

The Influence of Multiple Intelligence Approach on the Physical Education Learning towards for Character Improvement

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Received: January 16, 2014 Accepted: February 20, 2014 Online Published: February 28, 2014

doi:10.5539/ass.v10n5p91

URL: <http://dx.doi.org/10.5539/ass.v10n5p91>

Abstract

This research is aimed to know the influence of the learning methods using the multiple intelligence approach towards the learning outcomes of early childhood students. This research uses the pre-experimental research design using static group comparison. The population was kindergarten children in Pasuruhan, Kediri, Blitar, Malang, Batu, Malang Region, consisted of 36 kindergarten schools, with the samples taken of 240 children from 12 kindergartens. The analysis uses one way ANOVA, with F value is set at the significant level $\alpha = 0.05$. Results show that learning methods using the multiple intelligence approach significantly influence ($F=3.818$, $p<0.05$) student's learning outcomes. Further analysis also show that there are significant influences on aspects of assesment of the learning outcomes on the areas of society development and environment ($F= 60.636$, $p<0.05$), creativity ($F=50.957$, $p<0.05$) and physical and health development ($F=51.979$, $p<0.05$).

Keywords: physical education, multiple intelligence, kindergarten schools, society development, creativity

1. Introduction

Teaching is an effort to create a situation and condition to stimulate children to learn. The effort has purpose to make children able to interact actively with the learning sources, teachers, media, and the environment, therefore it enables the potential of the children to appear during the learning process, finally the children can reach high self actualization levels.

Physical education (PE) cannot be separated from the National Education System, and it is an integral part of the National Education System. The success of physical education in schools will affect to the success of the National Education System. The physical education has an important role to develop a wholesome human being physically, mentally, socially and morally.

Many believes that if someone has high IQ, he or she will be successful in this life. However, in reality this may not be the case. It shows that IQ is not a warranty for someone's success, although IQ has an important role in someone's life, especially in the matter of knowledge development (cognitive). According to Gardner (2003) there are at least eight intelligence domains possessed by human being that can be developed since the early time i.e: (1) music, (2) body kinesthetic, (3) mathematics logic, (4) language, (5) spatial, (6) interpersonal, (7) intrapersonal and (8) naturalistic. Entirely the eight intelligences are called *Multiple Intellengences* (MI). Every one has these eight intelligences and every day he or she uses it in different combination and portion (Amstrong, 2003). The multiple intelligence theory of Gardner gives us the point of view of the complete student potential, therefore their multiple abilities that are neglected will be appreciated and developed as well.

Developing the multiple intelligence can be done early and one way to do it is through the education institution for the early childhood. The National Education System regulation no. 20, 2003 verse 28 about the education for earlychildhood states that early childhood education can be conducted through formal education at kindergarten and Islamic kindergarten, through informal education i.e: play group, Quranic Education classes and the family. This article discusses about physical education held in formal education namely kindergarten or Islamic kindergarten.

Early childhood are an important period for ability development. Erikson states that the age of 3-5 years is the golden period whereby the children are sensitive to their environment and absorbs all information around them and less learning stimulation during this age is a disadvantage (Erikson in the Ayahbunda magazine, 2000). That

opinion is strengthened by the researches done by various child psychologists. It is explained that the intellectual development of children happens maximally during early age, more or less 50% of the intelligence variabilities happen when they are at the age of four years old (Diknas, 2002). The above statements show that intelligence is determined during early childhood, therefore the stimulation given to the young children will determine the quality of the child in the future.

Physical education is given to the students at every level of education, starting from the basic level until university. Based on the curriculum used in schools, physical education in kindergarten is known as physical development whereby the subject /lesson given at this age is to develop the basic ability through physical activities. Although the name differs, theoretically, they have the same essence since both of them are a part of the education process directed to develop and increase the ability of the human being (physically, mentally, intellectually, emotionally and spiritually) through the media of the physical activities.

From the psychology paradigm, the word development refers to mental development, while in physical education it is viewed from a physical standpoint. In this article physical development refers to physical education because the general function of physical education is to support and increase the growth and the development of the students. (Drowatzky, 1984).

The physical education in early childhood education has the potential to develop the intelligence domain of children because physical education is an education done through physical activities, by using various activities in the forms of sport activities. Edward (1973) explained that the definition of sport begins from the wide definition including play, games and sport. The teaching characteristic in the early age is 'playing while learning' or 'learning while playing' (Diknas, 2004). Therefore it is only right if physical education is used as a media to develop intelligence of children.

2. Methodology

Pre-experimental statistic group comparison design is used for this study. The independent variables are the learning models of physical education of early childhood based on multiple intelligence and the learning model of the physical education of early childhood commonly done at school, while the dependant variables are the result of the students' learning measured from the aspects of: a. Moral Development, b. Language Skill, c. Society and environmental health, d. Knowledge, e. Creativity, and f. Physical Health.

Samples for this study were 240 kindergarten children and data were analyzed using one way ANOVA with the significant level set at $\alpha = 0.05$.

3. Result

3.1 The Influence of Learning Based on the Multiple Intelligence towards the Learning Outcomes of Early Childhood

The influence between learning models with the multiple intelligence approach and the learning model commonly done at school towards the learning outcomes of the early childhood is analyzed by using ANOVA is shown in Table 1.

Table 1. The influence of the multiple intelligence learning method approach towards the learning outcomes of early childhood

Tes	ANOVA				
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	164.506	1	164.506	3.718	.055
Within Groups	13893.835	314	44.248		
Total	14058.342	315			

Result showed that $F=3.718$, $p>0.05$, therefore, the null hypothesis were accepted. It can be concluded that there is no influence between learning model using the multiple intelligence approach with the learning model existed at school towards the learning outcomes of the students.

3.2 The Influence of the Learning Model Based on the Multiple Intelligence towards the Learning Outcomes for PMP Development

The influence between the learning model using multiple intelligence approach and the learning model existed at school towards the learning result for the PMP development of the early childhood is analyzed using ANOVA and the result is shown in Table 2.

Table 2. The influence of the multiple intelligence learning approach towards the learning result of the PMP development

Tes	ANOVA				
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.877	1	3.877	1.744	.188
Within Groups	698.108	314	2.223		
Total	701.984	315			

Result showed that $F=1.744$, $p>0.05$, therefore, the null hypothesis were accepted. It can be concluded that there is no influence between the learning model by using the multiple intelligence approach with the learning model existed at school towards the learning outcomes in PMP development.

3.3 The Influence of the Learning Model Based on Multiple Intelligence towards the Outcome of the Language Competence Development

The influence between the learning model using multiple intelligence approach with the learning model existed at school towards the learning outcomes in language competency of early childhood is analyzed using ANOVA and the results is shown in Table 3.

Table 3. The influence of the multiple intelligence learning approach and the learning approach used in school towards the learning outcomes of language competency

Tes	ANOVA				
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.241	1	3.241	5.392	.021
Within Groups	188.709	314	.601		
Total	191.949	315			

Result showed that $F=5.392$, $p<0.05$, therefore, the alternative hypothesis were accepted. It can be concluded that there is influence between the learning model using multiple intelligence approach with the learning model existed in school towards the learning outcomes of language competency development.

3.4 The Influence of the Learning Model Based on Multiple Intelligence towards the Learning Outcome of Social and Environmental Development

The influence of the learning model using multiple intelligence approach with the learning model commonly used in school towards the learning outcomes for social and environmental development of early childhood is analyzed using ANOVA and the result is shown in Table 4.

Table 4. The influence of the multiple intelligence learning approach towards the learning outcomes of social and environmental development

Tes	ANOVA				
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	31.646	1	31.646	60.636	.000
Within Groups	163.873	314	.522		
Total	195.519	315			

Result showed that $F=60.636$, $p<0.05$, therefore, the alternative hypothesis were accepted. It can be concluded that there is an influence between the learning model using the multiple intelligence approach with the learning model existed in school towards the learning outcomes for social and environmental development.

3.5 The Influence of the Learning Model Based on Multiple Intelligence towards the Learning Outcome for Knowledge Development

The influence between the learning model using multiple intelligence and the learning model existed in school towards the learning outcomes for knowledge development of early childhood is analyzes using ANOVA and the result is shown in Table 5.

Table 5. The influence of multiple intelligence learning approach and the learning approach used in schools towards the learning outcome for knowledge development

Tes	ANOVA				
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.848	1	2.848	1.043	.308
Within Groups	857.696	314	2.732		
Total	860.544	315			

Result showed that $F=1.043$, $p>0.05$, therefore, the null hypothesis were accepted. It can be concluded that there is no influence between the learning model using multiple intelligence approach with the learning model existed in school towards the learning outcomes in the students' knowledge development.

3.6 The Influence of the Learning Model Based on the Multiple Intelligence towards the Learning Outcomes of Creativity Development

The influence between the learning model using multiple intelligence approach and the learning model existed in school towards learning outcomes for early childhood creativity development is analysed using ANOVA and the result is shown in Table 6.

Table 6. The influence of multiple intelligence learning approach towards the learning outcomes of creativity development

Tes	ANOVA				
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	66.535	1	66.535	50.917	.000
Within Groups	410.310	314	1.307		
Total	476.845	315			

Result showed that $F=50.917$, $p<0.05$, therefore, the alternative hypothesis were accepted. It can be concluded that there is influence between the learning model using multiple intelligence approach with the learning model existed in school towards the learning outcomes for creativity development.

3.7 The Influence of the Learning Model Based on Multiple Intelligence towards the Learning Outcome of Physical and Health Development

The influence between the learning model using multiple intelligence and the learning model existed in school towards the learning outcome for early childhood physical and health development is analyzed using ANOVA and the results is shown in Table 7.

Table 7. The influence of the multiple intelligence learning approach towards the learning outcome of physical and health development

Tes	ANOVA				
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	153.165	1	153.165	51.979	.000
Within Groups	925.253	314	2.947		
Total	1078.418	315			

Result showed that $F=51.979$, $p<0.05$, therefore, the alternative hypothesis were accepted. It can be concluded that there is influence between the learning model using multiple intelligence approach with the learning model existed in school towards the learning outcomes for physical and health development.

4. Discussion

The learning outcome of early childhood is not influenced by the use of the existing learning models, either the learning models using multiple intelligence approach or the learning models existed in schools. However; for the learning outcomes of early childhood, especially in language competency, social and environmental health, creativity, and, physical and health development, there is a significant influence.

The application of the learning model used by teachers for early childhood education in school basically is not too different from the learning models using multiple intelligence approach. This supports a study by Tienjte and Iskandar (2004) which states that the learning for early childhood has five essential characteristic of playing in relation to the children's development, namely: a. playing is doing an activity because there is motivation from the children and is done for entertain, b. playing is the free choice of the children, they can choose to play or not to play, c. playing must be fun, children must feel fun in getting the experience to do the activity, d. playing is a non-linear activity, involving an element which starts from one level to the next, e. in playing, children are involved actively, both physically and psychologically.

Hawadi (2001) explained that learning for children aged 4-7 years old emphasizes on the game forms that have functions to make the children have the oportunities to explore, express feeling, be creative and learn in fun ways. To fulfill those needs, teachers as one of the learning sources need to guide young children in various sport and games in order to develop the children's ability holistically through the game activities.

5. Closing

Based on the research objectives, it can be concluded that, first, there is no difference in learning outcomes of physical education between the students who use the learning model based on multiple intelligences with the learning model used by the teachers in schools. This study also found out that Secondly, there is no difference in learning outcomes of physical education on the element of developing PMP between students using the learning model of physical education based on multiple intelligences with the learning model used by teachers in school. Third, there is no difference in learning outcomes of physical education on the element of language competency between the students who use the learning model based on multiple intelligences with the learning model used by the teachers at school. Fourth, there is a significant difference in learning outcomes of physical education on the element of social development and the environment health between the students who use the physical education learning model based on the multiple intelligences with the ones who use learning model used by the teachers in school. The use of physical education learning model based on the multiple intelligences is better than the use of learning model used by the teachers in school. Fifth, there is a significant difference in learning outcomes of physical education on the element of knowledge development between the students who use the multiple intelligences with the ones who use learning model used by the teachers in school. Sixth, there is a significant difference in learning outcomes of physical education on the element of creativity development between the students who use leaning model based on the multiple intelligences with the ones who use the

learning model used by the teachers in school. The use of the learning model of physical education based on multiple intelligences is better than the ones who use the learning model commonly used in school. Seven, there is a significant difference in learning outcomes of physical education on the element of physical and health development between the students who use the learning model based on the multiple intelligences and the ones who use the learning model used by the teachers in school. The use of the learning model based on the multiple intelligences is better than the ones who use the learning model commonly used by the teachers in school.

References

- Amstrong, T. (2003). *Setiap Anak Cerdas, panduan membantu anak belajar dengan memanfaatkan multiple intelligencenya*. Jakarta: PT. Gramedia Pustaka Utama.
- Annarino, A. A., Cowell, C. C., & Hazelton, H. W. (1980). *Curriculum Theory and Design in Physical Education*. St. Louis: The CV. Mosby Company.
- Ayahbunda. (2000). *Anak Prasekolah*. Jakarta: PT Gaya Favorit Press.
- Borg, W. R., & Gall, M. D. (1983). *Educational Research: An Introduction* (4th ed.). London: Longman Inc.
- Corbin, C. B. (1980). *A Textbook of Motor Development* (2nd ed.). Iowa: Wm. C. Brown Company Publisher.
- Crum, B. (2003). The Identify Crisis of Physical Education. Makalah disajikan dalam International Conference on sport sciences and Physical Education professions, Universitas Pendidikan Indonesia, Bandung, 10-12 Maret.
- Dayati, U. (2004). *Strategi Mendidik Anak Sejak Dini Usia Guna Memperkokoh Kepribadian Bangsa*. Makalah disampaikan dalam Pembekalan Pendidikan Anak Dini Usia (PADU), Malang, tgl 26-27 Juli 2004.
- Dick, W., & Carey, L. (1990). *The Systematic Design of Istruotional* (2nd ed.). London: Scott Foresman and Company.
- Diknas. (2003a). *Metodik Khusus Pengembangan Jasmani di Taman Kanak-kanak*. Jakarta: Depdiknas.
- Diknas. (2003b). *Program Kegiatan Belajar Taman Kanak-kanak*. Jakarta: Depdiknas.
- Diknas. (2004). *Kurikulum 2004, Standar Kompetensi Taman Kanak-kanak dan Raudatul Athfal*. Jakarta: Depdiknas.
- Drowatzky et al. (1984). *Physical Education Career Perspectives and Professional Foundations*. New Jersey: Englewood Cliffs, Prentice-Hall Inc.
- Edwards. (1973). *Sociology of Sport*. Illinois: The Dorsey Press.
- Freeman, W. H. (1987). *Physical Education and Sport in Changing Society*. New York: Macmillan Publishing Company.
- Gabbard, C., LeBlanc, E., & Lowy, S. (1987). *Physical Education for Children*. New Jersey: Englewood Cliff, Prentice-Hall Inc.
- Gardner, H. (2003). *Multiple Intelligences*. Terjemahan Alexander Sindoro. Jakarta: Interaksara.
- Gunawan, A. W. (2003). *Born to be Genius*. Jakarta: PT Gramedia Pustaka Tama.
- Hawadi. (2001). *Psikologi Perkembangan Anak*. Jakarta: PT Grasindo.
- Hurlock, E. B. (1979). *Psikologi Perkembangan*. Terjemahan Iswidayanti. Jakarta: PT Gramedia.
- Lazaier, D. (2005, February 28). *What Is Multiple Intelligences?* Retrieved from <http://www.multi-intell.com>
- Lumpkin, A. (1998). *Introduction to Physical Education, Exercise Science and Sport Studies*. New York: Mc-Graw Hill.
- Meliala, A. (2004, July 9). *Kecerdasan Majemuk, Kecerdasan Seutuhnya: Mendidik Anak Cerdas dan Berbakat*. Retrieved December 31, 2004, from <http://www.BalitaCerdas.com>
- Mosston, M., & Ashworth, S. (1994). *Teaching Physical Education* (4th ed.). Macmillan: College Publishing Company.
- Mutohir, T. C. (2002). *Gagasan-Gagasan Dalam Pendidikan Jasmani dan Olahraga*. Surabaya: UNESA Press.
- Santoso, B. (2002). Multiple Intellegencies (Kecerdasan Majemuk) dan Accelerated Learning (Pembelajaran Dipercepat). *Gentengkali*, 4(1-2), 46-48.
- Semiawan, C. R. (2002). *Belajar dan Pembelajaran dalam Taraf Pendidikan Usia Dini*. Jakarta: PT Gramedia Pustaka Tama.

- Soemosasmito, S. (1991). Pendidikan Jasmani (Suatu Analisis). *Media Ilmiah Keolahragaan Gelanggang*, 3, 1-13.
- Soenaryo, F. S. (2004). *Mengoptimalkan Perkembangan Kecerdasan Anak Sejak Dini Usia (Kajian Teoritis tentang Multiple Intellegences-Howard Gardner)*. Makalah disampaikan dalam Pembekalan Pendidikan Anak Dini Usia (PADU), tgl 26-27 Juli 2004.
- Sugiyanto, & Sudjarwo. (1991). *Perkembangan dan Belajar Gerak*. Jakarta: Depdiknas.
- Sujiono, B. (2002). Optimalisasi Potensi Anak Melalui Rangsangan Pusat Berpikir (Brain Training). *Fortius*, 2(1), 47-58.
- Suparno, P. (2002). *Teori Intelegensi Ganda Dan Aplikasinya Di Sekolah*. Yogyakarta: Penerbit Kanisius.
- Syariffudin, & Sukur, A. (2002). Program Pembelajaran Gerak Siswa Pra-sekolah. *Fortius*, 2(1), 39-46.
- Syariffudin. (2003). The Identify Crisis of Physical Education. Makalah disajikan dalam International Conference on sport sciences and Physical Education professions, Universitas Pendidikan Indonesia, Bandung, 10-12 Maret.
- Tientje, N., & Iskandar, Y. (2004). *Pendidikan Anak Dini Usia Untuk Mengembangkan Multipel Inteligensi*. Jakarta: Dharma Graha Press.
- Undang-undang RI No. 20 tahun 2003 tentang Sistem Pendidikan Nasional*. 2003. Jakarta: PT Armas Duta Jaya.
- Wuest, D. A., & Bucher, C. A. (1995). *Foundations of Physical Education and Sport* (12th ed.). St. Louis: Mosby-Year Book, INC.

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