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Preface

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Preface

The fourth industrial revolution (4.0) is marked by the advancement of technologies and powered by artificial intelligence which creates opportunities and challenges for education systems. University and vocational school graduates face a world transformed by technology which in turn transforms the workplace from task-based to human-centered characteristics. Certain skills such as critical thinking, emotional intelligence, problem solving, cognitive flexibility, and knowledge production are required. To address this demand education system should put revolutionary innovation in its agenda. Scholars, researchers, and practitioners are invited to share their ideas, research outcomes, and best practices about education, social sciences and humanities now and in the future in an The 1st International Conference on Education, Science and Technology (ICESTech) 2019.

ICESTech 2019 has been held on March, 13th - 16th 2019, at the Universitas Negeri Padang, West Sumatera, Indonesia. ICESTech 2019 is to bring together innovative academics and industrial experts in the field of education, science, and technology to a common forum. The primary goal of the conference is to promote research and developmental activities in education, education, science, and technology and another goal is to promote scientific information interchange between Scholars, researchers, students, and practitioners working all around the world.

ICESTech 2019 has received 312 papers and the papers come from both academia on the international flavor of this event in the topics of Industrial Revolution 4.0. Based on the peer review reports, 175 papers were accepted to be presented in ICESTech 2019 by the editors. All the accepted papers have been presented on the conference, mainly by oral presentations in three sessions: education, science, and technology.

We sincerely express our thanks to all the members ICESTech 2019. Thanks are also given to IOP JPCS for producing the proceeding.

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Success of Management by Objectives (MBO) Extracurricular Programs Based on Participation of School Committees

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Success of Management by Objectives (MBO) Extracurricular Programs Based on Participation of School Committees

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Abstract. This study aims to identify the importance of implementing Management by Objective (MBO) school extracurricular programs based on the participation of school committees in channeling students' talents and interests by acting right brain functions and developing students' creativity, as well as developing students' psychomotor domains. This study uses framing analysis and analysis of the MBO method, namely SMART. The result of framing analysis is that MBO will succeed, if there is a collaboration arrangement between the school and the school committee based on the school's vision, mission, indicators and objectives, as well as the motto of Jakarta 68 High School is Discipline, creation and achievement. SMART's analysis results are the implementation of extracurricular programs at State Senior High School 68 achieving positive results in developing students' creativity by using psychomotor aspects and the role of school committees based on five dimensions is specific, measurable, acceptable, reality, and time bond.

1. Introduction

Management By Objectives pioneered by “Peter F. Drucker” is a management process in the management of organizations for achieving goals by setting expected results. [1] Setting goals is used for the success of all activities carried out, Sherwood dan Page put forward that, “*MBO can make contributions to more effective management in public institutions*”. [2] The success of the MBO school program consists of seven fields, including student affairs, where in this field there is an extracurricular program influenced by the behavior of school organizations based on a clearly defined vision and mission to achieve the quality and effectiveness of school programs. According to opinion “Robbins dan Judge”, “*OB applies the knowledge gained about individuals, groups, and the effect of structure on behavior in order to make organizations work more effectively*”. [3]

Opinion of “Robbins and Judge”, explains that organizational behavior is a factor that influences the achievement of school goals in improving the quality of service for students and the quality of graduates. In Jakarta Public High School 68, principals and stakeholders including school committees must create a competitive base with other schools, not only knowledge-based (cognitive), but also student and affective and psychomotor collaboration related to skills for creativity development in acting right brain functions which is a new challenge for the education and learning system in schools and challenges to other educational institutions in various fields for the sustainability of school quality improvement.



Improving school quality requires the application of innovative management techniques, namely Management by Objectives (MBO) techniques involving teamwork. [4] In conducting extracurricular programs in schools teamwork is required with the school committee. The organization of the Jakarta 68 Public High School committee was formed by the decision of the Principal. In this decision, each executive carries out the roles, duties, and functions of the school committee administrators with applicable provisions and within a certain period of time in determining concrete and objective goals regarding the implementation of school extracurricular programs.

In the context of extracurricular programs, MBO establishes the goals, decisions and actions of the school committee, which leads to the development of talents and interests of students to help achieve the goals of education in non-academic fields and the ability to absorb graduates into state universities and career development. The research revealed by "Ona" is "These data indicate that students with technical talent have professional aspirations and personal goals determined by personal motives and purposes related to lifelong learning, desire to continue their studies after completing the current level, participation in various training courses, which ensure their professional expertise. All of these are key elements in strengthening talent". [5]

The results of the "Ona" study explained the importance of implementing extracurricular programs in schools to develop students' talents and interests as supporting factors besides cognitive aspects, as revealed by "Cullinane" that, "Psychomotor objective are as important to concentrate on as the Cognitive and Affective objectives with-in science education. Psychomotor skills are essential in science; and may include; adjusting a microscope preparing slides, manipulating apparatus and field work study". [6]

Data obtained that the State High School 68 Jakarta is a pilot public high school based in Central Jakarta which has become a school barometer in Jakarta and the first school to use 2013 Curriculum, as well as conducting a majors program since entering the 10th grade. has a commitment to make this school a school that has excellence in the fields of Science and Technology. This is based on the objective conditions of the environment, Human Resources and potential students.

Based on the data above, 68 State High Schools have not yet fully conducted extracurricular programs because extracurricular activities are under the auspices of the Intra-School Student Organization and focus more on the Science and Technology field or focus on cognitive aspects, even though the State 68 High School has education motto: Discipline, Creation, and Achievement.

2. Research Methods

The research method used is qualitative research with Framing analysis, namely (1) formulating the reality that occurs, (2) looking for ideal conditions, (3) determining the cause of the gap between reality and ideal conditions, (4) making a statement as a conclusion.

The design of the study uses the Management By Objectives method, the SMART method model proposed by "Peter F. Drucker" which is Specific, Measurable, Acceptable, Relevant, and Time Specific. [7]

3. Results And Discussion

3.1. Framing Analysis

Framing analysis is a method of presenting reality about an event by giving prominence to the psychomotor aspects of students. Prominence of certain aspects of the issue relates to writing facts. Framing analysis is used to examine the framing of the reality of extracurricular activities carried out by students. The framing is a process of forming students' creativity. So that in practice, framing analysis is widely used to view frames of information from achievements obtained by students. The results of framing analysis are shown in the following table:

Table 1. Data Analysis of the Framing Method

Reality	Ideal	Cause	Conclusion Statement
Students who are creative in extracurricular activities are students who have achievements (getting champions)	Creative or not creative students are not measured by the acquisition of champions	Perception from the community states that student creativity is measured by the acquisition of champions	Create size aspects of creativity correctly and clearly
Students' ability to act after extracurricular training imitates training material	Time for student training in accordance with the extracurricular field	The trainer provides intensive coaching	Success Imitation of students about training materials requires cognitive aspects
The school committee supports students in developing student talents and interests	Students can develop their creativity	Students' ability to act is channeled	The role of the School Committee is very important for the success of the MBO extracurricular program

Based on the results of the analysis of the table above, the first conclusions statement about "make the measurement aspects of creativity correctly and clearly", provide information that students are not creative or not measured by winning championship in extracurricular program competitions, but seen from changes in student behavior after learning that students after graduating from school will be skilled in the work environment. This is according to the opinion of "Brunello and Schlotter", *"The interest of applied economists on the role played by non cognitive skills in schools and the labour market is rising and is mainly limited by the availability of relevant data"*. [8]

The second conclusion statement regarding the success of imitating students from training followed from extracurricular activities using psychomotor aspects requires knowledge to understand which is obtained from cognitive aspects. As expressed by "Butikoter and Peri" is *Improves our understanding of the channels through which cognitive and noncognitive skills affect an individual's economic success and, specifically, their income*". [9]

In the third conclusion statement regarding the role of the school committee is very important in the extracurricular program, with cooperation with the school in providing enthusiasm to students. This is in accordance with the opinion of "Drucker" that, "For the spirit of an organization is created from the top. If an organization is great in spirit, it is because the spirit of its top people is great". [10]

The results of the three conclusions in table 1 provide information that Management By Objectives will succeed, if there is a collaborative arrangement between the school and the school committee based on the school's vision, mission, indicators, and objectives, and the Jakarta 68th School High School motto namely Discipline, creation and achievements. As stated by "Drucker" in the research journal "Gazell" is "management by objectives" (MBO) – the collective setting of organizational goals, targets, and measurements. He delineated the facets of leadership – the setting of organizational direction, an emphasis on performance, and a concern for social effects. He analyzed the nature of decision making – the understanding of a need for a policy, constraints and compromises in policy making, implementation, and feedback". [11] As well as the need for the collaboration of the principal with the school committee team, as explained by "Morrison and Arthur", that "Collaborative leadership is increasingly cited as the key framework for leadership in the 21st century. Yet its meaning remains complex, contested and frequently school-centric". [12]

3.2. SMART Model Analysis of Peter F. Drucker

The application of MBO in schools is useful for increasing productivity which will affect school effectiveness. "Kiesling and Glenn Richey" suggest that, "*Knowledge retention and generation for the firm was given considerable importance in Drucker's research. Success between competitive firms is the result of differentiation*". [13] *To see MBO successfully, in this study using SMART analysis developed by "Peter F. Drucker" is specific, measurable, acceptable, realistic and time-bound. The results of the analysis are explained in the following table:*

Table 2. SMART analysis

Specific	The success of the MBO extracurricular program explains the ability of students about knowledge, values, attitudes and student achievement achieved
Measurable	The success of the MBO extracurricular program is in accordance with the target and the results measured.
Acceptable	The success of the MBO extracurricular program can be achieved in extracurricular activities using psychomotor aspects
Realistic	The success of the MBO extracurricular program is in accordance with the abilities of students who are desired and are real and relevant to their talents and interests
Time-bound	The success of the MBO extracurricular program in carrying out activities based on the time frame adjusted to the training schedule

The results of the above analysis, specifically explained that the achievement of specific objectives in the implementation of extracurricular programs has been achieved in terms of the achievements in various extracurricular competitions. Jakarta State Senior High School 68 has designed the MBO concept for performance assessment, MBO to integrate individuals with organizations, and MBO for long-term planning. [14] Measurable describes the success of MBO in accordance with the target and the results measured by establishing a management information system to monitor the achievement of goals. [15] Acceptable, the success of MBO can be achieved using psychomotor aspects, which are explained by "Sabina et al" is "*The psychomotricity approach represents the perspective of a process seen from the inside by the subject involved, who must clearly perceive the individual's physical, motor and psychic aspects as a unit*". [16] Realistic explains that extracurricular activities are real and relevant to students' talents and interests. "Neague" argues that, "*Psychomotor behavior of each individual evolves according to his endowment to aptitude, his level of physical and intellectual progress and the educational influences which has undergone throughout his childhood*". [17] Finally, the Time Bond dimension, describes the time frame made by the trainer and the training venue, so that with the time frame, it becomes regular extracurricular implementation. Based on the five MBO dimensions above, the implementation of extracurricular programs at State Senior High School 68 reached a positive target in developing students' creativity by using psychomotor aspects. Of course in the implementation of this extracurricular program, the school committee has an important role, because without a school committee the implementation of extracurricular programs is not fully implemented for all fields of extracurricular activities.

Another factor in organizing extracurricular programs related to the budget. The school does not all budget funds for activities, because the budgeted funds from the School Operational Assistance fund of 20% are insufficient. And agree with "Arnold", that "*Budgets are simultaneously used for both operative planning and performance evaluation*". [18] So the role of school committee participation is very beneficial towards extracurricular programs in setting goals and providing feedback on student achievement. This is in accordance with the opinion of "Harding and Hsiaw", is "*Utilities' interventions that include social comparisons to others' usage or social norms can meaningfully affect consumers' behavior*". [19]

Collaboration between school committees and other stakeholders in extracurricular programs results in increased knowledge, such as the opinion of "Lenson and Mills", "This empirical knowledge and the recommendations made can serve to enhance the design of future clinical placements, as well as inform curricula or future research". [20]

4. Conclusion

The implementation of extracurricular programs at State Senior High School 68 reached a positive target in developing students' creativity by using psychomotor aspects. The success of the MBO extracurricular program is based on the participation of the school committee, because without a school committee the implementation of extracurricular programs is not fully implemented for all fields of extracurricular activities. And related to the budget provided by schools from school operational assistance funds are not met. The success of this MBO was analyzed by framing analysis and SMART models pioneered by "Peter F. Drucker".

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