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A SYSTEM APPROACH TO LEARNING FOR SUSTAINABILITY AT SMA PABA BINJAI

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Abstract

This research aims to know (1) implementation of teaching through a systems approach within SMA PABA BINJAI, (2), the factors that affecting the learning achievements of students in SMA PABA BINJAI. This research uses qualitative descriptive approach. Data collection techniques used in this research is in-depth interviews, observation and documentation. The results of this research it can be concluded that learning can be viewed as a system as there are components that are often concerned in achieving educational goals effectively and efficiently.

Keywords: *Learning, system approach*



A. Introduction

Education in Indonesia is faced with quality challenges. This challenge cannot be negotiated so that the Indonesian nation can face such intense global competition. A quality nation will correlate positively with the improvement of Human Resources (HR). Increasing human resources can be done through improving the quality of educators or instructors such as through; education and training, giving an opportunity to continue to a higher level of education, or even through seminars, symposia, workshops, and others. Improving the quality of human resources will have implications for improving the quality of education.

There are a number of components that need to be considered in terms of improving the quality of the education process, namely the components of input, process, output, and feedback components. The input component concerns to students; process components concerns to teachers, learning materials, teaching methods, evaluation systems, supporting facilities, administrative systems and so on; output component with regard to how the students are after experiencing the process; and the feedback component related to how steps or efforts should be made after seeing output weaknesses.

In addition to the components above, education itself is faced with various problems, both micro and macro. The education problem has a close relationship, influencing and interdependence. The complexity of the problem of education cannot be separated from education as a system, which consists of various components that interact with each other in carrying out functions to achieve goals. So that the solution to the problem of education appropriately must be based on a scientific approach, especially with regard to education problems because scientific knowledge functions to describe, explain, predict and control education in the future. Therefore, to be able to find the right answer to a problem of the quality of education researchers try to examine the system approach in learning at school.



B. Method

This study uses a qualitative approach which means that all data components will be expressed in the form of words or sentences not with numbers.

C. Research Finding

The learning system used by teachers in SMA Paba Binjai can be said to be right (good) because the implementation of the learning program has met three criteria, namely having attraction, usability (effectiveness), and results of use (efficiency). This is evidenced by the increasing number of students for 2 consecutive years.

Teachers in SMA PABA Binjai also teach with a strong theoretical foundation as suggested by Reigeluth and Merrill so that learning is based on learning theory which he calls *preskriptif*, namely the theory that provides "prescriptions" in overcoming learning problems, where learning it must pay attention to the conditions, methods, and results variables.

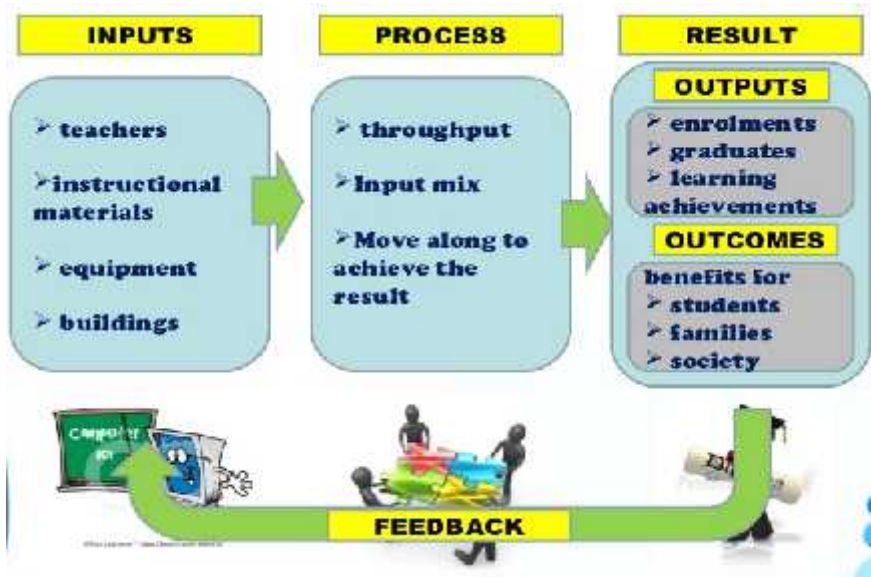
In accordance with the concept of systems thinking, the main step in examining quality problems must first be to look at the problem thoroughly by determining what factors are related to the problem. So, to improve student learning achievement, we first look at various factors that affect the learning achievement both in terms of the treatment given to the students concerned and in terms of conditions. Factors related to treatment as presented in the diagram above; (a) organizing teaching materials; (b) delivery strategy; and (c) management of activities.

The factors that influence conditions are the characteristics of students. Learning achievement is the result of a process. Take for example the treatment given to improve this learning achievement for example by giving X methods, and the conditions are high student motivation. If it turns out the results of the study show that learning achievement decreases, we cannot say that this is due to the method of delivering the wrong one, because according to the concept of system thinking, we must look at other factors as a whole that affect the learning achievement. So that it might be true that the treatment given using the X method is correct, but the organization of teaching materials is not good.



Conversely, if the results of this study say that learning achievement increases with the above treatment and conditions, we cannot conclude that the X method is best used in these conditions, because there may be other factors such as good teaching material, which results in improved performance. This is where the linkage of the system approach is needed to improve the quality of education.

This is where schools need to link the system approach to improving the quality of learning. To clarify the determination of systems thinking in improving the quality of school in SMA PABA Binjai is guided by the model below:



Thus, the learning system used should use appropriate learning strategies and techniques based on the right considerations. Learning strategy is an overall approach to learning in the form of general guidelines and frameworks of activities in achieving the general objectives of learning. While the learning technique is one component of the learning system that is chosen and implemented in achieving a goal, by combining



five components in it, in the form of people, messages, materials, tools, and environment. With the right learning strategies and techniques, the quality of the learning system and the quality of education will be improved.

E. Conclusion

The realization of the demands and the need for quality must refer to agreed quality standards. With reference to the quality or not of every education provider.

One component that also determines the quality of education is to see the extent to which the learning system is implemented. In improving the quality of learning related to thinking the system must pay attention to how the relationship between variables in the learning can be directed to solving learning problems, so that learning is achieved effectively and efficiently.

If the elements that are interrelated and dependent on them are all involved, both in the form of people, messages, materials, tools, and environment, then the learning system can be categorized as good / right or effective, which directly impacts and positively correlates in shaping and improving quality education

Bibliography

- Iriantara, Yosol. 2005. *Pendidikan Berbasis Mutu: Prinsip-prinsip Perumusan dan Tata Langkah Penerapan*. Yogyakarta. Pustaka Pelajar
- Miarso, Yusufhadi. 2005. *Menyemai Benih Teknologi Pendidikan*. Jakarta. Prenada Media
- Riyadi, Ali & Fahrussozi. 2006. *Total Quality in Education, Manajemen Mutu Pendidikan* Yogyakarta. IRCiSOD
- Suriasumantri, Jujun S. 2000. *System Thinking*. Bandung. Bhinacipta