

# META ANALYSIS OF THE IMPLEMENTATION OF MOSSTON TEACHING STYLE AND METZLER INSTRUCTIONAL MODEL

By  
Soni Nopembri  
Department of Sport Education, Faculty of Sport Science  
Yogyakarta State University  
sons\_fikuny@yahoo.com

## ABSTRACT

This study aimed to compare the implementation of Mosston teaching style and Metzler instructional models based on research. This study used meta-analysis as a study of a number of research results in similar problems. The main instrument in this research is the researcher himself (Human Instrument) assisted with the documentation guidelines. Data collection technique uses documentary. The population in this study are all the documents of research results on teaching styles and learning models, such as: journal articles and research reports. Samples were taken by incidental sampling technique. Data were analyzed using quantitative and qualitative approaches. The study findings indicate that: (1) Mosston teaching styles and Metzler Instructional model studies has the same tendency in the component objectives, design, population/sample, and data collection techniques, (2) Mosston teaching styles and Metzler Instructional model has a different trend in the data analysis component, and research results, and (3) the tendency of Mosston teaching style and that of Metzler Instructional model are different of each other, although if analyzed further the Mosston Practice Style and the Metzler Tactical Games Model are actually interrelated.

Key words: Mosston Teaching Style, Metzler Instructional Model, Meta Analysis.

## INTRODUCTION

As one of the subjects in schools, physical education has a different learning approach from other subjects. Because of that, the development of psychomotor aspects is emphasized more than cognitive and affective aspects. In fact, the physical education learning does not only emphasize the psychomotor aspects, but also the cognitive and affective aspects simultaneously. The ICHPER-SD UNESCO (2000) stated that physical education and sport in schools should describe the discipline of knowledge, skills and behaviors, includin

psychomotor, cognitive, and affective domains. These demands lead to the necessity of learning approaches that could involve all aspects of education.

Learning is an integral part of education. Learning is very important presence in the efforts to achieve real educational purpose. In the learning process, there should be a relationship among creative, critical, and interactive activities that provides direction for the growth of creativity, critical thinking, and confidence. Physical education as an integral part of the educational in also involves a learning process (Bucher,1995). Physical education invites students to be able to develop their own skills, but it is a common reality that, in the field physical education turns to be a boring and tiring subject and is not in accordance with the basic concepts of physical education itself. Consequently, the benefit of physical education has not been achieved by the public. This due to some problems, one of which is revealed by Mahendra who states that teachers of physical education/sport do not teaches enough sportsmanship, discipline, team work, and moral (Pikiran Rakyat, Wednesday, February 1<sup>st</sup>, 2006).

The teaching of physical education has developed quite rapidly nowadays. Various thoughts and idea have arisen in order to make physical education more creative, attractive, and more importantly able to achieve the purpose of physical education itself. Growth and changes in educational goals will be followed by the goal of physical education. This will affect the development of physical education learning approach. This adjustment is necessary because educational goals will be achieved through the learning process.

Teaching in physical education, there is beginning itself and coined as one integral part of education. Physical education in the world as well as in Indonesia had developed in quite far its history-philosophy. However, today, there still exists a fairly hot debate about the background science and philosophy of physical education. In the United State of America, physical education has become a national program now because its benefits are considered superior, while in Indonesia, physical education is still seeking his identity although formally it has been included in the school curriculum. People often misunderstand the concept of physical education, sports, recreation, physical activity, and health so that physical education is still seen biased in the eyes of our society.

The development of physical education teaching-learning approach started from the Swedish and German gymnastics system. Both of the systems have adapted in physical education programs all over the world. The early system was more teacher-centered that resulted in the fact that students simply follow what is being done by teachers and students are expected to be able to master all materials. This occurred because at that time physical education still focused on in the gymnastics lesson materials. Along with the changes and development in teaching materials from the gym to exercise-based physical education, there appeared some methods of teaching (teaching methods) which are directly and formally very well in 1960s. Since then development of various new methods for teaching physical education varied in terms of teaching strategies, namely: task/station teaching, reflective teaching, partner teaching, team teaching, and inquiry-based teaching.

In 1966, Muska Mosston Spectrum introduces the learning style of teaching in physical education. The concept started from an emphasis on teacher-centered (both formal and indirect) style into an emphasis on student-centered (informal and indirect) style that is based on the control of decision making before, during and after class. It developed from the eight interrelated teaching styles into eleven interrelated teaching styles (Mosston, 1994). Currently Mosston spectrum of teaching styles are still widely used by physical education teachers in Indonesia. The trend is that Physical Education (PE) teachers can use multiple learning styles in each class. This trend is also resulting in less effective learning, because the use of different teaching styles at all times will reduce the real meaning of learning, because that teaching style is only used for one or a few short-term learning activities. More impact in the aspects of students are not thoroughly developed by the teaching style. Maybe it is just one style of pursuing, only emphasizing the development of psychomotor aspects, so that the course only focuses on skills development course, while other aspects, such as teamwork, sportsmanship, and decision making are left untouched.

In the 1980s, a new approach of other physical education learning was introduced. It was an Instructional model based on the views of learning that incorporated sustainable ideas from learning theory, the long-term learning goals, context, materials, classroom management, teaching and related strategies, the process of verification, and assessment of student learning. The model is designed to be used throughout the learning unit, including all functions of planning, design, implementation and assessment for that unit. In fact, it also includes the

various teaching methods, strategies or styles. This means that the Instructional model covers all aspects of the students' progress. So that, the development of cognitive, affective, and psychomotor aspects are simultaneously developed in the model. There are seven Instructional models that have been developed. In Indonesia, the Instructional model is still something new and need to be socialized to physical education teachers. The problem is that a change in curriculum requires teachers to make their own programs and curriculum models in accordance with the schools condition. Hence, they need to review and to understand more about instructional models as well as Mosston teaching styles that have already been developed before.

Physical education provides opportunities for students to engage directly in a variety of learning experiences through physical activity, play and sports activities which are carried out systematically. This learning experience aims to foster as well as establish a healthy and active lifestyle. Physical education is a medium to encourage the development of motoric skills, physical ability, knowledge and reasoning, appreciation of values (attitude-emotional-mental-social-spiritual), and habituation to lead the healthy lifestyles to stimulate ideal growth and balanced development.

The spectrum of teaching styles in physical education was introduced by Muska Mosston in 1966s in his book entitled "Teaching Physical Education". Mosston stated that different teaching styles conceptualized a shift from an emphasis on teacher-centered (direct and formal) to the emphasis on student-centered (indirect and informal). Teaching style spectrum consists of eight

interrelated teaching styles and have been developed further into eleven interrelated.

In the 1980s, Joyce and Well introduced the Model of Teaching which later became so called the Instructional Model. The model is defined as a plan or pattern that can be used to form the curriculum (long-term courses of studies), to design learning materials, and to guide learning in classrooms and other circumstances. The model is designed to be used throughout the learning unit and includes all the functions of planning, design, implementation and assessment for that unit. Metzler (2000: 13) suggests that the model for the planning, implementating, and assessing the learning process will provide us with the most effective ways to achieve balance in our learning objectives on the amount of substance present diversely for physical education programs in schools.

Morgan, Kingston, and Sproule (2005) conducted the research entitled “Effects of Different Teaching Styles on the Teacher Influences Behaviours that motivational Climate and Pupils' Motivation in Physical Education”. The research is to investigate the impact of different teaching styles in teaching behaviors that affect the state of students’ motivation and cognitive and affective responses in physical education. Griffin, Mitchell, and Oslin (1985) compared the approach with skill-based tactics game techniques (direct instruction) on the net games for middle school classroom. McPherson and French (1991) studied college tennis class to test the difference between tactics and approach to skill-based approach.

Mosston teaching style and Metzler Instructional models that was developed have already been widely used and elaborated by researchers of

physical education and sports in a variety of researches to prove the truth of both approaches. Studies conducted by lots of researchers of physical education in various countries around the world. Those researches, then, have different background problems with different research objectives, as well as different methods used and results obtained. Nevertheless, another research is still needed to study more deeply an analysis of the practical application of mapping the Mosston teaching style and Metzler Instructional models. This study will provide the gained knowledge to use and implementation of both approaches. The focus of the research is to map the various objective of researches that had been conducted previously, their research methods (design, population/sample, instruments, and analysis), research results, and trends of the style of teaching or learning models. Based on that, then this research question is "how is implementation of Mosston teaching style compare to Metzler Instructional model in physical education program?"

## **METHOD**

### **Research Design**

This study made use of a meta analysis. Meta-analysis can be interpreted simply as an analysis some of the analyses (Rosa Merryana A, 2006). Meta-analysis is a study of a number of research results in similar problems. In its development, meta-analysis as a research method is used to examine various issues/topics in different purposes. Meta-analysis is essentially a synthesis of topics drawn from several research reports. Based on the synthesis a conclusion

about the topic being researched is drawn. This study uses the results of similar researches as basic data in conducting the analysis and drawn conclusions.

### **Unit of Analysis**

The Unit of Analysis in this study are all the documents of the results of studies in teaching styles and Instructional models. The documents are written forms such as: journal articles and research reports. Samples were taken using incidental sampling technique. This is because the appropriate documents are directly used as samples. Based on the sampling technique, 30 researcher conducted between 2000 and 2008 about Mosston teaching styles and Metzler instructional model were obtained , consisting of 20 research on Mosston teaching style and 10 researches on Metzler Instructional model.

### **Instrument**

Documentation guidelines was used to collect the data concerning research results on Mosston teaching styles and Metzler Instructional models.

### **Data Analysis**

Data Analysis used the percentage of quantitative data analysis and qualitative data analysis for the data understanding. The qualitative data analysis was used for the narrative of the studies found.

## **FINDINGS AND DISCUSSION**

The results on the studies obtained on Mosston teaching styles show that there is a tendency that characterizes the components of research itself, as seen in Table 1.

**Table 1. Meta Analysis of Mosston Teaching Styles Study**

No.	Component	Mosston Teaching Style study
1	Purpose of Study	To examine impact (65 %), To increase learning process (15 %), To compare (10 %), To know correlation (5 %), To describe (5 %)
2	Research design	Eksperimental (70 %), Survey (10 %), R & D (5 %), Correlation (5 %), Comparative (5 %), CAR (5 %)
3	Population/sample	School Students (60 %), University students (25 %), Teachers (15 %)
4	Data collection technique	Test (55 %), Questionnaire (20 %), Observation (15 %), Interview (10 %)
5	Data Analysis	ANOVA (50 %), t-test (15 %), descriptive qualitative (15 %), descriptive, quantitative (10 %), ANACOVA (10 %).
6	Research Findings	Psychomotor (55%)
7	Tendency of teaching style or instructional model	Practice Style (19,23 %), Inclusion Style (16,67 %), Command Style (11,53 %), Guidance Discovery Style (11,53 %).

The results on the studies obtained on Metzler Instructional Model show that there is a tendency that characterizes the components of research itself, as seen in Table 2.

**Table 2. Meta Analysis of Metzler Instructional Models Study**

No.	Component	Metzler Instructional Model study
1	Purpose of Study	To examine impact (50 %), To describe (50 %).
2	Research design	Eksperimental (60 %), descriptive qualitative (30 %), CAR (10 %).
3	Population/sample	School Students (60 %), University Students (20 %), and Teachers (10 %), Athletes (10 %).
4	Data collection technique	Test (60 %), Interview (20 %), Triangulation (10 %), Questionnaire (10 %).
5	Data Analysis	Qualitative Descriptive Analysis (50 %), ANOVA (40 %), and t-test (10 %).
6	Research Findings	Cognitive (70 %)

7	Tendency of teaching style or instructional model	Tactical Games Model (87,5 %) and Sport Education Model (12,5 %).
---	---	---

Based on the results of comparative analysis of Mosston teaching styles and Metzler Instructional model study, as seen in Table 1 above, some discussions can be expressed as follows: (1) The aim of the research studies on Mosston teaching style is focused more on testing the impact/influence, whereas the study of instructional models does not only emphasize the testing of the impact/influence, but is also aimed to describe or draw the variables studied, (2) both of Mosston teaching style and Metzler instructional model study have a tendency to use experimental research designs, (3) Elementary and middle school students are the population examined by many research of Mosston teaching styles and Metzler instructional model, (4) the main data collection technique used in the studies of Mosston teaching style and Metzler instructional model is the test. Other data collection methods are observation, interview, and questionnaire, (5) The common data analysis technique used on Mosston teaching Style is ANOVA, whereas studies of instructional model uses Qualitative Descriptive Analysis. Apart from the two data analysis techniques, several are also used other data analysis techniques such as t-test, Quantitative Descriptive Analysis, and ANACOVA, (6) Research results obtained from the studies of Mosston teaching styles and Metzler Instructional model is more directed to develop aspects of research subjects (students). The studies of Mosston teaching styles are aimed more to develop the psychomotor aspects (such as: technical skills and play), whereas studies on Metzler instructional model are to develop cognitive aspects

(understanding). In addition, this study also found that teaching style and instructional model develops affective aspects (such as: attitude, motivation, and habits), (7) The studies on Mosston teaching style tend to observe the Practice Style, while the studies on instructional models tend to deal with the Tactical Games Model.

## **CONCLUSIONS AND SUGGESTION**

Based on the results of research and discussion, it can be concluded that (1) studies on Mosston teaching styles and Metzler instructional model has the same tendency in the component objectives, design, population/sample, and data collection methods/techniques, (2) studies on Mosston teaching styles and Metzler instructional model has a different trend in the data analysis and research results component, and (3) the tendency of Mosston teaching style and that of Metzler Instructional model are different of each other, although if analyzed further the Mosston Practice Style and the Metzler Tactical Games Model are actually interrelated.

## **REFERENCES**

- Bucher, C.A. (1995). *Foundation of Physical Education*. St. Louis. C.V. Mosby Company.
- Griffin, L., Oslin, J., & Mitchell, S. (1985). An Analysis of Two Instructional Approaches to Teaching Net Games. *Research Quarterly for Exercise and Sport*. 66 (suppl), A-64.
- Mahendra, Agus. (2006). *Belum terasa, manfaat pendidikan jasmani*. Pikiran Rakyat. Rabu, 01 Februari 2006.

- Mcperson, S. & French, K. (1991). Changes in Cognitive Strategy and Motor Skill in Tennis. *Journal of Sport and Exercise Psychology*. 13, 26-41.
- Metzler, Michael W. (2000). *Instructional Models for Physical Education*. Massachusetts: Allyn and Bacon, A Person Education Company.
- Morgan, Kevin., Kingston, Kieran., Sproule, John., (2005). *Effects of different teaching styles on the teacher behaviours that influence motivational climate and pupils' motivation in physical education*. *European Physical Education Review*, Vol. 11, No. 3, 257-285.
- Mosston, Muska and Ashworth, Sara. (1994). *Teaching Physical Education 4rt Ed*. New York: Macmillian College Publishing.
- Rink, J., French, K., & Graham, K. (1996). Implication for practice and research. In J. Rink, ed. Tactical and skill approaches to teaching sport and games. (pp. 490-502). *Monograph. Journal of Teaching in Physical Education*. 15 (4).
- Sugiyono. (2005). *Memahami Penelitian Kualitatif*. Bandung. ALFBETA.
- The International Council for Health, Physical Education, Recreation, Sport, and Dance (ICHPER–SD). (2000). United Nations Educational, Scientific, and Cultural Organization (UNESCO). *Standar Internasional Pendidikan Jasmani dan Olahraga bagi siswa sekolah*. Dokumen.
- Rosa Merriyana A. (2006). Meta Analisis Penelitian Alternatif bagi Guru. *Jurnal Pendidikan Penabur*. No.06/Th.V/Juni 2006.