term, aimed at increasing knowledge, attitudes and skills, to increase individual competence to face work in the organization so that organizational goals can be achieved. Thus, it can be concluded that "training is an activity to improve both current and future performance".

The purpose of training, according to Tjiptono and Diana (2015), is to increase the knowledge, skills, and attitudes of employees, as well as improve the quality and productivity of the organization as a whole. In other words, training aims to improve performance and in turn increase competitiveness.

So the meaning, purpose, and benefits of training are essentially a manifestation of training activities. In training, in principle, there are learning process activities, both theoretical and practical, which aim to improve and develop academic, social, and personal competencies or abilities in the fields of knowledge, skills, and attitudes, and benefit employees (trainees) in improving their performance on the tasks or jobs they are responsible for.

11. Principles of Training

Training, to be beneficial to participants and achieve its objectives optimally, should follow general principles. Dale Yoder (1962) in his book Personal Principles and Policies mentioned nine general principles in training activities, namely (1) individual differences, (2) relation to job analysis, (3) motivation, (4) active participation, (5) selection of trainees, (6) selection of trainers, (7) trainers of training (8) training method's, and (9) principles of learning.

Dale Yoder's opinion above suggests that in training activities, individual differences in participants must get the main attention. The characteristics of the participants will color and determine the success of the implementation of the training. The training must also be linked to the job analysis of the participants (prospective participants) so that the results of the training will be useful in carrying out their job duties.

Then, for training success, the training method and learning principles used must be following the type of training provided. Although no method is the most perfect, several alternative methods that are suitable for the characteristics of the training participants can be found. In this case, there are minimum requirements that the trainers need to pay attention to in choosing a training method, namely (1) accordance to the circumstances and the number of targets; (2) sufficiency in quantity and quality of material; (3) rightness to the destination on time; (4) acceptability, understandability, and easiness of implementation of the mandate; and (5) low in cost.

Meanwhile, the learning principles will provide direction of how a person (training participant) can learn effectively in training activities. Learning will be more effective if the training method is following the learning style of the participants and the types of work required. The principles of effective learning are often reflected in participation, repetition, transference, and feedback.

12. Training Program Development

In developing a training program, for training to be beneficial and profitable, systematic stages or steps are needed. In general, there are three stages in training, namely the need assessment stage, the training implementation stage, and the evaluation stage. In other words, there are planning, implementation, and post-training stages.

The steps commonly used in the development of training programs, principally include (l) need assessment, (2) training and development objectives, (3) program content, (4)

learning principles, (5) actual program, (b) skill knowledgeability of works, and (7) evaluation. Cconcept of eight training steps: (1) the needs and resources assessment stage for training, (2) identifying training targets, (3) developing criteria, (4) conducting pre-tests for apprentices, (5) choosing training techniques and learning process principles, (6) conducting training, (7) monitoring training, and (8) comparing training results against the criteria used.

13. Training Management

Training management, in a broader context, has a dimension on how training can run properly and succeed effectively and efficiently. Conceptually, training management can be defined as "the process of planning, organizing, mobilizing, and evaluating training activities by utilizing its aspects to achieve its objectives effectively and efficiently". In other contexts, training management is synonymous with project management.

The training management process begins with an analysis, namely analyzing the needs for the things that will be the objects of the training and then proceeding with designing the training program. The next stage is implementation and application, namely the process of implementing the training programs, continued by evaluation, namely the stage to provide assessment and development analysis. At each of these stages, there is a feedback process that aims to control the effectiveness of the implementation and training process.

Training planning is essentially the process of drafting a training program, namely the process of preparing various matters regarding training preparation. There are three stages in training, namely the needs assessment stage, the training implementation stage, and the evaluation stage or, in other terms, the training planning phase, the training implementation phase, and the post-training phase. The three stages or phases contain steps for developing a training program. The steps commonly used in the development of a training program, in principle, include (l) need assessment; (2) training and development objectives; (3) content program; (4) learning principles; (5) actual program, (b) skill knowledgeability of works; and (7) evaluation. Offering eight training steps, namely (1) the needs and resources assessment stage for training; (2) identification of training objectives; (3) development of criteria; (4) pre-test for the apprentices (5) selection of training techniques and the principles of the learning process; (6) carrying outtraining; (7) monitoring training; and (8) comparing training results against the criteria used.

14. Training to improve performance

Human resources who are skilled and have high performance are needed in this era of globalization to be able to compete at the international level. Today's organizations realize that the productivity of quality human resources is a major asset to achieve goals. Therefore, the management of human resource management must be optimized. It is necessary to realize together that to develop human resources, every organization has limitations.So, it is necessary to involve other parties in the human resource development process, in the form of training. "with the development of human resources, it is expected that work productivity will increase, the quality and quantity of production will be better because the technical skills and managerial skills of human resources are getting better.""training is a teaching and learning process using certain techniques and methods to improve one's work skills and abilities. The purpose of training is to increase productivity."

15. Environmental Training Models

A training model is considered effective when it can be based on a curriculum, approach, and strategy following the needs of students and the problems that occur among these students. For that, an effective and efficient training model is needed by training participants. This term, in the world of non-formal education or education, is known as TNA (Training Needs Assessment), SMA (Subject Matter Analysis), and ATD (Approach Training and Development).

16. Training Needs Assessment

Training needs are closely related to learning needs, which are defined as the ability gap between the abilities possessed and those required or prerequisite in the life of the training participants. This ability concerns knowledge, attitudes, values, and behavior in accordance with the aspects that are the context of attention. When

we are talking about training participants who are targets, the needs of trainees who are targets are closely related to the knowledge, skills, and attitudes that apply to their lives or in the world of work.

The learning needs of the training participants can develop, increase, decrease, and even be sustainable or change. The fulfillment of a need can be a potential to give birth to new needs with a higher position. Training participants who have understood the basic knowledge will immediately carry out a self-assessment, the results of which will be the capital to find out the higher knowledge on it. However, behind that, the need will change, increase, and decrease due to the limitations of the training participants in seeing the importance or not of knowledge for themselves, as well as the willingness and ability to understand themselves.

Learning needs that grow within the self require a learning program that meets them. Likewise, the diversity of learning needs that are felt demands a more active and diverse learning program. Thus, determining learning needs need an identification process. Some of the most recognizable training need assessment techniques include interviewing, observing, working with groups, and writing questioner and surveys.

17. Subject Matter Analysis

Some of the training models developed by experts are adapted to training approaches, strategies, and materials. These models have been developed for a long time and are still in use today, by adapting the process and steps to the development of the abilities of the trainees, the problems that need to be solved, the curriculum needs, and the training methodology itself. The model of skills training for the job was developed. It includes four steps in conducting the training, namely: assessing the reasons and establishing a training program, determining formal and informal meetings during the training and understanding the problems of the training participants, selecting effective presentations and implementing and assessing the results of the training, the activities of which include knowledge transformation and skills and values based on training programs, and evaluation of changes in participant behavior after attending the training.

A training model which can be called the seven-step model (the step model). It includes the following steps: *first*, carrying out the identification and analysis of the needs of the exercise; *secondly*, formulating and developing training objectives; thirdly, designing an exercise curriculum; *fourthly*: selecting and developing training methods; *fifthly*, determining the exercise evaluation approach; *sixthly*, carrying outanexercise program; and, *seventhly*, measuring the results of the exercise. The steps should be carried out sequentially. However, the results of the seventh step, namely the measurement of training results, can be used as input for the second step, namely, to develop training objectives, or the first step, namely to identify and analyze training needs, concerning training based on the training process and material provided by the Ministry of Environment, among others: 1) training on B3 and B3 waste management, 2) training on laboratory management, 3) training on air, water, and soil control, 4) and the like.

18. Approach training and development

Ttraining and development as "a process that systematically develops individual skills aimed at improving performance." Organizations strategically implement training and development programs to improve workers' skills and knowledge according to current needs or prepare human resources to face future job demands. Training and development begin with the identification of training needs and an evaluation of the results of the training that has been carried out.

Measuring training needs is a very important first step for the implementation of training (and can significantly influence the success of training and development. Despite this, there are still few companies that measure training needs for the design and development of training programs. There are still few studies that examine the relationship between the measurement of training needs (needs assessment) and the results of the training being carried out. Environmental training based on ATD (Approach training and development) is 1) environmental impact assessment (AMDAL) training at all levels, 2) strategic environmental training (KLHS), 3) environmental economic valuation training, 4) and the like.

19. Effective Training Model

A training mode, to be effective, is influenced by several factors. Training is basically a human activity in a learning process held to improve employee performance in learning tasks based on specified standards. A training program should be designed effectively. The characteristics of an effective training program design, include having clear goals, being guided by expert instructors, containing in-depth contents, according to the technical background, problems, and perceptiveness of the participants, using appropriate methods, and increasing the active involvement of the participants.

The training program design characteristics above include three main points: the material must be conveyed clearly and in-depth and following the technical background; the method of the delivery of training and material is carried out by skilled instructors and actively involves the trainees; and evaluation of training implementation.

Notoatmodjo (2003)argued that designing and developing an effective training program needs to follow a cycle starting from analyzing f training needs, setting training objectives, developing curriculum (material), preparing for the implementation of exercises, implementing exercises, and evaluating the implementation of exercises.

Organizational analysis is an examination of the types of problems experienced by organizations. Operational analysis tries to answer the question of what to emphasize in training within an organization and what factors can influence training. The organizational needs analysis should focus on the number of employees with the various skills required at each level of each section for a certain period. Changes in organizational, market, and technology strategies can require employees to have new or different skills, knowledge, and attitudes. For example, an organization that introduces a new product in response to new market demand requires new skills of its employees. For this reason, several pieces of training need to be held to enable current employees to change jobs to avoid termination. Thus, at the level of organizational analysis, the most critical first stage is to link needs assessment with the achievement of organizational goals. If the relationship does not exist, training is unlikely to be useful or successful.

Effectiveness is viewed based on three perspectives,as follows: (1) individual perspective; (2) group perspective; and (3) organizational perspective. This implies that effectiveness has three levels, which form a complementary whole. The effectiveness based on individual perspective is at the initial level towards that of group perspective and organizational perspective. Effectiveness is always measured based on achievement, productivity, profit, and others. The definition above shows that productivity is part of effectiveness. Conceptually, education that has productivity is education that is effective and efficient. Furthermore, effectiveness can be seen in (1) equitable input, (2) large and high-quality output, (3) knowledge and output that corresponds to the needs of a developing community, and (4) adequate graduation income.

Based on some definitions above, effectiveness implies result (goal)-oriented and process-oriented, namely the organization's ability to adapt and sustain its life. Empirically, training is considered effective when it can improve the ability of the organization to carry out programs that have been planned systematically to achieve predetermined results or goals.

Following the meaning of effectiveness mentioned above, effective training is process-oriented training, where an organization can carry out systematic programs to achieve its goals and desired results. Training is considered effective if it can produce human resources who experience increased abilities and skills, as well as changes in attitudes to become more independent.

The effectiveness of training will affect the quality of the performance of the human resources (HR) it produces. Thus, the effectiveness of training is seen from its impact on the organization in achieving its goals. The effectiveness of training from 1) reactions to how participants feel about the program; 2) learning - knowledge, skills, and attitudes acquired as a result of training; 3) behavior changes that occur at work as a result of work: and 4) results of the overall impact of training, namely organizational effectiveness or achievement of organizational goals.

There are 4 (four) levels in measuring the effectiveness of training: reaction, learning, behavior, and result. At the level of reaction, what is measured is the participants' perceptions of "like & dislike" to the training program being followed. At this stage, the information obtained is limited to the training program carried out, not covering ROI. In other words, measuring the reactions of trainees does not reveal how significant the effectiveness of the training contributes to the increase in organizational value.

Conclusion

Environmental education is deemed necessary to seek various learning strategies and people's learning experiences to achieve the learning objectives of environmental preservation more effectively and to be able to contribute and provide answers to the changing conditions of the times.

The environmental conservation model can be classified into two interconnected parts, namely the learning model and the training model.

Environmental preservation learning models can use several models, including Plomp's Model, Dick and Carey's Model, Morrison Ross and Kemp's Model, Hanaffin and Pack's Model, and Moddie Model. These various models are procedurally and systematically constructed designs.

The environmental conservation training model, in addition to the writing of this article, includes training needs assessment, subject matter analysis, and approach training and development.

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