

PROCEEDING

11th INTERNATIONAL ASAPE SYMPOSIUM
Friday - Sunday, 6th - 8th August, 2010
Sebelas Maret University, Solo
Central Java, Indonesia

Theme :
**Bridging Adapted Physical
Activity Towards
Millenium Development
Goals (MDGs)**



Directorate General
of Management for
Elementary and
Secondary Education



UNS
Sebelas Maret
University Surakarta
Indonesia



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Asian Society for
Adapted Physical
Education and Exercise

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Editor :

Drs. Gunarhadi, MA, Ph.D



Directorate General
of Management for
Elementary and
Secondary Education



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PREFACE

It is a great pleasure for the committee to be able to finish the proceeding of the 11 th International Symposium of Asian Society for Adapted Physical Education and Exercise (ASAPE). The Symposium was hosted by Sebelas Maret University Surakarta (UNS) as mandated by Indonesian Society for Adapted Physical Education and Exercise (ISAPE) in collaboration with Directorate of Management for Special School.

One of the important purposes of the 11th ASAPE Symposium 2010 was to exchange information on special education issues among the country members of ASAPE through a forum to extract and select research-based articles into proceeding under the theme of "Bridging Adapted Physical Education and Exercise toward Millenium Development Goals (MDGs)". Articles on physical Education for students with special needs from psychological, educational, and medical perspectives were presented by both domestic and foreign symposium participants in a parallel session.

The committee realized the international symposium agenda would not have been a succes without meaningful contribution from various agents. For the reason, the committee was really indebted to those who participanted and involved in any respect of symposium sessions. Special thank was addressed to the Dean of Faculty Teacher Training and Education for the hard work in organizing the committee members to make the symposium a great success. No other expression was worthwhile but thanks and rewarding appreciation to all of the committee members from Faculty of Teacher Training and Education (FKIP UNS).

Last but not least, the committee expected that the symposium proceeding bring about the impact on the development and better service for persons with special needs in the field of physical education and exercise in particular.

Committee

OPENING ADDRESS



I would like to thank you all for coming and participating in the Asian Society for Adapted Physical Education & Exercise (ASAPE).

I am very delighted for the upcoming the 11th International Symposium of the ASAPE that will be held in Indonesia. It will be a large stepping stone towards the development of ASAPE.

Especially, the symposium is more meaningful because it is the second Symposium in Indonesia followed by the 8th International Symposium of the ASAPE which held in 2004.

Since 1986, Our ASAPE has been dramatically developed in both qualitative and quantitative ways that bring in worthy of much attention. There is no doubt that the unprecedented development of adapted physical activity could be possible because of the variety of research interests and efforts from all the members of ASAPE.

I hope that this symposium, with its theme of "Adaptive Physical Activity as a Bridge to Independence" will create a meaningful space wherein various academic inter-exchange and debate can take place. It is with much anticipation that this symposium will serve as a foundation towards growth in adapted physical activity in developing countries and provide opportunities for participating in future symposia. Also, kindly regard that the interest and flow of worldwide adapted physical activity marks great potential for Asia's respective future.

Finally, I would like to thank Mr. Nasichin the chairperson of the 11th ASAPE symposium Organizing Committee and each committee member for putting timeless endeavors for this Symposium. I am excited and confident that the 11th International Symposium of the ASAPE will be hosted successfully. I also would like to thank you for your presence here in Solo, for your hard work,

and your help, without which it would not have been possible for this Conference to be the success that we all recognize.

Thank you very much!

President of Asian Society for Adapted Physical Education & Exercise

Kyung-Sook Kim

WELCOME GREETING

For the International ASAPE Symposium

By Rector, UNS

Assalamu 'Alaikum Wr. Wb.

Dear Our Distinguished guests....

The Minister of National Education

The Director of Management for Basic and Secondary Schools

The President of ASAPE, Dr Kyung Sook Kim(Korea)

The Representatives of ASAPE member countries

The Dean of FKIP and the staff

The Education Authority, Central Java

The Honorable Keynote Speakers:

And all the Symposium Participants

Assalamu 'Alaikum Wr. Wb.

First of all, welcome to UNS and to Solo to all of you, the participants of this ASAPE Symposium, The Keynote speakers , and other ASAPE member countries; Korea, Japan, HongKong, China, Taiwan, Malaysia, and New Zealand. This morning, we are participating in the opening ceremony of International Symposium of ASAPE (Asian Society for Adapted Physical Exercise) held by ISAPE (Indonesian Society for Adapted Physical Exercise) in collaboration with UNS and Directorate of Management for Special Schools.

This eleventh biannual meeting of ASAPE 2010 coincides with the memorial for the 65th Anniversary of Indonesian Independence Day, 17 of August 1945. It is a moment where persons with disability are admitted over their struggle for better opportunity to live together in a more inclusive society.

As an educational institution, UNS (Sebelas Maret University) has been putting concerns and awareness on the adapted physical activity that is developed not only in the Faculty of Teacher Training and Education especially in Special Education and Physical Education Department, but also other faculties related to the needs of accessibility.

This University has become a welcoming campus for students with special needs. Every year there are always students with adapted physical accessibility.

From time to time, this campus has been attempting to develop the facilities so as to provide the comfort and convenience for all students. We realize it is not easy and it takes time to struggle for better service to fulfill what every student needs.

We hope this moment would not be only a dream. We believe this meaningful Symposium would inspire stronger commitment to all of us. We promise to penetrate long way ahead by making the impossibility become possible, and changing the facilities from difficulty to become accessible.

Finally, with the cohesive collaboration among countries, we could do more to promote better service for all us.

By "Bridging the Adapted Physical Education toward the Millennium Goals (MDGs), ASAPE would take bigger role in enhancing the equal rights for persons with special needs in more inclusive settings.

We hope in the coming years, such an International Symposium could serve meaningful contribution to the development of physical education for children with special needs .

That is all for now, and have a nice time of Symposium

Wass. 'Alaikum Wr. Wb.

Rector

Prof Dr. Muh. Syamsulhadi, dr Sp.Kj.(K)

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**Enhancing Academic Achievement of Adapted Physical Education and
Motivation of students with Special Needs in Inclusive Schools
through Quantum Teaching Model**

By :

Gunarhadi

Special Education Department, FKIP UNS

Abstract

This research aims to: (1) know the impact of Quantum Teaching Model on the psychological performance of Physical Education, (2) measure the impact of Quantum Teaching Strategy on the motivation to learn of students with special needs. This research was conducted to a group of students in 7 inclusive elementary schools in two sub-districts Boyolali assigned in cluster random sampling. Quasi experiment was applied for 72 fourth graders representing both experiment and control groups. The data was analyzed by means of T-T-Test to compare the learning achievement and the degree of motivation before and after treatment, between both experiment and control groups.

The research concluded that: (1) Quantum Teaching Model gave significant impact of the student learning achievement, (2) Quantum Teaching Model improved the degree of motivation to learn.

Key words: *Quantum teaching, academic achievement, and motivation.*

INTRODUCTION

Basically, inclusive education refers to education that responds to the unique needs of individuals in regular classes. This concept is beginning from the changing attitude and awareness toward education for all that has taken place since the last few decades. Responding to children with special needs is considered the most significant consequence of change in special education (Shaeffer, 2005). In most cases, students with special needs mainstreamed in regular schools confronted many psychological problems related to the handicapping conditions. Such problems cover motivation and self-esteem problems

Inclusive schools are common places for students with low self-esteem. An inclusive school refers to a school that educate all children in the same class or schools (LaRocque, & Darling, 2008). Currently, many children with disability spend the majority of day in inclusive settings. They have the same opportunity to learn together with other students. Such students with special needs may have learning problems due to their condition. Self-esteem is also one of many problems the students may have. To identify students who have learning problems, assessment is carried out. Assessment according to Wehman and Mc Laughlin (2002) is a process to identify and understand the performance of individual children in the neighborhood. The process of identification is done by means of academic assessment tests administered periodically. Assessment can be extracted from two points of view; motivation and self-esteem. They are likely to be the causes of academic achievement of Physical Education due to their inadequate adjustment. These three causes of learning barriers correspond to academic, behavioral, and physical problems.

Motivation is an internal strength that drives someone to do something to achieve the objective. Epstein and Rogers (2001) define that motivation refers to a force that energizes, sustains, and directs behavior toward a goal. This definition is the same as raised by Raffini (1996) revealing that motivation is also a strength that maintains the internal power hidden beyond the manifested behaviors. It means to say, the stronger the desire, the stronger the intensity of behaviors appears. On the other way, the lower the desire someone has, the lower the spirit and strength will be to achieve that desire.

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Motivation is always forced by the goal. The goal is believed to have a value that can satisfy the desire or the appeal of need. The drive to realize the goal can be both internal and external. It means to say that motivation can be either intrinsic or extrinsic or both of them

In relation to learning, motivation can move from the motif which also serves as a hidden goal, or the so-called 'intrinsic motivation'. Motivation can also move because of things outside the person, or is called 'extrinsic motivation'. According to Maehr, (1983); motif that is underlying someone's learning behavior may both be intrinsic and extrinsic. Intrinsic goal, according to the opinion, is related to the task, as for example, learning to understand the content, and tasks that are associated with someone's ego; like competing with a classmate, or showing better than other people. Hence, intrinsic motivation to learn is the tendency of students to find value of learning and the benefits from the learning activities. In other words, intrinsic motivation is a desire to do something for the sake of oneself. Meanwhile, extrinsic motivation is a desire to do something in a way to achieve that goal outside oneself (Epstein & Rogers, 2001).

The barrier of motivation is undergone moderately by students with special needs in Physical Education. This is understood, because of their limitations. The students feel disturbed by their perception of different identity constructed through external labeling form of interaction with the environment. As internal self-reflection, labeling will disturb the feeling of self-confidence, and accordingly reduces their psychological value and commitment to academic and non academic performance (Carlock, 1999). Students with physical barriers in term of vision or hearing, for example, will feel uneasy with their identity themselves, awkward and feeling less freedom in interaction with other people. More miserably, all these feelings may also cause a sense of doubt on the success in coping with both the academic and social challenges. For children who have hearing impairment, the impact of the esteem is very clear when they find it difficult to communicate due to the language barriers. The occurrence of miscommunication often causes awkward behavior, fear, worries, and skeptics from other people (Hallahan & Kauffman, 2003).

Conventionally, the evidence shows most teachers could not meet the requirement of the expected profiles. Buchori (2007) comments that more teachers teach mainly by transferring the materials listed in the curriculum rather than those guiding the students to learn how to learn. Since this conventional model of teaching holds the belief that teacher is more knowledgeable and in control of the students, the instruction does not give naturally develop the students' creativity. Such a strategy of instruction does not assure the quality of education. Particularly to those students with diversity, teachers' dry attention and limited understanding on their individual needs are typical happening during the instructional process. Sandkull and Heijnen (2005) describes that many schools do not provide equal education for all students. As a result, many students are becoming maladaptive, underachievers, low self-esteem, and dropped-out accordingly.

Those underachievers indicated by learning problems retaining in schools more often than not experience low motivation. Many students are characterized by poor personal efficacy related to their confidence on ability to think, consider, choose, and make decisions. In other ways, they can show low confidence of self-respect on their own and as well as from other persons' perception (Brandon, 1992). They imply that students with high motivation and self-esteem show higher performance in schools. Conversely, students with low motivation have a worse performance in daily activities and are estimated to have the prospects of low performance in the future.

The instructional strategy for Physical Education does not fully reflect the creative development of the students as it is expected in the innovative teaching strategy. Permanent sequence of physical activity, discrete learning activity, in classroom-teaching activities with inadequate fun learning creativity, and teacher's concentration to the achieving students characterize the conventional way of teaching. Students with special needs particularly those with motor problems due to their handicapping conditions do not get adequate social learning experience from the physical education. Evidently, the academic achievements on this subject matter in the inclusive schools do not reflect high level of physical development. Such conditions, accordingly, hinder the students' motivation, fun learning, and self-esteem. To promote their academic

achievement as well as motivation, it is necessary to introduce an innovative teaching strategy in physical education.

Quantum teaching begins with a strong belief as a foundation that: all people can learn, people learn differently, and learning is effective when it is joyful, engaging, and challenging (Bultzin, 2005). The similar beliefs and theories originally adopted from Lozanov (1978) are also taken into account of the birth of Quantum teaching and learning. These beliefs include the following; 1). Learning is dual-planned or paraconscious. It means learning takes place in both conscious and subconscious mind. 2). Everything makes a suggestion, either consciously or subconsciously. A student, for instance, may be consciously listening to the teacher, subconsciously, his mind is aware of peripherals, such noises in the room, 3). There is no single stimulus. It means everything is perceived in context, 4). Everything is constantly being processed through reasoning associations, 5). There is no neutral: only positive or negative. Everything gives impact. It implies that teachers need to make concerted efforts to create as many positive things as possible and to create a comfortable, safe, and fun learning environment (DePorter and Hernacki, 2002). All these beliefs serve as a foundation to accelerate the learning. Such beliefs are assumed to result in students' effective learning when the teachers hold the responsibility for their tasks dedicated to the integrity, high commitment, and ownership.

Quantum teaching for Physical Education combines two elements of strategy; the context and content elements. The context element is to orchestrate the atmosphere, foundation, environment, and adaptive learning (DePorter and Hernacki, 2002). Quantum teaching strategy emphasizes the importance of individual adjustment to the learning environment which is safe, comfortable, and fun to learn as it is arranged and spelled in the lesson plan. The importance of design is intended to prepare students to achieve success through a strategy. Strategies include the techniques and other attempts to bridge the gap between the teaching material and the knowledge the students already have.

The content element includes prime facilitation of content or material. DePorter and Hernacki (2002) adapted 5 steps of teaching utilized in this research of the

experiment. The first step is "lead-in activity" which means to capture the interest, curiosity, and attention of the students. The second step is "exploration" which means stimulating the nature of the brain. Through exploration, students could better maintain long-term memory rather than reading or listening to information. Such an activity is usually followed by discussion, verification, and finally ended with the "naming" concept or discovery where students draw the conclusion from the information they should learn. The further step is to "repeat". This activity allows the students to show off their capability on the topic they learn through practice and demonstration. To empower the students to process their new content through practice and demonstration is followed by reflection and repetition. These reflection and repetition are believed to strengthen the nerve connection as to master the content learned. The last step is to "reinforce". This step is to encourage the whole class to respect and appreciate those who have finished the tasks successfully. Reinforcement in the form of reward gives impression of happy ending to light new energy for the upcoming learning occasion.

METHODS

The research was the quasi-experiment with the "Posttests Only with Experimental and Control Group Design" as to investigate the causal relationship between two groups in which the independent variable could not be controlled by an extraneous factor (Sekaran, 2003). The research compared the effect of independent variables of Quantum Teaching Strategy and Conventional teaching Strategy on the academic achievements as well as the psychological trait of motivation. To maintain the internal validity of the effects obtained from the treatment of the experiment, cautions were given on the extraneous variables. The internal threats such as sample selection bias, history, instrumentation, maturity, mortality, and regression were taken for granted.

The sample in this research was of two different intact groups 74 students of the sixth grade in two different elementary schools. Each group consisted of 37 students representing the experiment and the control groups. For such an experiment, it was required that the academic and non-academic performance of these two groups be equal. Prior to the intervention of Quantum Teaching Strategy, therefore, T-Test was applied to

measure the academic level of achievements on Bahasa Indonesia and Science as well as the psychological trait of Self-esteem.

T-test was utilized to measure the differences of results of academic achievements of Physical Education and the degree of motivation between the experiment and control groups.

RESULTS AND DISCUSSION

To measure the different impact between Quantum Teaching Strategy and Conventional Teaching Strategy on the academic achievements, it is necessary to show the baseline of mean scores of the academic achievement of physical education, motivation to learn, and self-esteem in both the experiment and control groups. Baseline scores were the ones obtained by the students in both groups before the treatment of Quantum Teaching Strategy on Physical Education. The results from the T-Test were as shown on the following table.

Table 1: *T-Test Analysis between Experiment and Control Groups before Treatment of Quantum Teaching Strategy.*

Achievement Group	N	Mean	StDev	t	Sign.
Physical Educ.Experiment	37	6.17	1.67	-0.87	0.39*
Physical Educ.Control	37	6.39	0.63		

Note: *p > 0.05

From the table, it showed that the significant level for Bahasa Indonesia was 0.39 > 0.05, and 0.25 > 0.05 for Science. It meant there was no significant difference between the experiment and control groups in term of the academic achievement of Bahasa Indonesia and Science before the treatment of Quantum Teaching Strategy.

Table 2: *T-Test Analysis between Experiment and Control Groups after Treatment of Quantum Teaching Strategy.*

Achievement Group	N	Mean	StDev	t	Sign.
Physical Educ.Experiment	37	8.00	1.17	3.47	0.001*
Physical Educ.Control	37	7.14	0.79		

Note: * $p < 0.05$

When compared to table 1, the mean scores showed the improvements from 6.17 to 8.00 for Physical Education showed significant impact of Quantum Teaching Strategy on this subject since the significant level was $0.001 < 0.05$ and $0.001 < 0.05$. It meant there was significant difference between the experiment and control groups in term of the academic achievement of Physical Education after the treatment of Quantum Teaching Strategy.

The reason for the improvement of academic achievement through Quantum Teaching Strategy commenced from the belief that all students could learn (Carnell, 2002). Students were regarded as potential individuals who could utilize their different meta-learning strategy to make sense of their own experience. Additionally, it was believed students learned better when it was joyful, engaging, and challenging (Butzin, 2005). This belief was advocated in tenets of the Quantum Teaching Strategy where the students' capability was flourished by discovery learning through interaction with the natural and artificial environment provided by the teachers. This fact was also supported by the a research conducted by DePorter (1992) showing the result that Quantum Teaching Strategy increased 73% on general academic values, 84% on self-esteem, and 81% on self-confidence.

Table 3: *T-Test Analysis between Experiment and Control Groups before Treatment of Quantum Teaching Strategy on Motivation.*

Motivation	Group	N	Mean
Physical Educ.	Experiment	37	68%
Physical Educ.	Control	37	68%

Table 4: *T-Test Analysis between Experiment and Control Groups after Treatment of Quantum Teaching Strategy on Motivation.*

Motivation	Group	N	Mean
Physical Educ.	Experiment	37	80%
Physical Educ.	Control	37	72%

From the above table, it shows that there was an increase of motivation between before and after Quantum Teaching Strategy in both Experiment and control groups. Before treatment students in both experiment and control groups shows similar degree of motivation (68% : 68%). On the other hand, after Quantum Teaching Strategy, the degree of motivation of students in experiment group increased 12% from 68% to 80%. Whilst, the students' motivation to learn in control group just increased 4% from 68% to 72%. It means students in experiment group had better motivation than those in control group. This result also shows that the previous research on the impact of Quantum Teaching Strategy on motivation Arni Arief Lawaka & Chaerrun Nisa (2002) and DeCharms (1984) were true. The students felt motivated because they were confronted by many kinds of social and competitive games Dweck, (2000).

CONCLUSION

Based on the result of the statistical analysis, the study concluded points. The first was that Quantum Teaching Strategy was more effective compared with the Conventional teaching Strategy to improve academic achievement of Physical Education. From the learning theory, Quantum Teaching Strategy was founded on the belief that students learn by utilizing their potentials through social interaction with the environment. By means of exploration, elaboration, and confirmation from the well arranged environment, internalized meaningfully the learning materials that they improved their academic achievements accordingly. It proved that compared to Conventional Teaching Strategy, learning through Quantum Teaching students achieved better on this subject matter.

The second was that Quantum Teaching Strategy gave influence to the degree of students' motivation to learn. The statistical figure indicated that students were more motivated to join the physical education. By integrated physical education to other subject matter through games, students seemed to enjoy the activities. More extremely, some students felt better joy of the lesson rather than other subject matters. By Quantum Teaching Strategy, students felt the joy of success through interaction with other friends. In term of the confidence, students in experiment group showed better confidence since they felt the joy of learning in Physical Education, for instance, through games and other joyful social interaction with peers in the competitive way of learning (Carlock, 1999).

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