MACRO APPROACH IN NATIONAL EDUCATION SYSTEM

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Abstract

Macro approach in the national education is both organization empowering and education process. Education excuting organization has coverage and autonomous that it can accommodate society need in every situation. The education process is carried out openly to inlarge inputs from society. the education process is carried out by instilling a sense of excellence to face global challenges, while at the same time trying to make educational institutions the center of civilization. all that requires educational innovation that focuses on curriculum renewal, teaching materials, evaluation systems, building repairs and construction, etc. Teachers as education personnel have a central role in administering an education system. By becoming a teacher, someone expects to be able to obtain adequate compensation for the necessities of life. In motivation theory, the provision of appropriate rewards and punishments, can affect the performance and quality of work.

Keywords: Approach, Macro, System, National Education

Introduction

Systems thinking has been so popular among the people that this raises a variety of opinions from thinkers (intellectuals) about system thinking. In the opinion of Mood the system thinking is almost liked by everyone, but this opinion received a response that Mood's statement was considered excessive and objectively difficult to refute. As with Lazer's opinion, he views system thinking as managerial innovation while others consider system thinking as a new paradigm of research. System thinking is increasingly attracting the attention of many people, ranging from lay people, university professors even from poets to philosophers. System thinking has been applied to various fields of research ranging from education, defense, deciding the construction of the highway even to selecting husband / wife. But in its development the system of thought raises the pros and cons of supporters and opponents. The flow of contemporary philosophy reveals that systems thinking is a holistic approach to research. Proponents of this school refer to system thinking as' the 'New Paradigm of Contemporary Thought'. Kuhn asserted the paradigm as what was shared by the scientific community and vice versa the scientific community consisted of people who shared the paradigm.

D.C. Philips argues that system thinking is essentially a philosophy that is not believed to be true, but this is refuted by Fenwick English who states that system thinking will enter the philosophical school known as scientific realism. The characteristics of system thinking are not equivalent to scientific realism and this is a holistic approach and in its development becomes a metaphysical and holistic view. This approach then becomes the metaphysical basis for systems thinking and metaphysics has the characteristic of thinking as a meta-science that separates scientific realism. Scientific realism is very contrary to metaphysics and rejects the

statement of holism as something unique and original and cannot be adapted to conventional scientific analysis.[1]

The Nature of System Thinking

The properties of System Thought relate to three philosophical problems namely what and how much is wanted to be known, and how much is the value of knowledge for humanity. The main core of system thinking is the basic embodiment of system thinking as a general system theory concept that is as an open systems theory. This concept has been widely used and has been applied to diverse subject areas. Through this study problems can be seen from the perspective of systems thinking and subject matter as an open system. The next step to better understanding about system thinking, then we will review the system as a science where the system as a science must meet the three basic properties as follows:

Ontology aspects of system thinking

According to Quine, ontology problems can be expressed in three words. What is there? To answer the fundamental question regarding this ontology problem, an expert said the answer to the Quine question was a system. This shows that each existence cannot stand alone but is related regularly. Henceforth the systems theorist has the view and judgment that each existence has an orderly and non-random order. Understanding the nature of Hollism will easily answer other questions that arise about what and how much we want to know about aspects of ontology. A number of questions about aspects of ontology ultimately answer as a whole what we want to know is the nature of being that exists in a regular way through the formation of systems.

The Epistemological Aspect of System Thinking

The epistemological platform of system thinking also bases on the premise of holism. At this level states that the research method must be based on the existence of all objects under study and not based on analytic or atomistic approaches. According to Whitehead a limited frame of mind in science is

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[1] Philips H. Coombs, *The Worl Crisis In Education*: *The View From Eighties*,(New York: Oxford University Press, 1985), p. 87

one of the hallmarks of analytical thinking. But this atomistic and analytical method is opposed to system thinking where experts write the motto " the whole is greater than the sum of its parts ". Karl Popper argued that the tendency to understand knowledge is not a system of concepts but rather a system of statements. While Sutherland argues that the ontological implications of system thinking provide a broader level of reasoning for system realities. But this is opposed by Bertalanfy that the problems and models of thinking contained in biological science, behavior and social science must also be considered. Boulding's opinion on general systems theory is a framework of understanding that aims to complete the framework or system structure in which to hang the subject of certain problems in kohern and sequential knowledge.

Axiological Aspect of System Thought

In Beer's opinion the system is one form of the opponent's name from disorder. Meanwhile, according to Austin Warren's opinion, system theorists symbolize people who hate disorder. Systems theorists see the world in the form of thought. They say efforts must be made to put the world in orderly conditions. C.P. Snow in his book " *Two Cultures* " emphasizes that western society has become deeply divided and is polarizing into science and humanity. Meanwhile, according to Boulding as a whole the empirical world will be more interesting when in order. In this case system theorists are very much needed in planning efforts to put the world in order. This simply confirms that system theorists pay attention to future planning by redesigning existing systems into a more stable totality for human needs.[2]

System thinking can be defined as to thinking according to the characteristics of a system that include: (1) Having components; (2) The component is a component that is identified within a certain limitation; (3) These components work together with a certain pattern; (4) This pattern will produce a characteristic that is different from the simple

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[2] Arnold, *Peningkatan Mutu Pendidikan Melalui Workshop Guru,* (Padang: Univ. Andalas, 2008), p. 14

combination of its components; (5) The system has its purpose; (6) The pattern of component interactions was carried out to achieve the goal.

The research of general system, as we know, is activity to improve the theory of general system. It is basically a logic of systems that gives an apriory framework to be applied for various scientific researches and fields. The direction of systems movement is about the aplication of logic of systems. This logic of system can be applied immediately on a scientific research, e.g. approach of systems of marketing theory. In this application, marketing theory applies holism concept to explain the interrelation between components. There is nothing new in the sense of theory, but the explanation of its theory become more well-oredered when it presented in the systems framework. Almost all of social sciences can use the aplication of systems logic in explaining and displaying their theory well-ordered. This sort of aplicatiion will be named system approach, which can be referred as the aplication of systems logic in the scientific research. The approach of system doesn't produce any problem solving. On the other hand, system analysis can solve the problem, by choosing the best action. In this case, as we will explain later, system analysis has predictive value.

D. C. Philips sharply criticizes Philips H. Coombs' book entitled *The World Educational Crisis: A System Analysis,*[3] as an analysis aplication prototype which doesn't produce any solution. Actually, Coombs applies system approach on his analysis, as he used system logic in explaining and displaying the interrelation between components of educational problems. In this viewpoint, *The World Educational Crisis* is a book is unique of its kind. However, misusing term of system analysis, not system approach, made this book the center of controversy.[4] System analysis and operation research can be categorized as research methods. Method, as defined by Paul Tillich, is sytematical way for doing something, especially in

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[3] Philips H. Coomb, *The World Educational Crisis,* p. 122

[4] Ibid., p. 167

the matter of acquiring knowledge. Method is related to the techniques, in this case, we can imagine method is inquiry strategy, and techniques is its tactics. Technique, according to Abraham Kaplan, is a special procedure used in a particular science, specifically links of inquiry in that science. System analysis and operations research as investigation methods related to several techniques. system analysis used analytical techniques, cost benefits, and cost effectiveness. Operations research deals with game theory techniques, linear programming, queuing theory, and Monte Carlo simulations. These techniques are nothing new at all. The cost benefit analysis technique which is hailed as "one of the most original breakthrough writings in the entire history of economics was introduced by Dupuit Seawal in 1844. The theory of queuing was developed by Johansen in 1907. These techniques were placed under the umbrella of systemic thinking, not based on their origin but on their connection to specific methods developed under the influence of the system concept. Of course there are also new techniques launched by 'thinking' such as PERT and CPM. even new scientific disciplines appear under the banner of holism. Cybernetics was invented by Norbert Wiener in 1984. In the same year, Claude Shanon published an article entitled A Mathematical Theory of Communication which marked the beginning of information theory.[5]

PPBS (Planning Programing Budgeting System) is the application of system analysts to modern management. The subject of PBBS is the field of management, specifically regarding the functions of planning, programming and budgeting. The method of inquiry in this case is system analysis, and under the umbrella of system thinking, PBBS also applies a system approach. Planning, programming and budgeting functions seen under the insight of this system, so that it becomes interrelated and forms an integrated system. The typology of system thinking that is being revealed is

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[5] Harman G., *Reassesing Research in The Politic of Education In Education perspective* (Dept. of Ed.: University of Western Australia, 1980), p. 241

incomplete. It is not intended as a list, but rather gives a framework, which members of a given set of categories, from which our nomenclature can be placed. At least, it intends to clarify the differences between the system approach, system analysis, cost effectiveness analysis, cost benefit analysis, PPBS, and so on. In the process, much debate was addressed to the General Theory System. a theory in the field of science can be defined as "a collection of interconnected ideas, propositions that provide a systematic description of phenomena, with interrelated variables.[6]

Discussion

Formal education is education that held in schools in general. Formal education is a systematic, structured, multilevel activity, ranging from basic education, secondary education, to higher education, or equivalent, including in it are academic-oriented and general-oriented learning activities, special programs, and professional trainings, which are carried out on an ongoing basis. Informal education is a process that everyone gains values, attitudes, skills and knowledge from everyday life experiences, throughout their life. Non formal education is every organized and systematic activity, outside the established schooling system, which is carried out independently. Non formal education is also important part of broader activities, which are intentionally carried out to provide specific learners related to finding their learning objectives. The three definitions above can be used to differentiate educational programs that are included in each educational lines. Based on those definitions, it is clear to say that non-formal education is not synonymous with both formal education and informal education. (a) Formal Education. It is an education held in schools in general. This education lines has clear levels of education, ranging from basic education, secondary education, to higher education. (b) Non-formal education. Most widely available at an early age, as well as basic education, is the TPA, or Al-Qur'an Education Park,

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[6] Philips H. Comb., *ibid.* p. 98

which is widely available in every mosque, and Sunday School which is found in all churches. In addition, there are also various courses, including music courses, sewing courses and so on.[7] (c) Informal Education. Informal education is educational line of family and its circle in the form of independent learning activities carried out consciously and responsibly.

The three definitions above can be used to differentiate educational programs that are included in each of these educational lines. As material for analyzing various educational programs, the three educational constraints above, need to be clarified again with criteria that can distinguish between education programs that are non-formal and education programs that are informal and formal. The difference between education in which informal and informal programs can be stated as follows: "Non-formal education programs have objectives and activities that are organized, held in the community and institutions, to serve the special learning needs of students. Whereas informal education programs are not directed to serve the needs of organized learning. This educational activity is more general, runs by itself, takes place mainly in the family environment, as well as through mass media, playgrounds, and so forth. If activities that include education which are informal programs are directed to achieve certain learning objectives, then these activities are categorized both in education programs that are non-formal as well as education in formal programs. Kleis gives a general limitation that education is a number of experiences that with that experience, a person or group of people can understand something that they did not previously understand The experience occurs because of the interaction between a person or group with their environment. The interaction causes the process of change (learning) in humans. And subsequently the process of change, results in development for the life of a person or group in their environment. The learning process will result in changes in the cognitive domain (reasoning,

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[7] Sahron Lubis, *Inovasi Pendidikan Dalam Membangun Kualitas makro dan Mikro* (Padang: Padang State University, 2009), h. 67

interpretation of understanding, and application of information), increased competence (intellectual and social skills), and conscious selection and acceptance of values, attitudes, appreciation and feelings, and willingness to act or respond a stimulation. The process of change can occur intentionally or unintentionally.

Another view of education was expressed by Axiin. He made a classification of activity programs that were included in formal, non-formal and informal education, using criteria of the presence or absence of intentions of the two communicating sides, viz. the educators (learning resources or facilitators) and learners (students or learning citizens). We can know that opinion with intentions from both sides in learning process are the main characteristics of school education and non-school education. Non-school education and school education have the same general characteristics, i.e. the existence of deliberated and organized activities. And both are subsystems of national education. By comparing the characteristics of school education with the characteristics of non-school education as an illustration, on one hand, school education has sequential programs for each type and level of education and can be applied uniformly in all places that have the same conditions. On the other hand, non-school education has a program that is not always strict in its program implementation. School education programs have a strict uniformity level, while non-school education programs are varied and more flexible.

The role and function of Macro Education in Society

Most modern societies, view educational institutions as a key role in achieving social objectives. The Government along with parents has provided the education budget needed to expand social development and nation development, to maintain traditional values in the form of noble values that must be preserved such as respect for parents and for leaders; the obligation to comply with applied laws and norms; the soul of patriotism and so on.

Education is also expected to foster sense of devotion to the Almighty God, to increase political, economic, social and security defense developments. In short, education can be

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expected to develop children's insight into ideology, politics, economics, social, culture and security defense appropriately and correctly. In the next it will make progress to individual, communities and countries to achieve national development objectives. Talking about function and role of education in society, there are various opinions about it. Below are presented three opinions about the function of education in society. Wuradji (1988) said that education as a conservative institution has the following functions: (1) The function of socialization; (2) The function of social control; (3) The function of preserving community culture; (4) The function of workforce training and development; (5) The function of selection and allocation; (6) The function of education and social change; (7) The function of cultural reproduction; (8) The function of cultural diffusion; (9) The function of social improvement; and (10) The function of social modification.

Along with the advancement of society, cultural patterns become more complex and have differentiation between one group of people and another, between those held by one individual and another individual. In other words the community had social changes.

School is needed to create new cultural values (cultural reproduction). Based on the process of cultural reproduction, then the effort to educate children to love and respect the established social institutions and traditions, is the duty of the school. Included in these social institutions are family, religious institutions, government institutions and economic institutions. The beginning of children education period, is an important period for the formation and the development of adoption of these values. This adoption effort is done before the children have the ability to criticize and evaluate rationally.

Educational Problems at the Macro Level

Educational problems is meant with the problems faced by education. The educational problems according to Burlian Somad broadly include the following matters: The unclear educational objectives, misalignment curriculum, the absence of competent teaching staff, the wrong measurement, and non obvious foundation level of education. Because of educational

management is related to educational structuring, then based on the level, educational management can be categorized into: (1) Management of macro education (international/ national level); (2) Management of messo education (regional/regional level); (3) Management of micro education (local and institutional/institutional level).

In Indonesia, the obstacles in improving the quality of education are due to the disproportionate role of the school; inadequate planning and implementation; inappropriate management of the curriculum system, a non-conducive work environment, inadequate school hours, lack of resources and staff procurement; as well as uneven solutions offered for education quality improvement. It is important to develop the curriculum, including ways of presenting lessons and study systems in general; to procure basic textbooks for students, as well as primary and secondary school teacher manuals, vocational textbooks and techniques for schools that need them, and library books in various fields of study in higher education. It is necessary to carry out activities to improve the quality of teachers, such as the presence of teacher discipline, teacher meetings to improve the teaching and learning process; improving the professionalism of teachers; attending educational courses to improve teachers' insights and knowledge; holding workshops to improve the quality of life and the quality of work.

The low prosperity of teachers also played a role in the low quality of Indonesian education, the proof of the FGII survey (Indonesian Independent Teachers Federation) in mid-2005. The low income of teachers surely can not meet the needs of the family, as a consequence many teachers do part timer work. There are those who teach again at other schools, give tutoring in the afternoon, become motorcycle taxi drivers, boiled noodle sellers, book sellers, mobile phone credit sellers, and so on.[8] Since the presence of Law on Teachers and Lecturers Article 10 has provided a guarantee of living worthiness. Teachers and Lecturers will get adequate income.

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[8] Republika, July 13, 2009

However, another problem that arises is the disparity in welfare of private and public teachers. We can see in the private education environment, the ideal level of welfare is still difficult to reach. The implication on the performance carried out certainly in the implementation of the educational process, such as teachers have not met the quality standards of National Education, even teachers who teach not in their areas of expertise.

Teachers as education personnel have a central role in administering an education system. By becoming a teacher, someone expects to be able to obtain adequate compensation for the necessities of life. In motivation theory, the provision of appropriate rewards and punishments, can affect the performance and quality of work.

Qualitatif Change and Qualitatif Dimension

The reformastion of education in Indonesia has taken place and repeated several times (at least six to seven times). The reformation of education focuses more on reforming *'cars'* (curriculum, teaching materials, evaluation systems, repairing and procuring buildings and tools), then training the *'driver'* (education personnel and administrative staff), and the last is *'Passengers'* (students, parents, and graduates).

Something which is less attention about it in educational practices, is about roads and the environment that is passed by cars (environment, support of all parties including political support for education). There is an idiom says: "more often the journey, is more important than the destination" which means, in many ways, experience on the road is more important than the destination itself. In relation to the destination (educational objectives, school objectives, class and learning objectives) there are still many drivers who do not know where the car and passengers will be taken. Even worse, the passengers themselves are not accustomed to convey their intentions and objectives, because for decades they have been accustomed to saying "it's up to the car makers and drivers" These passengers are not conditioned to express and explain their destination openly. So if: (1) Our (car) curriculum is not feasible; (2) The teacher (driver) is not qualified; (3) Students,

parents, graduates (passengers) have not played an active role; (4) Community, government (highway and surrounding nature) support is minimal; and (5) The vision, philosophy and objectives of education (the destination) have not yet been formulated and agreed upon by all parties.

Conclusion

Macro approaches in national education are both organizational empowerment and educational processes. organizations that carry out educational tasks must have autonomy in order to accommodate the needs of the community in various situations. The education process is carried out openly to increase input from the community. The implementation of education has been carried out through levels of authority that have been divided with large community participation. Education is organized by instilling a sense of excellence to face global challenges. It all needs educational innovation that is more focused on renewing curriculum, teaching materials, evaluation systems, repairing and procuring buildings, equipment, education staff, administrative staff, students, parents, and graduates.

Refernces

Agustiar Syah Nur, 2008. *Perbandingan Pendidikan 15 Negara,* (Universitas Negeri Padang, Sumatra Barat)

Arnold, 2008. *Peningkatan Mutu Pendidikan Melalui Workshop Guru,* (Universitas Negeri Padang, Sumatra Barat)

Alfian, 1978. *Pemikiran dan Perubahan Politik Indonesia,* (Jakarta: Gramedia)

Harman G., *Reassesing Research In The Politics of Education.,* (Dept. of Education: University of Western Australia)

Philips H. Coombs, 1985. *The World Crisis In Education: The View From Eighties,* (New York: Oxford University Press)

Sahron Lubis, 2009. *Inovasi Pendidikan Dalam Membangun Kualitas Makro dan Mikro,* (Universitas Padang: Sumatra Barat)