

# *The Application Model of Naval Collaboration Flexible Learning (NCFL) in the Indonesian Naval Technology College: A Case Study*

Adi Bandonu, Abdul Rahman, Okol Sri Suharyo

Indonesian Naval Technology College, STTAL Surabaya Indonesia



**Abstract** – The Indonesian Navy requires the posture of a professional soldier, who has collaborative competence and can understand the characteristics of the masses from a psychological perspective. Mastery of these competencies is of course not directly available but must go through a planned, complex, gradual, continuous, and measurable process, one of which is through educational activities. The problem in this research is how the appropriate learning model to be applied in education at The Indonesian Naval Technology College to produce the expected output of officers. The purpose of this study is to find the suitability of the learning model that can be applied at The Indonesian Naval Technology College. This research method uses a qualitative method with a process of in-depth observation of the research object. Primary data were obtained from experts in the field of education improvement issues within The Indonesian Naval Technology College through an interview process. The results of the research show that The Indonesian Naval Technology College needs to apply the Naval Collaboration Flexible Learning (NFCL) model which can combine learning models with five approaches, namely (1) Philosophical Pancasila, (2) Indonesian Navy Culture, (3) Systems Theory, (4) Communication Theory, (5) Learning and Learning Theory. So that the output of officers of the Indonesian National Armed Forces will be obtained following expectations.

**Keywords** – Learning Model, Naval Collaboration Flexible Learning (NCFL), Qualitative Method.

## I. INTRODUCTION

In this global information era full of uncertainty, the ability to manage uncertainty is needed by every human being. Bass and Steidlmeier (1999) suggest that the global era requires transformational leadership with moral character, concern for others, and ethical values in behavior. Sankar (2003) argues that the global era also requires quality leadership with the characteristics of being willing to work hard, being honest, respecting others, being humble, and paying attention to the best things.

According to Rosene (2005), the future challenges of the Navy organization require futuristic leaders who are inspirational, initiative, innovative, committed, and

trustworthy, who can face the phenomenon of asymmetric warfare in the 21st century. Hancer, Miller, Shukiar, and Newsome (2008) identify types of future Navy challenges, including air warfare, counter-terrorism, expeditionary warfare, information warfare, intelligence, preparation and logistics, mine and underwater warfare, special warfare, submarine warfare, and surface warfare. The complexity of these challenges requires the expertise of Navy soldiers capable of leading change, leading personnel, and managing multiple sources.

In line with the dynamics of the development of the strategic environment, the Indonesian National Armed Forces, as part of the Indonesian National Armed Forces institution, carry out increasingly heavy and complex main

tasks. Conflicts between countries related to international maritime boundary issues (mainly Malaysia), increasingly vulnerable sea trade routes and security problems at sea (piracy, illegal fishing, illegal logging), rampant terrorism, and the number of natural disasters in several regions in Indonesia.

To be able to solve complex problems in plural society quickly and accurately, it requires the posture of a professional soldier, who has collaborative competence and can understand the characteristics of the masses from a psychological perspective. Mastery of these competencies is of course not directly available but must go through a planned, complex, gradual, continuous, and measurable process, one of which is through educational activities (Negara, 2017).

In connection with the fulfillment of the aforementioned competency needs, it is necessary to develop a learning model called "Naval Collaboration Flexible Learning (NCFL) Learning Model", which is a learning model designed with a structure of objectives, activities, and assessments that support mastery of collaborative competencies and academic competence (Mass Psychology knowledge) that is needed by an officer of the Indonesian Navy in the initial assignment in the unit.

This paper has many literatures to support the research, such as literature with title The use of value clarification technique-based- picture story media as an alternative media to value education in primary school (Fariyatul & Bandonu, 2017), STTAL Development Strategy To Produce Human Resources That Acknowledge Technology Facing The Industrial Revolution Era 4.0 (Mashudi, Rahman, Bandonu, & Hasan, 2019), Developing Mathematics Learning Model of Thinking Empowerment by Question (TEQ) with TAI Setting to Improve Students' Metacognition Ability (Khasanah & Astuti, 2018), The Quiet Revolution in science Education-Teaching Science The Way Students Learn (Bunce, 1996), The Comparison of Learning Model Viewed from the Students Thinking Style (Fauzi, Usodo, & Subanti, 2017), Effects of Cooperative Learning on Students at An Giang University in Vietnam (Tran & Lewis, 2012), The Effects of Cooperative Learning on Students' Mathematics Achievement and Attitude toward Mathematics (Zakaria, Chin, & Daud, 2010).

This research is organized as follows, chapter 1 introduction, chapter 2 shows material and methodology, chapter 3 shows the results of data and discussion, chapter 4 conclusion.

## **II. MATERIAL AND METHODS**

### **2.1. Definition of Study and Learning.**

Learning and learning from time to time continues to develop. Historically, the learning and learning events themselves have been started since humans existed until now. The conception of learning develops in line with the dynamics of human life and the changing strategic environment. The development of the conception of learning is always followed by the development of learning practices. Thus, learning and learning are two inseparable conceptions and are dynamic following the times (Cheng, 2011).

Practitioners, developers, and learning scientists agree that learning activities and learning actions are not simple and easy to implement the process (Hsiung, 2012). The learning event itself is a very complex process involving various internal variables within the learner and requires external stimulants in the form of efforts to teach learners. So learning activities are always closely related to learning actions. Therefore an understanding of the learning process is very useful for learners in developing their learning actions so that students will be able to more easily carry out the learning process.

The main difference between learning theory and learning process is that learning theory refers to the learning process within the learner, whereas learning theory refers to the learner's efforts in the learning process. So the learning theory focuses on what happens inside the learner while the learning theory focuses on external efforts made by learners to make it easier for learners to learn (Nasution, 2017).

Learning events experienced by learners are influenced by views of the learning process itself. There are three major views of the learning process which are divided into three approaches to learning theories that have developed to date, namely: behaviorism theory, cognitivism, and constructivism. These three learning theory approaches guide to the practical level (application) in the form of efforts in learning actions (Mahanal, Zubaidah, Sumiati, Sari, & Ismirawati, 2019). From this third approach to learning theory, learning theory was born.

### **2.2. Choosing a Learning Theory Approach for Learning Practice Learning.**

The theory has been described as an attempt to explain how a person acquires new knowledge and skills. In the previous explanation, three perspectives on learning theory approaches have been very influential in learning practice. Each of these approaches certainly contains weaknesses and strengths (Zubaidah, 2017). Which is the best learning theory

approach to instructional practice? Before answering this question, other analogous questions should be listened to. What types of food are best for the human body? The obvious answer is that there is no best food in the world. Humans must eat a variety of foods because each food contributes to contribute to nutrients that are suitable for health. A learner must believe and understand that a variety of theoretical perspectives is necessary to contribute to producing appropriate learning practices.

The different principles from the three perspectives of the approach can be applied in various learning situations and in specific units of time. For example, the application of reinforcement (behaviorism perspective), organizing information in texts (cognitivism perspective), and learning together through collaboration with others (constructivism perspective), these principles can be implemented in units of learning time (Newby, Stepich, Lehman, Russell , 2000).

The internal process that takes place when a person learns, to be effective, efficient and attractive, requires efforts to improve the quality of a stimulant that comes from external variables, which is called by Glaser (1976) the "science of designing" learning or what is called by Degeng (1989). ) as "learning science". The study of learning science according to Reigeluth (1983) includes three learning variables, including conditions, results, and methods. Of the three taxonomies of learning variables, the center of study in learning science is the learning method variable. In the learning method, there are activities to choose, determine, and develop learning strategies referred to as structuring methods so that a procedural sequence of steps can be used to achieve the expected learning outcomes. According to Degeng (1997), these activities are the essence of learning.

### **2.3. Understanding the Learning Model.**

In essence, the learning model is a set of components of an integrated learning strategy and is described as a complete method with important parts which are described in detail as a guide in carrying out learning practices. Learning model according to Seels (1997), Richey (1997), Gros et al. (1997), Reigeluth (1997), and Wilson (1997) are means of translating theory into learning practice or formulating theories based on practical findings. The model bridges theory and practice, meaning that the model translates from theory into the world of concrete and practice, and vice versa, through practice, a theory will be created. Therefore a model is prescriptive. As a model, the entire series of activities is based on theories, including systems theory, communication theory, learning theory, and learning theory. This means that a model must be able to bridge theory and practice.

The learning model is differentiated from the learning development model. The scope of the learning model is the microscope, how a learning method with various kinds of strategic procedures that are described in detail can be applied in learning practice (Yu-hui, Li-rong, & Yue, 2010). The scope of the learning development model is the macroscope, how a learning method in which a learning strategy has been determined, is selected through a series of analysis processes, is designed, developed, produced, applied, and evaluated as a series of learning activities under certain conditions and with predetermined results. also. If the series of procedures for learning development activities has gone through a series of trials and its effectiveness, efficiency and attractiveness have been proven, then the series of procedures can be established as a learning development model.

Why is a model needed in learning? What is the real urgency of a model? These two questions lead to what role models play in improving the quality of learning. Regarding the role of the model in learning, it can be explained as follows: a). For developers and learning scientists, learning models have an important role as a means of translating theory into learning practice (Seels & Richey, 1994). Learning theories are one of the foundations for implementing learning practices or actions appropriately as needed so that the expected goals can be achieved. b). For learners or learning practitioners, learning models play an important role in helping determine and choose learning actions appropriately. With various kinds of learning models, learning practitioners will be able to more easily and freely choose, determine, and apply the right model for the learning practices they carry out. c). For students, the learning model plays an important role in providing fluency and convenience for learners in finding more appropriate ways to carry out the learning process according to their learning needs. Through the application of the learning model appropriately, it is hoped that students will be able to achieve learning objectives effectively, efficiently, and attractively.

### **2.4. Research Methodology**

This research method uses a qualitative method with a process of in-depth observation of the research object. Primary data were obtained from experts in the field of education improvement issues within The Indonesian Naval Technology College through an interview process. Secondary data were collected from various existing literature including several previous studies that had been uploaded.

The object of research is The Indonesian Naval Technology College, which in that place is carrying out education by producing the output of Navy officers. The

research was conducted over a period of six months from January to June 2020.

### III. RESULT AND DISCUSSION

#### 3.1. Approach to Learning Model Development NCFL.

Amory (2007) suggests that in developing software the design should be based on learning theories. Ardhana (2008) adds that to improve the quality of educational practice, more and more quality research on learning theory is needed. This needs to be done because as stated by Pogrow (in Ardhana, 2008) if you look at the history of education reform, it almost always ends in a worse situation. Why is that? The answer is because these studies are not based or supported by a strong and quality theoretical foundation. In this sense, each activity in the product element of the learning design must be designed and built using a theoretical basis as an approach to improve learning outcomes and better learning processes, including generating intrinsic motivation, learner involvement in learning, providing real experiences and social space for supported learners with learning resources that can be used flexibly.

According to Schumpeter, innovation means efforts to create and implement something into one combination so that innovation can provide added value to products, services, work processes, and policies not only for educational institutions but also for stakeholders and society. Wina Sanjaya in her book curriculum and learning states that innovation is something new in certain social situations and is used to answer or solve a problem (Samarawikrema & Stacey, 2007).

From the point of view of the diffusion of educational innovation, the NCFL learning model is an innovation that deserves to be applied to an education, which in this learning model has combined several parameters to become one in a learning model.

The level of effectiveness of this learning model can be measured from the output of the student's output, and in this study, officers of the Indonesian Navy who are professional,

independent, have good character, can answer global challenges, have a reliable communication style.

Given the importance of an approach to designing and building a model, the NCFL learning model at The Indonesian Naval Technology College, its development is based on several approaches, including: (1) Philosophical Pancasila, (2) Indonesian Navy Culture, (3) System Theory, (4) Communication Theory, (5) Learning and Learning Theory. Specifically for the learning and learning theory approach, there are several theoretical foundations used, including: (5a) Elaboration Theory, (5b) Collaborative Learning Procedures, (5c) Experiential Learning, (5d) Flexible Learning, and (5e) Learning Model Development Theory.

The Pancasila philosophical approach in the NCFL model is the main foundation that underlies all approaches, both the cultural approach of the Indonesian Navy and other theoretical approaches. These approaches are based on the same basic assumptions, namely, that: (1) the individual learner is an active agent who is always meaningfully looking for and building his knowledge in a meaningful social context. The meaningful meaning here is that the knowledge that is built has enormous benefits and is following the needs of the learners themselves and the needs of their social environment. (2) Individual learners still need learning actions from learners that are carried out with great compassion, nurture, and care, and responsibility. (3) The learning process requires an environment that has been designed to be multi-perspective, multi-variation, and flexible to make it easier for learners to carry out their learning activities.

The five approaches that form the basis for developing the NCFL learning model, namely: Pancasila Philosophy, Indonesian Navy Culture, Systems Theory, Communication Theory, and Learning and Learning Theory, can be described as follows: Philosophical Pancasila, (2) Culture of the Navy, (3) Systems Theory, (4) Communication Theory, (5) Learning and Learning Theory.

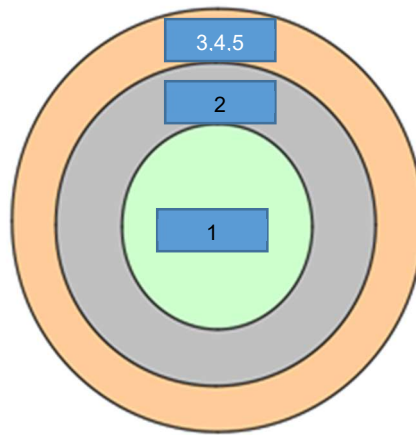


Figure 1: Approach which underlies the Learning model NCFL

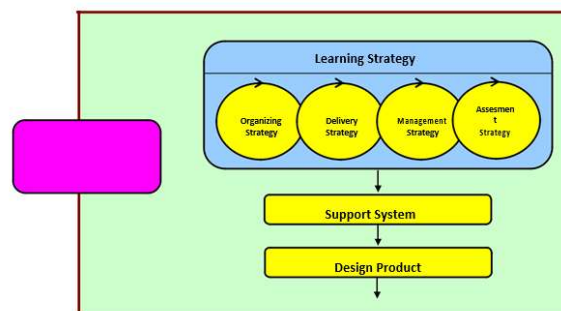


Figure 2: Syntax Stage Design and Development

**The Pancasila Philosophical Approach**

Referring to the goals of education, Pancasila is the soul of personality that is integrated into every soldier, therefore efforts to build all values of struggle and leadership as well as professional expertise as a soldier must be sourced and based on the values of the Pancasila philosophy as stipulated in UUD 1945.

Pancasila, as a philosophical foundation that colors the mindset, attitude, and action patterns of every soldier in the Indonesian Navy in everyday life, contains a value system that guides the life of society and the state. Every soldier in his relationship with fellow social creatures around him must refer to Pancasila which is coherent, logical, efficient, and can be scientifically accountable.

The essence of Pancasila is "Bhineka Tunggal Ika" which is a symbol of the unity and unity of ethnic groups that have various cultures, but still one, namely the national culture. The values of ethnic and cultural diversity in Pancasila have been described in the principle of Bhineka Tunggal Ika. In that relationship, national unity and integrity are no longer uniformity but rather a form of diversity in diversity. Plurality

must also be realized in an education system that reflects diversity in one unit.

Based on the values of Pancasila, every soldier in the Indonesian Navy has the duty and obligation to maintain the integrity of the Indonesian nation. To build and foster a sense of unity and integrity that is applied in learning activities, in the context of learning it is necessary to develop collaborative competencies through the development of learning models.

**The Cultural Approach of the Indonesian National Armed Forces, The Navy.**

A cultural approach is a cultural approach that includes all processes and products produced by humans, both individually and socially, to maintain and improve life (Wahid, 2003). Culture itself is a way of life that has been developed by members of society (Pidarta, 1997).

Culture contains the meaning of the art of living in human social life which is built from social interactions between humans and groups in certain areas. Culture includes the process of thinking, feeling, and acting to meet needs and achieve a better life. A better life is a life that represents the image of humanity in social relationships.



Culture is closely related to people's life. Everything contained in society is determined by the culture that is owned by the community itself. Culture can also be viewed as something that is passed down from one generation to another. Culture contains the whole meaning of values, norms, science and technology, the entire social, religious, intellectual, and artistic structures that characterize a society, including the characteristics of the members of the community in it. So culture is a means of the work, taste, and creation of society.

The cultural life of Indonesian Navy soldiers is always related to leadership. A student officer is a prospective officer who will become a leader in the Indonesian Navy organization. An officer in the Indonesian Navy not only carries out a leadership function and role as a commander but also must be able to act as a father, teacher, supervisor, facilitator, and partner. These functions and roles are shown in a moral bond and togetherness which is indispensable in achieving organizational goals. This leadership is built on the main basic pillars including the value of struggle in Pancasila and Sapta Marga, leadership values in the Eleven Principles of Leadership of the Indonesian National Army, the Eight Compulsory Indonesian National Armed Forces and specifically the Indonesian National Armed Forces, plus the Indonesian Armed Forces the Navy Trisila. The sea is developed following the development of the global environmental strategy.

Pancasila and Sapta Marga are a pledge of loyalty from every soldier of the Indonesian National Army to be able to defend the nation and nation of Indonesia honestly, truthfully, fairly, and uphold discipline, obedience, and obedience to leadership and always uphold the attitude and honor of soldiers. Both are behavioral guidelines that must be adhered to in carrying out their duties as a soldier.

### **The Systems Approach**

The system contains elements that are interrelated and form an integrated unit. That unity serves to achieve goals, produces results that can be observed and recognized. The system is a comprehensive strategy of all elements which form a single unit. The system consists of several sub-systems, each sub-system consists of several sub-systems, each sub-system consists of sub-sub-systems or to the smallest part that cannot be divided again called components. The system itself can form a larger system called a supra system.

As a system, the educational output of the Oceanic Ocean Academy that is produced cannot be separated from the user community as customers who use, utilize, feel and assess the

readiness and independence of the results of students. In the education system of the Angkatan Laut Academy, there is a sub-system consisting of inputs, processes, outputs, and outcomes. Input is input or whatever will be used in implementing the program. Input involves sources, including Educational Curriculum, Instruction Packages, Educators, Education Personnel, Cadets (Students), Alins Alongins (Learning Resources), Teaching Methods, Educational Evaluation, Educational Facilities (Facilities), Education Budget, as well as contained in 10 educational components.

As a system, in a macro review, the input and process are related to the internal efforts of the organization, while the output is related to the internal output of the organization. The outcomes that are external to the organization (Kotama / Units outside the Angkatan Laut Academy) are related to student outcomes, which still require guidance from stakeholders in the user community to achieve the competency standards for professional officers of the Indonesian National Navy as expected. As a system, in a micro review that is in the scope of learning, the input and process are related to the efforts of learners in carrying out learning activities to obtain quality learning outputs and outcomes.

### **Communication Theory Approach**

In interpersonal communication, the communicator who acts as a source encoder encodes the message to the communicant, then the communicant will encode the message it receives (receiver decoder). Because communication is reciprocal, it will cause a change in role and function, which initially acts as a communicator to turn into a communicant, as well as what was originally a communicant turned into a communicator. This means that the encoder changes to a decoder, and from a decoder to an encoder. With the change in status from the encoder to the decoder and vice versa, there has been a feedback flow that plays a major role in the continuity of communication.

Thus communication is an inseparable part of human life, including the life between learners and learners. In the context of learning, there is a relationship between interpersonal communication between learners and learners. The element of communication in learning has become an important factor to help learners and learners in creating effective learning processes and outcomes. Moore (2005) suggests that a learner must have sensitivity or sensitivity in managing communication skills as well as being able to monitor the effectiveness of interactions between learners and learners. Therefore a learner must master communication skills.

## Learning and Learning Theory Approaches

A learning designer needs to think about polarizing two or three different theories in one unit. Alessi and Trollip (2001) then introduced a model which he called the Binary model to accommodate two or three theories in one learning model at the same time.

Responding to the current development of learning and learning theory paradigms, in developing the NCFL learning model, the developer uses "multiple learning perspectives". The developer views that the learning process is a very complex process, which involves many aspects and related variables, so it requires a variety of approaches to learning methods and strategies. Therefore, to produce effective, efficient, and attractive learning, it requires learning actions that can accommodate the three paradigms of learning and learning theories that are currently developing. As Mayer (1999) argues, which sees the learning process from three perspectives at once in a person, namely learning as a reinforcement of response (behaviorism), learning as the acquisition of knowledge (cognitivism), and learning as a knowledge construction (constructivism). From these three perspectives of learning and learning theory, it will produce learning actions under the need to be achieved.

## IV. CONCLUSION

To be able to solve complex problems in plural society quickly and precisely, it requires the posture of a professional soldier, who has collaborative competence and can understand the characteristics of the masses from a psychological perspective. Mastery of these competencies is of course not directly available but must go through a planned, complex, gradual, continuous, and measurable process, one of which is through educational activities. The Indonesian Naval Technology College needs to apply the Naval Collaboration Flexible Learning (NFCL) model which can combine learning models with five approaches, namely (1) Philosophical Pancasila, (2) Indonesian Navy Culture, (3) Systems Theory, (4) Communication Theory, (5) Learning and Learning Theory. So that the output of officers of the Indonesian National Armed Forces will be obtained following expectations.

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