

UTILIZATION OF INFORMATION TECHNOLOGY IN  
PHYSICAL EDUCATION

By

Banu Setyo Adi

PPSD FIP UNY

ABSTRACT

Information technology that functioning for information services to the community to enable the exchange of information without can be limited by space and time. This certainly would be very support of a discipline or an occupation that requires speed information access. Physical Education is an integral part of the education system that needs to be addressed by physical education teachers. A teacher is expected to have the ability to develop students. The problems that arise in the learning of physical education is not using information technology to the learning process and how to utilize information technology to teaching physical education.

Physical education is a process through physical activity, which is designed and arranged systematically, to stimulate growth and development, improve physical ability and physical skills, intelligence and character formation, and positive values and attitudes for every citizen in order to achieve educational goals. one of the benefits of physical education is to meet the needs of children will move, introducing children to the environment and the potential for themselves, instilling the basics of useful skills, channeling excess energy, is an educational process simultaneously both physically, mentally and emotionally. While information technology can be interpreted as information technology that is able to support the acceleration and improve the quality of information, and acceleration of information flow is no longer limited by space and time. When associated with the sport then the relationship can be drawn as follows: (1) Utilization of information technology is required of teachers in supporting the process of teaching and learning activities, (2) Teachers can utilize the information as students learning tasks, and (3) audio-visual information can be used as a means of giving a demonstration to the students about the movements in sports.

The advantage to use information technology tools for teachers of physical education is to visualize the correct movement technique, considering the condition of an aging teacher so that the demonstrations have decreased.

Key words: information technology, physical education

## INTRODUCTION

Nowadays more perceived importance of information technology advantage as a tool of information services for the community to support the implementation of government programs. The government however can not belittle information technology existence because information technology is the most effective tool to deliver or disseminate government policies in various fields. Information technology that functioning for information services to the community to enable the exchange of information fastly without can be limited by space and time. This certainly would be very supportive of a discipline or an occupation that requires speed information access.

The development of learning in line with advances in technology, Physical Education is an integral part of the education system needs to be addressed by physical education teachers. Actually sports have been long familiar with the technology, because the sport has been always the object of information and communication technology. Clear evidence is the presence of image/movie document about the sport that is often displayed by both print and electronic media. Physical Education Teachers also have to use information technology and communication tools to visualize motion in conducting activities. The unceasing dissemination of ICT-based learning is an effort to improve the quality and variations in implementing the learning, however learning activities in physical education remained oriented practice activities.

A teacher is expected to have the ability to develop students. Teachers are also expected to be versatile like singing, dancing, playing musical instruments, and able to give an example to students (Kamtini and Husni, 2005: 17). The role of teachers as educators (nurturer) are the roles associated with the tasks of giving aid and encouragement (supporters), the tasks of supervision (supervisors) as well as tasks related to discipline for children to be obedient to the rules school and the norms of living within the family or community. These tasks related to improving the growth and development of children to gain more experiences such as the use of motor physical activity. Children expect their teachers to be an example or model for him. Every teacher should provide the knowledge, skills and experience. Susan and Kay (2010) in an article which suggested that the teacher has several functions:

1. Assessment and Evaluation;
2. Educational and Instructional Strategies: Learning Environment;
3. Educational and Instructional Strategies: Accessing the General Curriculum;
4. Educational and Instructional Strategies: Teaching the Expanded Core Curriculum,
5. Guidance and Counseling;
6. Administration and Supervision;
7. School Community Relations.

The problems that arise in the learning of physical education is not using information technology to the learning process and how to utilize information technology to teaching physical education. The low interest in physical education teachers in utilizing information technology supported by he lack of ability to access information technology to support teaching and learning activities.

## UNDERSTANDING THE PHYSICAL EDUCATION

Physical education is a process through physical activity, which is designed and arranged systematically, to stimulate growth and development, and improve physical skills, intelligence and character formation, as well as positive values and attitudes for every citizen in order to achieve educational goals (Aip Syaifuddin and Muhadi, 1992: 4). JB Nash defines physical education is an aspect of educational process whole by using the / emphasis on physical activity that develops fitness, organ function, neuro-muscular control, strength, intellectual, and emotional control (in Victor G Simanjuntak, et al. 2008). Meanwhile, another meaning of physical education is the education process that involves interaction between the participants (child) students with an environment that is managed through physical activity in a systematic way towards the formation of a whole person (Toho C and Rush L, 1997:13). The definition of human being is a human being faithful and devoted to God Almighty and virtuous, has the knowledge and skills, physical and spiritual health, a stable and independent personality and a sense of social responsibility and nationalism. From the clear understanding of physical education that is contained in physical education benefits not only in physical form, but also way of thinking and social.

Physical element that develops can be seen from the more mature person's physical ability to do sports. Children who have a strong physical ability and he will likely have a positive thought pattern energetic and able to perform with optimal performance. While the mental element can be seen with the child's ability to control emotions when doing sports to applied into his daily life. For social elements can be

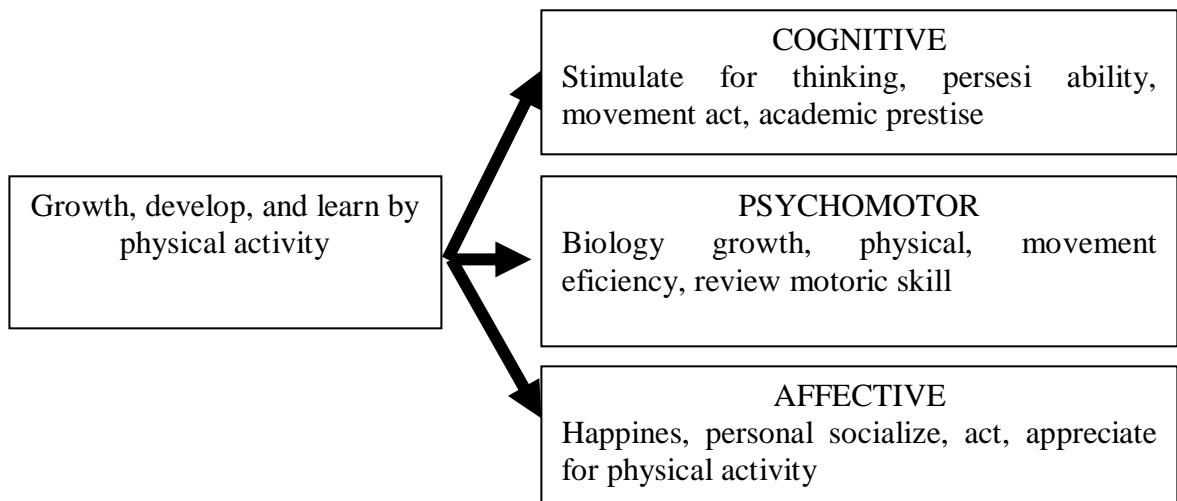
seen from the child's ability to interact with peers in sports games. Children will feel more mature, able to adapt to the peers of older material as well as younger ones. At the time of exercise, children will recognize the advantages and disadvantages of himself so he will not become haughty and children will recognize the advantages of friend and foe alike.

Debriefing of physical education of children is not enough just to rely on lectures given alone and only occasionally by a guest speaker, but should be included in regular training. Inclusion of child education physical education into the curriculum according to age groups. Development and manufacture of materials for training in the classroom. Preparation of guidelines for teachers and dissemination to all teachers. Coordination of activities and responsibilities specified as clear. Besides the inclusion of physical education in school curricula, schools should also provide an after hours of physical education lessons through extracurricular activities.

As one part of the element of education, physical education has a purpose in the establishment of child growth and development. The goal of physical education can be described as follows:

1. To believe in them self, develop memory power.
2. Associated with humanity, respect, friendship, cooperation, urbane sublime, appreciate family, and being democracy at home.
3. For economic efficiency
4. Dealing with the responsibilities as good citizens and social justice.

In line with the above goal, Gobbard, C., et al. (1987.5) describes the influence of physical activity (contained in the physical education) on the development of children like the picture below:



Establishment of a good affective highly visible in the physical education activities, such as students who have to maintain sportsmanship when playing, appreciate the advantages and disadvantages possessed friends or yourself, to be disciplined to keep the rules, honesty and so forth.

According to Agus Mahendra (<http://ahmesabe.wordpress.com/2008/10/13/falsafah-penjas/>) is generally one of the benefits of physical education are:

1. Meeting the needs of children will move

Physical education is indeed a world of children and in accordance with the needs of children. Inside, children can learn while excited by channeling his desire to move. The more satisfied the need for movement in periods of growth, the greater the benefits for the quality of growthitself.

2. Introduce children to the environment and the potential of them

Physical education is the time to 'do'. The children will prefer to 'do' something rather than just have to see or listen to others when they are learning. The atmosphere of freedom offered in the field or gym diminished because so long cooped up in between the boundaries of the classroom. This situation is really not in accordance with the encouragement of his instincts. By playing and moving children really learn about their potential and in this activity the children try to recognize the surrounding environment. The experts agree that this experience is important to stimulate intellectual growth and social relationships and even the development of self-esteem that became the basis of his personality later.

### 3. Embedding basic skills that are useful

The role of physical education in elementary school is quite unique, because it helped develop the basic skills necessary to master the various skills of children in later life. According to experts, the growth patterns of school-age children until late puberty or teen called slow-growth pattern. This pattern is the opposite of the pattern of rapid growth experienced by children when they were newborns until the age of 5 years. In this case the argument applies:

"... When entering a period of rapid growth, ability to learn new skills to run slowly. Conversely, in a period of slow growth, ability to learn skills to increase. "

Because at the elementary school age growth rate was slower than, then at these ages the opportunity to learn the motor skills of children are arriving at critical times. Consequently, the abandonment guidance during this very influence to the next child's development.

#### 4. Channel excessive energy

Children are beings who are in a period of excess energy. The advantage of this energy should be channeled so as not to disturb the mental balance and behavior of children. Immediately after the excess energy channeled, the child will regain her balance, because after the break, the child will return to renew and restore its optimum energy.

5. It is a simultaneous educational process both physically, mentally and emotionally. The correct physical education will provide a significant contribution towards children's education as a whole. Concrete results obtained from physical education is a complete development, covering aspects of physical, way of thinking, emotional, social and morality. No one if the experts believe that physical education is the most appropriate vehicle to "form a whole person."

#### THE MEANING OF INFORMATION TECHNOLOGY

Information is an abstract object that can be used to achieve positive goals and /or vice versa. Information can speed up or slow down decision-making. Information has the power, either build or destroy. In practice, the information can be presented in various forms of both verbal (oral), printed (printed), audio, or audio-visual motion, each of which has distinctive features, advantages and disadvantages, as the table below:



Caracter of Information		
Printed	Audio	AudioVisual
can be read, anywhere, any time can be read over and over again low-energy stimulation The processing can be mechanical, can be electrically relatively low cost.	1. Limited coverage 2. Can be heard when the broadcast 3. Can be heard again when played back. 4. Low-energy stimulation. 5. Electrical. 6. Relatively cheap.	1. Great coverage.- Can be heard and seen when broadcast. 2. Can be heard and seen again when played back. 3. Very high-energy stimulation. 4. Very expensive. 5. Great coverage, except for cinema.

Source: Miftahul Huda (<http://bank-ilmu.blogspot.com/2007/04/layanan-informasi-untuk-pemberdayaan.html>)

Really the meaning of information systems do not have to involve a computer, computer information systems that use so-called computer-based information systems (computer-based information system or CBIS), but in practice the system more frequently associated with the computer. Here are various definitions of information systems (<http://blog.re.or.id/concept-system-basis-information-system-definition-informasi.htm>):

1. Turban, McLean, and Wetherbe (1999). The information system is an information system that has the function of collecting, processing, storing, analyzing, and disseminating information for specific purposes.
2. Bodnar and Hopwood. The information system is a collection of hardware and software designed to transform data into useful information form.
3. Alter (1992). The information system is a combination of work procedures, information, people, and information technology organized to achieve objectives within a company.

Information technology can be defined as "information technology that is able to support the acceleration and improve the quality of information, and acceleration of information flow is no longer limited by space and time" (JB Wahyudi, 1990). "Information technology is the hardware is organizational, and continuing social

values with which individuals or public gathering, processing, and exchange information with individuals or other audiences (Rogers, 1986).

Based on some understanding of the above can be summarized by the simple fact that information technology is a set of facilities consisting of hardware and software which in practice is directed to support and improve the quality of information that is needed by every layer of society as a fast and quality. Because of this information technology, information that is in every place in the second the same can be monitored in other places though where it was in another hemisphere, or even in space though.

#### USE OF INFORMATION TECHNOLOGY IN SPORTS

Sports education can not be separated from the practice of fitness activities. At the time of conducting a practice teacher and student should know the basic techniques to advanced technical level. If a motion is not based with the right techniques, it will depat cause fatal accidents. Of course this is not desired by teachers and students. For that teachers are expected to provide examples of the right moves to be able to analyze the movement of the students. While students are expected to obtain information as possible before it performs the sports movement. Sports information in the Herbert Haag (1994: 63): "Sport information or information science and sports is on one side an applied part of information science and the other side a field of sport science theory."

Based on the definition of information and sports information can be concluded that sports information is a collection of information systems hardware and software

that has the function of collecting, processing, storing, analyzing, and disseminating information for specific purposes. When associated with the sport then the relationship can be drawn as follows:

1. Utilization of information technology is needed teachers in supporting the process of teaching and learning activities.
2. Teachers can use information as a student learning tasks.
3. Audio-visual information can be used as a means of giving a demonstration to the
4. students about the movements in sports.

## CONCLUSION

Information technology enabled information services to the community to enable the exchange of information fastly without can be limited by space and time. The development of learning in line with advances in technology, Physical Education is an integral part of the education system needs to be addressed by physical education teachers. The problems that arise in the learning of physical education on the use of information technology in learning to be missed if physical education teachers are able to follow the development of information systems. The advantage to use information technology tools for teachers of physical education is to visualize the correct movement technique, considering the condition of an aging teacher so that the demonstrations have decreased.

## REFERENCE

- Agus Mahendra. Falsafah Pendidikan Jasmani. <http://ahmesabe.wordpress.com/2008/10/13/falsafah-penjas/> didownload tanggal 29 Juli 2009 pukul 08.45 WIB.
- Aip Syarifuddin dan Muhadi. (1992). *Pendidikan Jasmani dan Kesehatan*. Jakarta: Departemen Pendidikan dan Kebudayaan.
- Gobard, C., dkk. 1987. *Physical Education for Children*. New Jersey: Prentice-Hall, Inc. Englewood Cliffs
- Haag Herbert. 1994. *Theoretical Foundation of Sport Science as a Scientific Discipline: Contribution to a Philosophy (Meta-Theory) of Sport Science*. Germany: Karl Hofmann GmbH & Co
- Kamtini dan Husni, W. T. 2005. *Bermain Melalui Gerak dan Lagu di Taman Kanak-Kanak*. Jakarta: DEPDIKNAS
- Miftahul Huda, 2007. <http://bank-ilmu.blogspot.com/2007/04/layanan-informasi-untuk-pemberdayaan.html> diakses tanggal 12 April 2011 pukul 20.45
- Rogers, M. Everett. 1986. *Communication Technology- The New Media in Society*. New York. The Free Press, A Division of Macmillan, Inc.,
- Spungin, Susan. J and Kay, A F. 2010. *The Role and Function of the Teacher of Students with Visual Impairments*. University of Northern Colorado
- Toho Cholik dan Rusli Lutan (1997) *Pendidikan Jasmani dan Kesehatan*. Jakarta: Departemen Pendidikan dan Kebudayaan.
- Victor G Simanjuntak (2008). *Pendidikan Jasmani dan Kesehatan*. Jakarta: Direktorat Jenderal Pendidikan Tinggi Departemen Pendidikan Nasional
- Wahyudi, J.B. 1992. *Teknologi Informasi dan Produksi*. Citra Bergerak, Jakarta, <http://blog.re.or.id/konsep-dasar-sistem-informasi-definisi-sistem-informasi.htm> diakses tanggal 12 April 2010 pukul 10.45