Hosted by :
Kasetsart University

ACPES 2017

The 3rd International Conference on Physical Education Health and Sport

ASEAN Council of Physical Education and Sport

"Best Practice for ASEAN+ Community: Enhancing Physical Activity, Physical Education, Sport, Health and Recreation"

ACPES

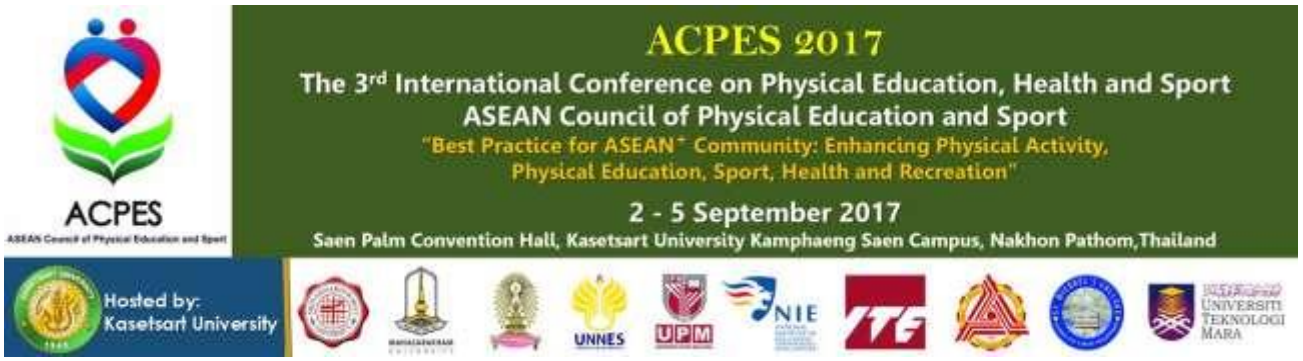
ASEAN Council of Physical Education and Sport

2-5 September 2017

Saen Palm Conventiona Hall

Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom, Thailand

ISBN 978-616-278-391-3



PROCEEDING INTERNATIONAL CONFERENCE OF ASEAN COUNCIL OF PHYSICAL EDUCATION AND SPORT (ACPES) 2017: BEST PRACTICE FOR ASEAN+ COMMUNITY: ENHANCING PHYSICAL ACTIVITY, PHYSICAL EDUCATION, SPORT, HEALTH AND RECREATION

Education and Development Sciences Faculty, Kasetsart University Kamphaeng Saen Campus, Thailand

Saen Palm Convention Hall, Kasetsart University Kamphaeng Saen Campus, Thailand
1 Moo 6 Malaiman Rd., Kamphaeng Sean District, Nakhon Pathom Province 73140
Email: acpes2017@hotmail.com
Website: www.acpes2017.kasetsart.org
Telp./Fax.: (+66) 34 351898/ (+66) 34 351403

First published in September 2017
Editor : Suporntip Pupanead, Sirichai Sriprom, Somboon Silrungtham, Theeranan Tanphanich, Suppawan Vongsrangsap
Layout : Theeranan Tanphanich, Suppawan Vongsrangsap
Cover design : Suppawan Vongsrangsap

Library cataloguing in Publication Data:
Proceeding International Conference Of Asean Council Of Physical Education And Sport (Acpes) 2017: Best Practice For Asean+ Community: Enhancing Physical Activity, Physical Education, Sport, Health And Recreation published by the Education and Development Sciences Faculty, Kasetsart University Kamphaeng Saen Campus, Thailand-includes bibliographical references
I. Series ISBN: 978-616-278-391-3
Distributed by:
Education and Development Sciences Faculty, Kasetsart University Kamphaeng Saen Campus, Thailand
1 Moo 6 Malaiman Rd., Kamphaeng Sean District, Nakhon Pathom Province 73140
Email: acpes2017@hotmail.com
Website: www.acpes2017.kasetsart.org
Telp./Fax.: (+66) 34 351898/ (+66) 34 351403

WELCOME MESSAGE FROM THE PRESIDENT OF ASEAN COUNCIL OF PHYSICAL EDUCATION AND SPORT

On behalf of ASEAN Council of Physical Education and Sport, I am a great pressure to welcome allof you the open ceremony this morning to the 3rd International Conference on Physical Education, Health, and Sport which will be held in Saen Palm Convention Hall, Kasetsart University, KamphaengSaen Campus, Thailand from September 2-5, 2017 organized by Faculty of Education and Development Sciences, Kasetsart University, KamphaengSaen Campus, Thailand. I would like to sincere most specially thank you organizing committee and key note speakerDr.KasemNakornkhet, from Physical Activity Research Center Thai Health Promotion Foundation,Prof. Dr. Barbara Schlatter from Illinois state university, USA., Prof. Dr. Shinya KUNO from Department of sport Medicine, University of Tsukuba, Japanfor honor invitation in spite of your very busy and tide schedule.

I would say that this conference series was formly called ASEAN Universities Conference on Physical Education and Sport Sciences (AUCPESS) which began in 2011. The 1st AUCPESS conference was hosted by Srinakharinwirot University Thailand, and 2nd conference at University of Putra Malaysia, The 3rd conference at Mahasarakham University, and The 4thconference at NIE and ITE Singapore. Since July 8, 2014, AUCPESS decided to be expanded and called ACPES (Asean Council of Physical Education and Sport) in order to accommodate more aspirations and expressions of sport's community. The 1st conference, ACPES 2015, was hosted by Semarang State University Indonesia. The 2nd conference, ACPES 2016 was hosted by Mindanao State University-Iligan Institute of Technology Philippines. And now, our third conference which will be held from September 2-5, 2017 at Kasetsart University Kamphaeng Saen Campus. For the time being, ACPES has networking 11 universities including Kasetsart University Thailand, Chulalongkorn University Thailand, Srinakharinwirot University Thailand, University of Putra Malaysia, Mahasarakham University Thailand, National Institute of Education Singapore, Semarang State University Indonesia, Institute of Technical Education Singapore, Mindanao State University-Iligan Institute of Technology Philippines, Universiti Teknologi MARA Malaysia, and St. Michael's College Singapore.

ISBN 978-616-278-391-3

In this 3rdACPES conference will provide us not only essential knowledge but also a great opportunity to share experiences both technical and significant issues and. Finally, I wish all 3 days of interesting and beneficial program and also that you have a pleasant stay in Kasetsart University, Kamphaeng saen. I warmly welcome you again.

Assoc. Prof. Dr.Supranee Kwanboonchan
President of ASEAN Council of Physical Education and Sport

ISBN 978-616-278-391-3

WELCOME MESSAGE FROM THE PRESIDENT OF KASETSART UNIVERSITY

On behalf of Kasetsart University Thailand, I am honored and delighted to welcome you to the 3rdInternational Conference on Physical Education, Health and Sport. We are very excited to be hosting this important conference at Kasetsart University Kamphaeng Saen Campus. The theme of the 2017 conference "Best Practice for ASEAN Community: Enhancing Physical Activity, Physical Education, Sport, Health and Recreation" will underpin the need for collaboration and cooperation of individuals from a wide range of professional backgrounds. I extend my gratitude to ACPES 2017 committee as I know that the success of the conference depends ultimately on many people who have worked with us in planning and organizing this program. I hope that you will find the conference and your stay in Kasetsart University Kamphaeng Saen Campus are both valuable and enjoyable.

Dr.Chongrak Wachrinrat
President of Kasetsart University

ISBN 978-616-278-391-3

WELCOME MESSAGE FROM THE ACTING VICE PRESIDENT FOR KAMPHAMPHAENGSAEN CAMPUS

On behalf of *Kasetsart University, KamphaengSaen campus*, I am a great pressure to welcome all of you to participate *the 3rd International Conference on Physical Education, Health, and Sport* which will be held in Saen Palm Convention Hall, Kasetsart University, KamphaengSaen Campus, Thailand from September 2-5, 2017 organized by Faculty of Education and Development Sciences. I would like to sincere most specially thank you organizing committee and key note speakerfor honor invitation.In this 3rdACPES conference will provide us not only essential knowledge but also a great opportunity to share experiences both technical and significant issues. Finally, I wish all 3 days of interesting and beneficial program and also that you have a pleasant stay in Kasetsart University,Kamphaengsaen.

Assoc.Prof.TrinSaengsuwan, Ph.D.
Acting Vice President for KamphaengSaen Campus

ISBN 978-616-278-391-3

WELCOME MESSAGE FROM THE DEAN OF FACULTY OF EDUCATION AND EDVELOPMENT SCIENCE

Welcome to ACPES 2017. It is on behalf of the conference committee that we are very pleased to invite you to join the third conference of ASEAN Council of Physical Education and Sport, as known as ACPES 2017 which is hosted by Kasetsart University Kamphaeng Saen Campus Thailand. It is located on a vast area of over 3000 acres in Kamphaeng Saen, Nakhon Pathom, the lower central region of Thailand. This annual event devoted to the physical activity, sport, health and recreation that will give participants a platform of exchanging ideas, discovering new opportunities, reacquainting with colleagues, meeting new friends, and broaden their knowledge. The members of the organizing committee are very proud to be hosting this conference and look forward to welcoming you to our city and our country.

Assist. Prof. Dr. Kampanat Pensupar
Dean of Faculty of Education and Development Sciences

ACPES
ASEAN Council of Physical Education and Sport
2-5 September 2017
Saen Palm Conventiona Hall
Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom, Thailand
ISBN 978-616-278-391-3

WELCOME MESSAGE FROM THE CHAIRPERSON ACPES CONFERENCE 2017

On behalf of organizing 3rd ACPES conference committee, It is a great pleasure for me to welcome key note speakers and participants from all ACPES networks to come for exchange experience and knowledge together on the 3rd International Conference on Physical Education, Health, and Sport is held at Kasetsart University, Kamphaeng Saen Campus, Thailand during September 2-5, 2017. As chairman of ACPES conference, I wish the conference would enhance knowledge and experience in term of physical activity and physical education, health and recreation among ASEAN+ community networks. Hereby, we invited a famous key note speakers and various kinds workshops to share new ideas and boarder perspective. Finally, I wish you will gain benefit on those ACPES conference and enjoy our Kasetsart University, Kamphaeng saen campus.

Sirichai Sriprum

Assist. Prof. Dr.Sirichai Sriprum
Chairperson ACPES conference 2017

ACPES
ASEAN Council of Physical Education and Sport
2-5 September 2017
Saen Palm Conventiona Hall
Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom, Thailand
ISBN 978-616-278-391-3

TABLE OF CONTENT FULL PAPER

ISBN 978-616-278-391-3

2-5 September 2017
Saen Palm Conventiona Hall
Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom, Thailand
ISBN 978-616-278-391-3

ISBN 978-616-278-391-3

ISBN 978-616-278-391-3

ISBN 978-616-278-391-3

ACPES 2017
The 3rd International Conference on Physical Education, Health and Sport
ASEAN Council of Physical Education and Sport
"Best Practice for ASEAN+ Community: Enhancing Physical Activity, Physical Education, Sport, Health and Recreation"
2 - 5 September 2017
Saen Palm Convention Hall, Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom,Thailand
Hosted by: Kasetsart University

ACPES5-FULL

SPORTS IMPLICIT BELIEFE AND SPORTS EMOTIONS

Imelu G. Mordeno[*1], Corazon Biong[2], Gretelou Sugano[3]

[1]*Mindanao State University – Iligan Institute of Technology*
[2]*Mindanao State University – Iligan Institute of Technology*
[3]*Mindanao State University – Iligan Institute of Technology*

Aabstract

Several studies have been conducted mostly focused on the emotions to achievement in sports, but limited studies on the antecedents on relationship of implicit beliefs to sports emotions. This study aimed to examine implicit beliefs on ability as determinants of sports emotions. A sample of 1027 college students took part in the study and completed self-report questionnaires on athletes' emotional states and implicit beliefs. Hierarchical regression analyses were conducted twice, first with two subcomponents of implicit beliefs (entity and incremental beliefs) and second, with more specific four subcomponents of implicit beliefs (stable, gift, improvement and learning). The findings showed that incremental beliefs positively influence positive emotions (i.e., excitement and happiness) but negatively enhance negative emotions (i.e., anxiety, dejection and anger). Examining closely the stable- and gift-entity beliefs, results yielded that stable-entity predict positively negative emotions while gift-entity beliefs predicts happiness. The findings of the study implied that when athletes discriminate their abilities that are fixed and deficit in contrast to abilities that are fixed and positive (i.e., gift), different emotions can be elicited.

Keywords: sports implicit beliefs, sports emotions, athletes, hierarchical regression

1. Introduction

With its highly valued goals coupled with uncertain outcomes, could be considered a "natural laboratory" for the examination of emotion (Patmore, 1986; Uphill, 2012). Current research on emotions has described emotions as multiple-competent process that comprises specific affective, cognitive, psychological and behavioral elements (Pekrun, Goetz, Frenel, Barchfield, & Perry, 2011; Scherer, 2009; Mega, 2013. Several studies have been conducted mostly focused on the emotions to achievement in sports, but limited studies on the antecedents on relationship of implicit beliefs to sports emotions.

Competitive sports are heavily emotional. Emotions arising from these personally motivated goal-driven activities can have significant effects or athletic achievement (McCarthy, 2011). Several researches have shown the differential effects of positive and negative emotions to athletes'

ISBN 978-616-278-391-3

performance and achievement (Allen et al., 2013; Arnold & Fletcher, 2014; Croker et al., 2014; McCarth, 2014; Tabeian et al., 2013; Vast et al., 2013).

Despite the indisputable role of emotions in sports researches on its antecedents are limited. Particularly, the relationship between how athletes' beliefs about themselves (i.e., implicit beliefs) and their emotional experiences is yet to be explored.

This unfortunate considering that voluminous researches have indicated how implicit theories (Dweck et al., 1995) affect several areas in athlete's well-being (e.g., Biddle et al., 2003; Sarrazin et al., 1996). This study seeks to address this gap by examining the influence of implicit beliefs on sports emotions.

Sports Emotions

The vital influence of emotions to athletes' performance is understandable in the context that emotions are inherently a social process. Friesen et al. (2013) contend that sport is fundamentally a social activity as athletes interact a lot with others (e.g. teammates, coaching staff, opponents), and thus, diversity of emotions are expected to occur.

Numerous researches have shown that array of emotions are experienced by athletes when playing with their sports (Hanin, 2000; Latinjak, 2012; McCarthy, 2011; Puig and Vilanora, 2011; Uphill & Jones, 2007; Vast et al., 2010). Hanina (2007) pointed out the growing consensus on the importance of studying multiple pleasant and unpleasant emotions rather than narrowly focusing only on sports anxiety. The significance of studying the range of emotional experience among athletes is based on the findings that emotions had differential effects to sports performance (Uphill, Groom & Jones, 2014).

For instance a number of researchers showed that positive emotions such as excitement and enjoyment affect athletes successful endeavours in sport (Mc Carthy, 2011; McCarthy et al., 2014; Taylor & Franes, 2013; Tabeian et al., 2013; Uphill & Jones, 2012; Uphill et al., 2014; Vast et al, 2011) while negative emotions have been found to be detrimental to sport performance (e.g., McCarthy et al., 2011; Vast et al., 2011; Wilson, Vine & Wood, 2009). Moreover, several researches have shown meditational process of motivation, physical functions, subjective interpretation of emotions, concentration, attention, and cognitive interferences (Allen et al., 2013; Hanin, 2000; McCarthy, 2013; Vast et al., 2010; Woodman et al., 2009) on the relationship between emotions and sports performance.

With the increasing literature on how sports emotions affect sports performance and well-being of athletes, researches have also examined antecedents of these emotions. Cognitive appraisals (Uphill and Jones, 2007), causal attribution (Allen et al., 2009), motivation (Pelletier, 1995), goal orientation (Dewar & Kavussanu, 2011) positive reflection (Allen et al., 2010), and subjective interpretation of emotions effect on performance (Hanin, 2000) were found to substantially influence sports emotions. However, to the authors' knowledge, none so far have studied the link between implicit beliefs and sports emotions. This is unfortunate considering the voluminous studies emphasizing the influence of implicit beliefs to several areas of one's life (e.g., Dweck, 2013; Williams, 2012).

Implicit Beliefs

Dweck and colleagues (Dweck, 1999; Dweck et al., 1995; Dweck & Leqett, 1988) proposed a model of individual differences based on one's fundamental belief about the nature of human attributes (Molden & Dweck, 2006). Individuals who believed that human attributes (i.e., ability) are malleable,

flexible and can be built upon have an incremental view while those who perceive these attributes as fixed, unchangeable and could not be built upon have an entity view. These two implicit beliefs produce different motivational, behavioural and affective responses (Dweck, 1999).

In the domain of sports or physical activity Sarrazin et al. (1996) developed on multidimensional view of athletic ability. Building on Dweck et al.'s theory, they develop conceptions of the Nature of Athletic Ability Questionnaire (CNAAQ) which was later revised by Biddle et al., (2003). These scales adopted the two implicit theories but construe these in higher order, separate components. Under the entity of beliefs are stable and gift subcomponents while incremental beliefs is composed of learning and improvement subcomponents. Further, the influence of implicit beliefs on several domain in sports have been documented. Research findings show that implicit beliefs of ability influence goal adoption (e.g., Moreno et al., 2010; Moreno-Murcia, 2014; Stenlig, Hassmen & Holustoom, 2014), amotivation (Biddle et al., 2003) performance (Jowett & Spray, 2013), sport-specific performance (Jowett & Spray, 2013) and affective outcomes (Gardner et al., 2015; Ommundsen, 2001, Robins & Pals, 2002; Wang & Biddle, 2001).

Implicit Theories and Sports Emotions

Studies linking implicit beliefs and sports emotions are very limited. Most of the studies focused only with how athletes implicit beliefs affect anxiety (most recently, Gardner et al., 2015; Stenlig et al., 2014). To the authors' knowledge, none so far have established direct relationship between implicit theories and an array of emotions.

This study examines this relationship in the perspective of Dweck and Leqett's (1988) implicit theories model. Their model, mostly implemented in the academic setting, asserts that individual differences on individuals' beliefs about the nature of ability lead to differences in cognitive, affective and behavioural responses within achievement domain (Dweck, 1999). Utilization of this model is becoming more extensive and widely disseminated in the areas of sport and physical education.

Both implicit theories, incremental and entity are found differentially affect individuals affective reactions. Research findings indicate that incremental beliefs influence enjoyment in academic work, improve conscientiousness and lower anxiety (e.g., Blackwell et al., 2007; Dweck, 2008; Dweck & Molden, 2005; Tamir et al., 2007; Ossmundsen, 2001) while entity beliefs are associated with amotivation, burn out, higher levels of anxiety, lower levels of satisfaction, and feelings of helplessness (Biddle et al., 2003; Dweck, 1996; Lougsdale et al., 2009; Skaalvik & Skaalvik, 2007)

A number of studies have explained the differential effects of implicit beliefs (e.g., Jowett & Spray, 2013; Stenlig et al., 2015; Moreno et al., 2010) of which boils down to the concepts of control and effort. For instance, in sports context, if athletes see themselves as able to change and control their abilities and improve their skills (incremental beliefs), they are likely to enjoy, be excited and be satisfied with sports activities. However, if they believe that no matter how much effort they invest in their ability is fixed or stable and their progress is beyond their control (entity beliefs), they are more likely to experience helpless, anxiety, and a sense of futility with exerting more efforts to improve their abilities or skills (Moreno-Murcia et al., 2015; Stenlig et al., 2014; Gardner et al., 2015) .

ISBN 978-616-278-391-3

Individuals who felt having less control over their abilities and find their efforts not contributing to their development are likely to experience negative emotionality while those who view their abilities to be flexible and believe that efforts will eventually make themselves better are likely to experience satisfaction with their situation.

Despite the usefulness and soundness of Dweck's implicit theories model in explaining consequent emotional experiences of athletes, it has been rarely utilized in the existing literature Specifically, emotional experiences aside from anxiety and enjoyment are yet to be explored. This study examines if implicit beliefs significantly influence sports emotions. The findings of this study will be relevant to coaches and athletes and other stakeholders particularly what interventions can be used focusing on implicit beliefs, given that the existing literature have established the importance of consequent emotions to athletes' performance and well-being.

Linking Implicit Beliefs to Sports Emotions

When athletes with entity beliefs face a challenging task, they tend to become worried, anxious, or easily discouraged (Dweck, 1999; Williams, 2012). In contrast, those athletes with incremental beliefs see effort as probably the most important influence contributing to their success. This is important to relate that abilities, or circumstances can change and therefore effort is necessary for creating that change to those athletes with incremental beliefs (Dweck, 1999; Williams, 2012). Effort is futile to entity athletes, because they believe that their ability in sports is natural and cannot be enhanced, and adding more effort only demonstrates their weakness. But for incremental athletes, effort is essential and the key to their achievement (Dweck, 1999; Williams, 2012).

When those entity athletes experience social rejection for the team, they might conclude after only one instance that they are unlikeable and feel that quality trait of dejection. In contrast, when an incremental athlete is rejected by a person will somehow interpret that he/she is just having a bad day but might still feel awkward or sad, yet still hoping for future improvement and within reason, they might decide to try again later (Williams, 2012). Hence, the difference between entity athletes and incremental athletes is that, for incremental athletes,

there is an openness to possibility that leads to positive emotion in the face of difficulty (Dweck, 1999; Willams, 2012) and entity athletes are associated with maladaptive outcomes (King, 2012).

2. Experimental Work/Research Methodology

Participants

The sample involved 1027 college students from two state-owned universities in Northern Mindanao, Philippines. All of them are actively engaging is competitive sports with an a mean average of 4.3372 years (SD = 2.977) of involving themselves in their sports.

Overall, 49.4% (n=507) are first year students, 40.4% (n=415) are second year students, 6.4% (n=66) are third year students, and 3.5% (n=36) are in their fourth year. One respondent did not indicate year level. The average of the respondents is 18.05 years old (SD= ____) with males. Comprised of 427 (_____%) while females constituted ____% (n=596).

Measures

ISBN 978-616-278-391-3

Sport Emotion Questionnaire (SEQ; Jones, Lane, Bray, Uphill, & Catlin, 2005). SEQ assesses emotional states of athletes in an upcoming sports competition. It consist of 22 items and is categorized under five subscales: anxiety (five items: nervous, anxious, tense, apprehensive, and uneasy), dejection (five items: unhappy, sad, upset, dejection and disappointed), anger (four items: annoyed, irritated, furious, and angry), excitement (four items: enthusiastic, excited, energetic, and exhilarated) and happiness (four items: joyful, pleased, cheerful, and happy). The participants were instructed to respond to the items using a 5-point scale (0=not at all to 4=extremely). The psychometric properties of the SEQ in this study, reliability coefficients for the five subscales anchored in a context were .87 (anxiety), .90 (dejection), .80 (anger), .81 (excitement), and .82 (happiness). The validity and reliability of SEQ have received support with a number of studies (most recently, Arnold & Fletcher, 2014). Cronbach alpha coefficients anchored in post competition were .77 (anxiety), .89 (dejection) .84 (anger), .89 (excitement), and .94 (happiness).

Conception of the Nature of Athletic Ability Questionnaire -2 (CNAAQ -2). The scale, originally developed by Sarrazin (NAAQ, 1996), was revised by Biddle et al. (2003) to assess implicit beliefs of the athletes with regard to their perception on the nature of one's sports ability. NAAQ-2 measures two higher-order factors of entity and incremental beliefs. Nested with incremental beliefs are sub-factors learning and improvement while entity beliefs is comprised with stable and gift components. In this study, the scale has a high cronbach alpha of .776.

Procedure

Before data collection, statement of informed consent of all participants was obtained. The questionnaires with all the scales and some demographic information were distributed to the athletes of tertiary schools in Region X. The athletes completed the questionnaire to assess their sport emotion and implicit beliefs. Participants were encouraged to ask questions if they found any items unclear or confusing.

After securing permission from Physical Education teachers from two government-owned universities, the researchers administered the set of questionnaire for those who are actively involved in competitive sports. They were given verbal instructions and were assured on the confidentiality of their personal data. All of the respondents gave their informed consent before their participation in the study.

Data Analysis (Version 1)

In determining the relationship between implicit beliefs and sports emotions, path analysis was conducted. Implicit beliefs were construed as criterion variables while sports emotions were designated as outcome variables. In the initial model, the two implicit beliefs factors were correlated and all possible paths from these factors to sports emotions were conceived. No correlated errors were included in the model. More parsimonious models, that all paths suggested to be deleted based on _____ were done to increase fit indices. Fit indices was evaluated based on conventional guidelines. NNFI and GFI values of >.90 were regarded as

adequate fit, while values of >.95 were regarded as excellent fit. RMSEA values of <.08 were regarded as adequate fit, while values <.06 reflected excellent fit. To determine if the model improved after

revision, scaled x^2 different S-Bx^2 were computed. Significant difference between models imply the construing parameters made the model significantly worse in contrast to a lesser restrained model.

Data Analysis (Version 2)

In determining the relationship between implicit beliefs and sport emotions, a series of hierarchical regressions were conducted. Implicit entity and incremental beliefs were treated as criterion variables, while sports emotions were construed as outcome variables. Step 1 of the equation, gender, age and years in sports were treated as control variables. On the second step, incremental and entity beliefs were entered as antecedents of all sports emotions.

3. Results and Discussion

3.1. Descriptive Statistics and Zero-Order Correlation

Descriptive Statistics and zero-order correlation of the relevant scales and its subscales are shown in Table 1. The results show that incremental beliefs are positively correlated with excitement and happiness but negatively correlated with dejection and anger. Additionally, entity beliefs are positively correlated with all the emotions (i.e., anxiety, dejection, excitement, anger and happiness.

Examining implicit beliefs based on its subcomponents, the findings show that improvement and learning incremental beliefs are consistently positively related with positive emotions (i.e., excitement and happiness).

Noticeably, except for dejection which did not correlate significantly with gifts entity beliefs, all implicit beliefs are positive relation with all sports emotions, both negative and positive.

3.2 Regression Analyses

Heirarchical Regression Analyses were conducted twice, first with two subcomponents of implicit beliefs (entity and incremental beliefs, and second, with more specific four subcomponents of implicit beliefs (stable, gift, improvement and learning). On the first regression model, after controlling for gender, age and years involved in sports, incremental beliefs positively predicts excitement and happiness while negatively influences anxiety, dejection, and anger. It should be noted however that beliefs are positive determinants of all sports emotions.

Examining the second hierarchical regression results show that controlling for age, gender and years of sports involvement, learning and improvement-incremental beliefs consistently positively predict positive emotions (i.e., excitement and happiness) and negatively predict dejection. However, only learning-incremental beliefs influenced negatively anxiety and anger. With regard to entity beliefs, stable consistently determined negative emotions such as anxiety, dejection and anger but did not significantly relate to positive emotions. It is interesting to note that gift-entity beliefs positively related with happiness.

4. Discussion

The direct relationship between implicit beliefs and sports emotions among Asian athletes (particularly, Filipinos) has been absent in the current literature. This study addresses this gap by examining implicit beliefs on ability as determinants of sports emotions. Utilizing Dweck & Leqett's (1988) implicit theories model, this research hopefully classifies the theoretical links between these constructs.

ISBN 978-616-278-391-3

Implicit theories model surmised that individuals in an achievement setting who view their abilities in different ways are likely to have differences with their cognitions, behaviour and affective domains (Dweck, 1999). In line with this theoretical assertion, this study asserts that how athletes think about the nature of their ability, may it be changing or fixed, are likely to influence how they feel about their sports.

The findings showing that incremental beliefs positively influences positive emotions (i.e., excitement and happiness) but negatively enhances negative emotions (i.e., anxiety, dejection and anger) have been theoretically supported. Although limited in the scope of emotions studied, several researches have indicated the incremental beliefs lead to increase of positive emotions (e.g., enjoyment) and lowers negative affectivity (e.g. anxiety) among athletes (e.g., Moreno-Murcia et al., 2014; Stenlig et al., 2014; Gardner et al, 2015) It could be inferred that athletes who view that their efforts could lead to learning and improvement of their athletic abilities are likely to be more excited and happier during practice and actual games. Additionally, with the belief that changing their abilities is within their control, athletes are likely to lower their feelings of anxiety, dejection and anger.

It is of academic interest to note that although entity beliefs expectedly increases the likelihood for athletes to feel negative emotions, the results show that entity beliefs also positively influence positive emotions. The link between entity beliefs and negative emotions have been established in previous researches (Biddle et al., 2003; Dweck, 1996; Longsdale et al., 2009; Skaalvik & Skaalvik, 2007). The common explanation to change their ability despite their efforts, they will likely experience negative emotionality. However, the results of the study of positive emotions runs counter to these researches.

To understand better the seemingly counterintuitive finding, we executed another hierarchical regression analysis, with specific for implicit beliefs (stable, gift, improvement and learning) as criterion variables and sports emotions are the outcome variables. Examining closely the stable- and gift-entity beliefs, results yielded that stable-entity predict positively negative emotions (i.e., anxiety, dejection and anger) while gift-entity beliefs predicts happiness. These results suggest that while athletes espousing entity beliefs may experience anxiety, dejection and anger on the futility of their efforts to improve and learn their skills, they may also likely feel happy on the basis that they construe their ability as a "gift".

These research findings are not really contradictory. This research contends that athletes perceive their athletic skills in more specific ways, and thus, may have different consequent emotions. For instance, a point guard basketball player my feel negatively on his ability to rebound due to his fixed reaching ability in contrast to taller players. However, he might feel happy with his "gift" of handling the ball well and executing efficiently game plans.

Thus, those specific abilities the player find deficit and fixed will likely produce negative emotions while those abilities perceived to be exceptional and a "gift" are likely to elicit positive emotions. Ziegler and Stoegen (2010) pointed out that entity beliefs will have negative effects only when negative aspect of one's ability is considered stable entities. However, when applied to positive aspects of one's ability, negative consequences will cease to exist. This study extends this notion and claims that entity beliefs of abilities athletes considered as "gifts" enhances positive emotions to athletes.

ISBN 978-616-278-391-3

The current findings need to be interpreted in light of its limitations. First, our participants are athletes in the collegiate level, thus the findings can only be generalized to this type of population. It is academically interesting to replicate these researches to professional athletes. Second, the cross-sectional nature of this study implies that causality direction could be made. Third, it could have better if the type of sports (e.g., individual vs. team sports) were also considered to determine if these may have influence on the relationship between implicit beliefs and sport emotions. Finally, the use of self-report measure is known to have limitation with regard to social desirability and other biases in taking the test.

Amidst these limitations, this study highly a number of contribution to the existing literature. First, to the authors' knowledge, this is the first study to establish the relationship between implicit beliefs and an array of sports emotions. Second, the results affirm the notion that incremental beliefs enhance positive emotions and negatively predict negative emotions. Finally, is it theoretically interesting and enlightening with the findings showing that although entity beliefs in general influence negative emotions, it is also positively enhances positive emotions, especially if the fixed abilities are construed as gifts among athletes. This connotes that when
athletes discriminate their abilities that are fixed and deficit in contrast to abilities that are fixed and positive (i.e., gift) different emotions can be elicited.

REFERENCES
Note: References will follow.
APPENDICES

Appendix A

Table 1
Summary of hierarchical regressions predicting different sports emotions (standardized beta coefficients are shown).

	Anxiety	Dejection	Excitement	Anger	Happiness
	B	β	β	β	β
Step 1					
Gender	0.053	0.07*	-0.014	0.033	0.006
Year Level	0.033	0.005	-0.022	0.008	-0.002
Sports Year	-0.006	-0.004	-0.005	-0.04	0.009
Step 2					
Gender	0.066*	0.083*	-0.009	0.046	0.009
Year Level	0.023	-0.007	-0.016	-0.003	0.006
Sports Year	0.007	0.012	-0.015	-0.025	-0.002
Stable	0.147*	0.159*	0.05	0.155*	-0.005
Gift	0.053	0.000	0.065	0.044	0.073*
Improvement	0.018	-0.088*	0.098*	-0.003	0.090*
Learning	-0.124*	-0.134*	0.170*	-0.144*	0.181*

Note: *p<.05

ISBN 978-616-278-391-3

Appendix B

Table 2
Summary of hierarchical regressions predicting different sports emotions (standardized beta coefficients are shown).

	Anxiety	Dejection	Excitement	Anger	Happiness
	β	β	B	β	β
Step 1					
Gender	0.053	0.070*	-0.014	0.033	0.006
Year Level	0.033	0.005	-0.022	0.008	-0.002
Sports Year	-0.006	-0.004	-0.005	-0.04	0.009
Step 2					
Gender	0.068*	0.084*	-0.01	0.048	0.007
Year Level	0.024	-0.007	-0.016	-0.003	0.005
Sports Year	0.005	0.012	-0.013	-0.027	-0.001
Entity	0.166*	0.132*	0.104*	0.165*	0.066*
Increment	-0.085*	-0.188*	0.238*	-0.120*	0.237*

Note: *p<.05

ISBN 978-616-278-391-3

Appendix C

Table 3
Descriptive statistics, internal consistency reliability, and zero-order correlations among the variables.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Sports Emotions														
1. Anxiety	1	0.616**	0.357**	0.624**	0.287**	-0.089**	-0.029	-0.038	0.137**	0.101**	-0.013	-0.058	.135**	-.037
2. Dejection		1	0.08*	0.677**	-0.045	-0.159**	-0.168**	-0.063	0.092**	0.034	-0.129**	-0.140**	.070*	-.149**
3. Excitement			1	0.293**	0.650**	0.029	0.106**	0.019	0.156**	0.142**	0.226**	0.258**	.169*	.267**
4. Anger				1	0.105**	-0.057	-0.062*	-0.024	-0.133**	-0.093**	-0.046	-0.092**	.128**	-.074*
5. Happiness					1	0.017	0.104**	0.029	0.108**	0.122**	0.214**	0.250**	.132**	.255**
Sports Engagement														
6. Behavioral Engagement						1	0.515**	0.442**	0.003	0.017	0.154**	0.153**	.149**	.191**
7. Emotional Engagement							1	0.521**	0.059	0.194**	0.201**	.155**	.222**	
8. Cognitive Engagement								1	0.123**	0.093**	0.190**	0.183**	.122**	.207**
Nature of Athletic Ability														
9. Stable									1	0.529**	0.245**	0.293**	.856**	.296**
10. Gift										1	0.165**	0.202**	.891**	.202**
11. Improvement											1	0.621**	.232**	.920**
12. Learning												1	.279**	.879**
13. Entity													1	.281**
14. Increment														1
Mean	9.9299	8.4677	10.0457	7.4361	11.3331	17.6417	23.7449	29.6707	9.9688	10.0155	11.8997	11.7366	19.9843	23.6363
SD	3.48304	4.71499	2.70407	3.3162	2.99359	2.83327	2.99824	5.41889	2.00268	2.27995	2.84272	2.33977	3.74697	4.67125
Cronbach's alpha	0.702	0.629	0.466	0.699	0.733	0.419	0.517	0.831	0.569	0.691	0.496	0.818	0.748	.766

Note:
**p<.01
*p<.05

ISBN 978-616-278-391-3

ACPES 2017
The 3rd International Conference on Physical Education, Health and Sport
ASEAN Council of Physical Education and Sport
"Best Practice for ASEAN+ Community: Enhancing Physical Activity, Physical Education, Sport, Health and Recreation"
2 - 5 September 2017
Saen Palm Convention Hall, Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom,Thailand
Hosted by: Kasetsart University

ACPES7

PANGINHAS: A CULTURAL DANCE OF BORACAY

M.J. GELITO,*[1]M.Y. GINOY[2]

[1]*Aklan State University, New Washington, Aklan, 5610, Philippines*

Abstract

This studyinterpreted the cultural and occupational practices of the local fishers in Bulabog Beach, Balabag, Malay, Aklanthrough a dance. Specifically, the studycreated dance stepsbasedfromprocesses of *Panginhas* or shell pickingnamely; *Pamueot*(picking), *Pag-sgos*(washing),*Panueo*(picking),*Pagsud-sud* (craning)and*Pagpili*(sorting). The studyutilized the ethnographicresearch design. Validity of the information wastakenthroughkey informant interview, participant observation and focus group discussion. The keyinformantswereeight (8) localswhostillpracticedshell picking for not lessthan 20 years. The respondentswereidentifiedthroughpurposivesamplingmethod. Qualitative data were gathered through interview using a semi-structured interview guide. Other data were gathered through participant observation and focus group discussion. The study was conductedfromSeptember 2016 to February 2017. *Pamueo*t or picking wasdone by bending the trunk to the ground to pick the shells and place in the net basket. *Pag-eusgos* or washingwasperformed by dipping the net basket in the sea and shakingit off to wash the shellsinside the basket. *Panueo* or picking wasperformedat night usingtorch or fuel lamp as source of light withsimilarmovements to *pamueot* or picking. *Pagsudsud* or craning was beingdoneduringhightideusing*sudsud*, a local made technologyfrombamboos or woods, to crane the shore and collectshells. *Pagpili* or sortingwasdone by segregating the usefulshellsfrom the unnecessary or not important shells. Through the result of the study, a dance literaturewascreated.

1. Introduction

Dance is an explicit way of determiningone'sbizarreness and custom.Folk dances are learned to understand and broaden the perceptions regardingdifferent cultures. It is in folk dancesthatwe observe the differentinterpretations of the dailylives of the Filipino such as livelihood, spiritual, ceremonies and festivals. The Province Aklanisveryrich in culture and traditions. The folk dancesfound in Aklanportray the usualactivitiesthat are beingpracticed in the townwhichusuallydepictsAkeanon's social lives, culture and tradition. Balabagis one of the barangays of Boracay Island. It becamepopularbecause of its fine beaches and crystalclear water thatboostedtourismindustry. Picking shellshad been the source of income of the locals in Boracay and soldit in the market. Emptyshellswerealsoused as decorations and evenleis to welcome the visitors in the island. Due to the fastgrowingtourismindustry and the changes in the demands, people are starting to losetheirinterest in it. Manylocalschoose to work in someresorts tocatertheirneeds. As a result, thereisa fearthatthis

ISBN 978-616-278-351-3

practice willsoonvanish and people mightforget to value and appreciate the gracethatthisislandoffers. The researchwasconducted to preserve the culture and traditions of the locals in Boracay. Hence, *Panginhas*or shellpickingwasstudied as one of the cultural practices of the Balabagnons in Boracay Island, through dance.

2. Experimental Work

The procedurein gathering the data includedthree stages of participation; pre-developmental stage, developmental stage, and post-developmental stage.The pre-developmental stage involved the collection of qualitative data from the keyinformantsthrough interview, focus group discussion, and participant observation. Based on the recorded information from the interview, the researcher sthentrans cribed and encoded the data.The developmental stage involved the interpretation of qualitative data, musical arrangement and propspreparation. The dance horeography was basedaccording to the body gesture and movement of the activitiesundertaken in the shell picking namely ; picking, washing, picking at night, craning and sorting.Thesewerethenинterpreted as dance steps and figures.Folk songsarranged by musical expert wereutilizedas the folk dance music inthe beat of time signature.Costumes weredesignedappropriatelyaccording to the preference of the dance and wascritiqued by experts. The propsusedwasbased on the inputs gatheredfrom the interviewee. Post-developmental stage involved the presentation of the dance to the dance experts for critiquing. All suggestions and comments by the jurorswereconsolidatedand appliedto finalize the dance.

3. Results and Discussion

Basedfrom the result of the study, the followingmovementswerecreated according to the processes of *panginhas*or shell picking:

1. Pamueot or picking -
Trunkbendforwardwithkneesbend in fourth position, left hand holding the basketbring down right hand to the floor as if picking a shell (ct.1),pulltrunkupward right arm in second position wristslightlyclosed (ct.2),shake right arm thrice (cts.1&2). Withfeet in first position, place right hand inside the basket as if putting the shells in (cts.1,2),shakethe basketwithkneesslightlybend and freehand on waist for boys and skirt for girls(cts.1&2).

Figure 1. Visual execution of picking

2. Pag-eusgos or washing–Feettogetherwithboth handsholding the basket in waistlevel, bendtrunkdownwardwithkneesbend (cts.1,2). Pull up and slightlybendkneeswithbotharms in right waist, shake the basket (cts.1&2). Bend trunkdownwardwithkneesbend (cts.1,2).Pull up and slightlybendkneeswithbotharms in leftwaist, shake the

basket (cts. 1&2).

Figure 2. Visual execution of washing

3. Panueo or picking at night – Trunkbendforwardwithkneesbend in fourth position, left hand is holding the driedcoconutleavesaboveheadlevel, bring down right hand to the floor as if picking a shell (ct.1), pull trunkupward right arm in second position wristslightlyclosed(ct. 2), shake right arm thrice (cts.1&2). Withfeet in first position place right hand inside the basket as if putting the shells in (cts.1,2), hold the basket withright hand and shakeitwithkneesslightly bend. (cts.1&2)

Figure 3. Visual execution of picking at night

4. Pagsudsud or craning– withboth hands holding the sudsudtaketwoslidesteps right and left (cts.1,2,1,2),slightlybendtrunkforwardwhiledoing the step. Executetwo slow bleke right and leftalternately in place (cts.1,2,1,2).

Figure 4. Visual execution of craning

5. Pagpili or sorting– Kneel on right while holding the basketwithboth hands tiltingtowards the dancer. Flip and shakethe basket twice (1&2,1&2). Hold the basket withlefthand tiltingtowardsthe dancer and withthe right hand, digin to the basket as if sorting the shells (ct. 1,2,1,2).

Figure 5. Visual execution of sorting

Costumesusedby the dancers were designed considering its authenticity and practicality. The props usedweremodified to suit in the actual execution of the dance. The researchersconsidered the authenticity andappropriateness of the costumes and props as critiqued by experts.

ISBN 978-616-278-391-3

Figure 6. Costume and props

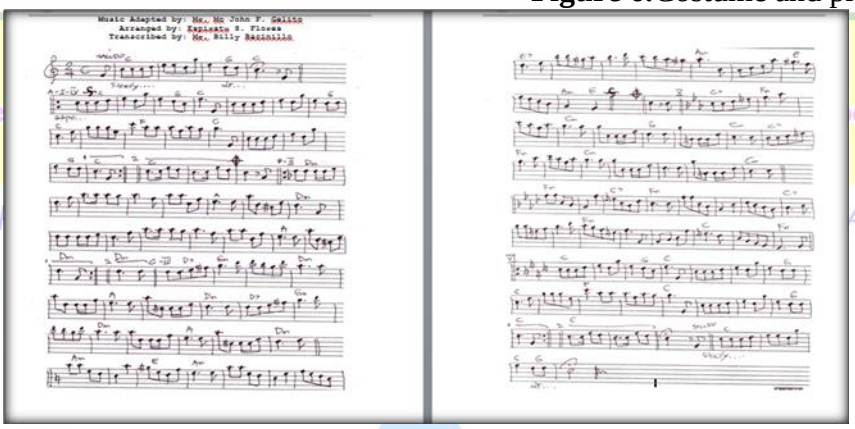


Figure 7. Musical Notations

4. Conclusions

A dance literature was created based from the processes of *panginhas* or shell picking. The literature consists of the following; background of the dance, movements particular to the dance, dance properties,musical accompaniment, dance figures and musical notations.

References

[1] Acevedo, E.F. Pahid sa Marapayao 2005. SAYAW. Philippines.
[2] Aquino, F.R. Philippine Folk Dance 1996 Vol.1-6 Manila. Philippines
[3] Cloma, G.Pang-agihis: A Folk Dance Interpretation 2014. UnpublishedThesis. Aklan State University, Banga, Aklan.
[4] Dance. http://www.ehow.com/about 6535053 brief-history-philippines-folk-dance.html#ixzz2uix45YnQ.
[5] Lachica A.I. Pagbayang: A Local Dance of Lezo, Aklan 2014. UnpublishedThesis. Aklan State University, Banga, Aklan.
[6] Le Compte, M. and Schensul, J. Designing and Conducting Ethnograpic Research: An Introduction. Vol. 1 of EthnograpicToolkit, Second Edition. Retrieved September 2, 2016. fromHttp://books.google.comph/books/about/Designing_and_Conduct_ing_Ethnograpic_Re.html?id=jlxBxkP0JKAC&redi_esc=y
[7] Masangkay, E. Kiriwkiw 2003. SAYAW. Philippines.

ISBN 978-616-278-391-3

ACPES 2017
The 3rd International Conference on Physical Education, Health and Sport
ASEAN Council of Physical Education and Sport
"Best Practice for ASEAN+ Community: Enhancing Physical Activity, Physical Education, Sport, Health and Recreation"
2 - 5 September 2017
Saen Palm Convention Hall, Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom,Thailand
Hosted by: Kasetsart University

CPES19-Full

EFFECT OF L-CARNITINE SUPPLEMENTATION AND AEROBIC TRAINING ON VO_2MAX IN SOCCER PLAYERS

P. Suphat,*[1] T. Napatsawan [2]

[1] *Mahasarakham University, Education of Sport science, 44150, Thailand*
[2] *Mahasarakham University, Education of Sport science, 44150, Thailand*

Abstract

L-carnitine has been used as an aid to improve aerobic training (i.e., increase VO_2max and endurance performance), with positive findings reported in some studies concerning healthy in athletes. Meanwhile in Thailand there has a limited information about the effect of L-carnitine on VO_2max in soccer players. Therefore, the aim of this study was to (1) compared before-after effect of placebo and L-carnitine supplemented and aerobic training on VO_2max within the group (2) investigated the difference before-after between 2 groups of L-carnitine and placebo supplemented and aerobic training on VO_2max in soccer players. Healthy and well-trained 20 voluntary male athletes (16-18 years old) played for a sport school of Khonkean province, Thailand. Participants were sampling random and after that matching method in two groups as the control (placebo, n=10) and experiment (L-carnitine, n=10) groups. This study was a pre-experimental one-group pretest-posttest study approved by the university ethics committee in accordance with the Mahasarakham, Thailand. On the day of the test, before intake placebo or L-carnitine of the athletes for astrand cycle test recorded and the VO_2max after the exercise. Athletes in the control and experiment group were treated with 2 grams of placebo and L-carnitine per day for 4 weeks. Then recording effect of placebo and L-carnitine after intake and aerobic training on VO_2max in athletes. Statistical analysis was performed using paired and independent T-test ($P<0.05$). The study finding is that L-carnitine supplementation does not effect on VO_2max in athletes, however L-carnitine tend to have a good performance on exercise in athletes. Thus, the future studies could perfrom an experiment with 3 and 4 doses of L-carnitine supplement and control the food in athlete.

Keywords: L-carnitine, placebo, VO_2max (oxygen consumtion), aerobic training, soccer player

1. Introduction

L-carnitine is a naturally occurring compound derived from the diet, primary sources of dietary L-carnitine red meat and dairy products; however, commercially produced supplements are also available and have been shown to be safe in humans [1]. L-carnitine is found in all of the body cells and is

particularly abundant in skeletal muscle and myocardium. It is taken into the body through diet or is biosynthesized within the body (liver and kidneys), requiring lysine, methionine, vitamin C, vitamin B6, niacin, and catalysis reaction enzymes [2], [3], [4]. Biologically, L-carnitine is essential for the transport of long chain fatty acids across the outer and inner-mitochondrial membranes [5]. In addition, L-carnitine is one of many supplements that have been reported to possess beneficial protection of physical performance in various conditions such as advanced cancer, fatigue [6] inherited neuro-metabolic disorders [7], maple syrup urine disease [8], intermittent claudication [9], metabolic syndrome, and cardiovascular disease [10]. Several studies have shown that L-carnitine is effective in controlling oxidative stress, holding an antioxidant effect, even after a single oral dose administration (2g), by increasing the plasma concentrations of superoxide dismutase, glutathione peroxidase, catalase and total antioxidative capacity [11].

In the field of sports nutrition, L-carnitine is consumed in most countries that believe in the positive effect of its supplementation on athletic performance [12],[13]. L-carnitine is widely used by athletes as an ergogenic aid to enhance exercise performance and to reduce oxidative stress [14], [15]. Athletes have had a longstanding interest in L-carnitine administration for purposes of increasing physical performance from ATP generation, with various forms of L-carnitine used. Previous evidence proposed that during intensive physical activity, muscle L-carnitine is redistributed in muscle and increases fatty acid oxidation in healthy subjects under normal conditions [16]. There are many studies of trained athletes L-carnitine such as reported the dose and duration of L-carnitine supplementation in both trained and untrained people, showing controversial results. The supplement dose of 2 g per day taken orally for 14 or 28 days was studied in untrained subjects, and it had no effect on VO_2max [17]. The study of Natali et al. [18] reported that 40 minutes after 12 active males had received 3 g of L-carnitine intravenously, oxygen consumption (VO_2max) did not change significantly, but increased fatty acid oxidation occurred during recovery from bicycling exercise. L-carnitine supplementation leads to overall increases in free L-carnitine that does not decrease during maximal exercise [19] According to literature data, it can be concluded that doses ranging from 1-5 g per day are effective to enhance performance exercise and control oxidative stress both in acute and chronic administration. Since only a limited number of studies have focused on the safety of high dose administration of L-carnitine, it is difficult to establish an optimal mode of administration.

Although, many existing studies have been conducted on the impact of L-carnitine loading on maximum oxygen consumption (VO_2max), speed in athletes and non-athletes in abroad. However, in Thailand, there are few L-carnitine researches. The purpose of this study, therefore is to (1) compare before-after effect of L-carnitine and placebo supplementation and aerobic training within group. (2) investigate difference before-after between 2 groups of L-carnitine and placebo supplementation and aerobic training on VO_2max in soccer players.

2. Experimental Work

Study Participants:
Subjects in this study were 20 male volunteers who were 18to 20 years. They were professional soccer playersin sports school of Khonkean province. However, they were not eligible to participate in the

study if they: a) had drug or alcohol abuse or allergy to components of l-carnitne, and those who had any kind of concomitant drug therapy were also excluded; b) used any nutritional supplements (i.e. canitine, protein drinks, caffeine, vitamins) at least 4 weeks before the study was conducted; and c) enrolled in another trial or ingested another experimental product at least 30 days before screening and enrollment. All the subjects were informed verbally and via written documents about the nature and demands of the study., Subsequently, they completed health history questionnaires and gave their written informed consent. The study protocol was approved by the university ethics committee in accordance with the Mahasarakham University, Thailand.

Study design:

In this study, Simple random sampling was used. Two groups were selected by matching method, control group (placebo, *n*=10) and experimental group (L-carnitine, *n*=10). The subjects ingested during 4-week supplementation periods. The control and experimental group supplementation dose of 2 grams placebo and L-carnitine per day were used. Moreover, they have been doing aerobic exercise training every day. Before and after of supplementation periods, all the subjects performed cycle ergometer testing according to astrand submaximal protocol of 20 minute cycle test. Test maximal oxygen consumption (VO_2max) was calculated by the formula of astrand protocol before and after the experiment.

Statistical Analysis

The paired sample t test was used in the study to compare pre and post supplementation and aerobic training measurement of VO_2max. The significance level is 95% (P-value <0.05). Moreover, the comparisons were made between before and after 2 groups which were used for independent t-test measurement of VO_2max. The significance level is 95% (P-value <0.05) as well.

3. Results and Discussion

The primary purpose of this study was to examine the effect of supplementation with 2 grams of placebo and L-carnitine per day for 4 week and aerobic training on VO_2max in soccer player. As Table 1 showed, there was significant difference on VO_2max within group after 4 week. Both placebo and L-carnitine groups showed significantly (P <0.05) high change on VO_2max in soccer players.

Table 1. Comparison effect of placebo or L-carnitine supplementation on VO_2max and aerobic training in soccer players, within group.

Time	Groups									
	Control (placebo 2 g)					Experimental (L-carnitine 2 g)				
	N	Mean	SD	t	p-value	N	Mean	SD	t	p-value
Before	10	49.18	8.22			10	49.22	5.99		
After	10	53.33	6.52	-3.18	0.011*	10	54.55	4.23	-4.64	0.001*

Note: *critical value at (P< 0.05)

ISBN 978-616-278-391-3

Table 2 shows the comparison between 2 group. There was no significant difference on VO_2max of control and experimental groups within 4 weeks and aerobic training. Thus, our study finding demonstrated that L-carnitine supplementation has no effect on VO_2max in athlete. This finding is consistent with other studies which have also reported that L-carnitine supplementation would not lead to any changes in the levels of plasma glucose, blood pressure, VO_2max and other physiological parameters or blood circulation metabolites [20], [21]. Also Erglo's study (2008) showed that supplementation of 2 grams of L-carnitine would not lead to any changes in maximal oxygen consumption, blood lactate levels, and other metabolic factors [22].

In this study, the result showed that the VO_2 increases dramatically when the aerobic training is practiced. Based on the existing literature, there is a study which aligns with our result. In that study, 14-kilometer continuousm running was able to reduce oxidative stress when the exercise was significantly increased [23]. VO_2max of our subjects was high in this study, possibly indicating the reason why 14-kilometer running has been able to initiate exercise induced oxidative stress.

Table 2. Comparison between before and after VO_2max for control and experimental group of participants at the end of 4-week training.

Groups	N	Mean	SD	t	p-value
Control (Placebo)	10	53.33	6.52	-0.494	.627
Experimental (L-carnitine)	10	54.55	4.23		

4. Conclusions

The results showed that when 2 groups were compared either placebo or L-carnitine given 2 grams per day, VO_2max was significantly increase which was confirm by the statistics testing. However, by comparing the difference between 2 groups of control and experiment on VO_2max, they were not significantly different. Anyway, there was a tendency that the VO_2max was highly increased when aerobic exercise training was practiced. Therefore, the findings of this study indicate that L-carnitine supplementation (2 grams) has no effect on VO_2max, but the aerobic training would highly increase the maximum oxygen uptake (VO_2max) in both athletes and non-athletes. Most of these researches have reported there were improved VO_2max and enhanced exercise performance in privileged athletes as well as non-professional ones following supplementation of L-carnitine, especially after taking high doses in longer terms [24, [25]. Daily intake more than 2 grams L-carnitine brings substantial increases in maximum oxygen uptake.

References

[1] Orer, E and Guzel, NA. The Effects of Acute L-carnitine Supplementation on Endurance Performance of Athletes. J Strength Cond Res. 2014; 28: 514-9.
[2] Vaz, MA and Wanders, RJ. Carnitine biosynthesis in mammals. Biochem J. 2002;

417-9.

[3] Bain, MA, Maline, RW and Evans, AM. Disposition and Metabolite kinetic of oral L-carnitine in human. J Clin Pharmacol. 2006; 46, 1263-0.

[4] Tsakiris, T, Other, BC. Effect of L-carnitine administration on the modulated rat brain protein concentration, acetylcholinesterase, Na+K±ATPase and Mg2±ATPase activities induced by forced swimming. Br J Sport Med. 2008; 42, 367-2.

[5] Kraemer, WJ, Other, BC. L-Carnitine Supplementation: A New Paradigm for its Role in Exercise. Chem Monthly. 2005; 136, 1383-90.

[6] Gramignano, G, Other, BC. Efficacy of l-carnitine administration on fatigue, nutritional status, oxidative stress, and related quality of life in 12 advanced cancer patients undergoing anticancer therapy. Nutrition. 2006; 22, 136–45.

[7] Malaguarnera, M, Other, BC. Acetyl L-carnitine (ALC) treatment in elderly patients with fatigue. Arch Gerontol Geriatr. 2008; 46, 81–90.

[8] Ribas, GS, Vargas, CR and Wajner, M. L-carnitine supplementation as a potential antioxidant therapy for inherited neurometabolic disorders. Gene. 2014; 533, 469–76.

[9] Mescka, CP, Other, BC. L-Carnitine supplementation decreases DNA damage in treated MSUD patients. Mutat Res. 2015; 775, 43–7.

[10] Delaney, CL, Other, BC. A systematic review to evaluate the effectiveness of carnitine supplementation in improving walking performance among individuals with intermittent claudication. Atherosclerosis. 2013; 229, 1–9.

[11] Cao, Y, Other, BC. Single dose administration of L-carnitine improves antioxidant activities in healthy subjects. Tohoku J Exp Med. 2011; 224, 209-13.

[12] Pekala, J, Other, BC. L-carnitine-metabolic functions and meaning in humans life. Curr Drug Metab. 2011; 12, 667-78.

[13] Traina, G. The neurobiology of acetyl-L-carnitine. Front Biosci. 2016; 21, 1314-329.

[14] Su, CC, Other, BC. L-carnitine ameliorates dyslipidemic and hepatic disorders induced by a high-fat diet via regulating lipid metabolism, self-antioxidant capacity, and inflammatory response. J Funct Foods. 2015; 15, 497-508.

[15] Sung, DJ, Other, BC. Role of l-carnitine in sports performance: Focus on ergogenic aid and antioxidant. Sci & Sports. 2016; 31, 177-88.

[16] Muller, DM, Other, BC. L-carnitine supplementation on in vivo long-chain fatty acid oxidation in healthy adults. Metabolism. 2002; 51,1389–91.

[17] Mojtaba, E, Other, BC. Fat metabolism and aerobic capacity does not effect by acute L-carnitine L-tartrate supplementation. J Appl Environ Biol Sci. 2011; 1, 695-9.

[18] Natali, A, Other, BC. Effects of acute hypercarnitinemia during increased fatty substrate oxidation in man. Metabolism. 1993; 42, 594–600.

[19] Nuesch, R Rossetto, M, and Martina, B. Plasma and urine carnitine concentrations in well-trained athletes at rest and after exercise. In : Traina G, Editor. Influence of L-carnitine intake. Drugs Exp, New York : Landmark ; 2016, p. 1314-1329.

[20] Oyono-Enguelle, S, Other, BC. Prolonged submaximal exercise and Lcarnitine in humans. Eur J Appl Physiol Occup Physiol. 1988; 58, 53-61.

[21] Wyss, V, Ganzit GP, Rienzi, A. Effects of L-carnitine administration on VO_2max and the aerobic-anaerobic threshold in normoxia and acute hypoxia. Eur J Appl Physiol Occup Physiol. 1990; 60, 1-6.

[22] EroGlu, H, Senel, O, GUzel, NA. Effects of acute L-carnitine intake on metabolic and blood

lactate levels of elite badminton players. Neuro Endocrinol Lett. 2008; 29, 261-6.

[23] Nakhostin, RB, Other, BC. Effect of chronic supplementation with methylsulfonylmethane on oxidative stress following acute exercise in untrained healthy men. J Pharm Pharmacol. 2011; 63, 1290.

[24] Wachter, S, Other, BC. Long-term administration of L-carnitine to humans: effect on skeletal muscle carnitine content and physical performance. Clin Chim Acta. 2002; 318, 51-61.

[25] Soop, M,Other, BC. Influence of carnitine supplementation on muscle substrate and carnitine metabolism during exercise. J Appl Physiol. 1988; 64, 2394-9.

ISBN 978-616-278-391-3

ACPES 2017
The 3rd International Conference on Physical Education, Health and Sport
ASEAN Council of Physical Education and Sport
"Best Practice for ASEAN+ Community: Enhancing Physical Activity, Physical Education, Sport, Health and Recreation"
2 - 5 September 2017
Saen Palm Convention Hall, Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom,Thailand
Hosted by: Kasetsart University

ACPES23-Full

DEVELOPMENT OF MANIPULATIVE BASIC MOTION LEARNING MODEL AT MENTALLY RETARDED ELEMENTARY SCHOOL IN MEDAN CITY

RatnaDewi

Lecturer of Sport and Health Academy Bina Guna Medan

Abstract

Adaptive physical education is a vehicle that provides Children with Special Needs learning about various theoretical and practical theoretical material. Adaptive physical education also presents a variety of sports activities tailored to the characteristics of children with special needs, including blind, deaf, learning disabilities, orthopedically handicapped, and conduct disorder. Characteristics of children with special needs are based on formal education or special schoolsare classified into several categories. While other types, still have the opportunity to be able to formal education in regular schools.

Also, with the phenomenon contained in the city of Medan, which have the number of learning disabilities more than any other type of School For Student with Special Needs category. Based on observation result, sport activity for children with special needs in, especially in category learning disabilities in Medan is still less varied. Sports activities, especially basic motion that is less varied, will certainly result in the students (children with special needs) feel bored. If you feelbored,the direction and purpose of learning more difficult to achieve. Therefore, to accommodate learning, especially in the realm of adaptive physical education, it is necessary to undertake various forms of development of existing sports activities specifically, especially at an early age. It is aimed to master sustained basic motion based on certain age stages, either in curative or in terms of achieving the best achievement in various special needs children's championship at district and provincial level.

The method used in this research is the type of research & development. Research & development (R & D) aims to create a product that is intended to overcome a problem in the field. The products that try offered by researchers in the form of manipulative basic motion game package intended for studentsof learning disabilities at elementary level (elementary school). The product will be packaged in the implementation guide as well as the VCD game implementation tutorial. This game package is considered capable of being a good introduction before students (Student with special need) leads to more complicated material. Where students will get the sensation of playing while learning to implement basic manipulative motion, before students do the sports. In the first year, researchers compiled a basic manipulative motion game for elementary school students, and the second year, the researchers measured the level of influence of the manipulative base motion to the learning outcomes of the learning disabilities students.

ISBN 978-616-278-391-3

Keywords: Learning Disabilities, Development of Basic Manipulative Motion, Student Learning Outcomes

1. Introduction

Adaptive physical education is one of the areas of learning at the college level that explores thoroughly the activities of sports for Children with Special Needs. Where in each material, of course always relate to various studies on what and how to guide and guide children with special needs when in the process of sports activities. The material presented in the adaptive physical education field refers to the curriculum used by the Extraordinary School. Therefore, plays a very crucial role in specifically determining the menu of selected material to fit the learning objectives. Not only that, the role of teacher pemas is also not less important in running the curriculum process. Because she is specific teacher who knows and understands the situation, both in class and in the field. Thus, as a prospective teacher pemas, each student is required to be able to understand and master the management of children with special needs when in the process of sports activities both in determining the material to the value of each student.

Student with special need has very unique characteristics, where there should be special treatment based on certain criteria. Special treatment obtained by each student with special need is intended to accommodate the need for each crew to experience the same learning movement development. Although not infrequently, the facts on the ground shows that the development of motion of each crew is very diverse. This is caused by various factors, one of which is the type of disability of each student with special need varied, even on the same type of disability, did not rule out the crew also has different levels of disability. Because in every type of disability owned by student with special need is composed again from several levels.

Any type of disability held by student with special need should be handled and managed with different techniques. Starting from the type of healing physically and psychologically to the type of formal education pursued. The diversity of these types of disabilities learning school indicates the diversity of sports activity material performed on each disabilities learning school. We need to study in depth and continuously to the material of sport activity in disabilities learning school, so that every disabilities learning school receive the right material in order to reach the goal of learning as a whole.

Broadly speaking, the number of disabilities learning school in all parts of Indonesia is fairly small. The characteristics of disabilities learning school are also very varied, both managed by public and private parties. Basically every disabilities learning school has certain advantages and disadvantages. This is based on a certain pattern of organization. If managed in a good way, it will also get good results. Where every disabilities learning school has various policies that vary, of course also will result in a variety of decisions as well. Therefore, starting from the owner, until the teachers certainly play a very important role for the success of an disabilities learning school. One of the things that can be a parameter of the success of an disabilities learning school is the high number of students owned or achievement of disabilities learning school students. Although not closing other factors that are also no less affect. Thus, disabilities learning school would be the main choice for parents who have a crew to not hesitate to place their children in an disabilities learning school.

The role of disabilities learning school is very large for vehicle education ABK, certainly must be balanced with the strengthening and improvement of quality / quality of adaptive learning. But from

the existing phenomenon, disabilities learning school as if just a place to fill the spare time for the crew. This is clearly contradictory for the primary purpose of education in formal schools. Let alone to get achievement out of school, just to get comfort in school even student very difficult. This can be seen from the arguments triggered by most parents of disabilities learning school students. However, it also can not be denied that the management of such disabilities learning school is also influenced by financing factors that are not qualified. The simplest impact is the number of professional teachers in the field of extraordinary education became increasingly limited. With a limited number of professionals, of course the teaching-learning process will also run less than the maximum.

Not much different from other regions in Indonesia, the terabenenya medan city is the third largest city in Indonesia also has several variants of the disabilities learning school with various status as well. So far, disabilities learning school in Medan city plays an important role in accommodating student with special need who live in the city, or outside the city of Medan. While other types of disabilities learning school are still not able to realize. This is certainly caused by various factors, both technical and non-technical factors.

Because simply, from the type of disability, the disabled is considered more capable of accepting cognitive learning, although it is most likely very difficult to accept the motor lesson as a result of the limitations of the tool in general. Whereas in the type of children disability learning, which specifically have limitations cognitive and motor.

With a more superior amount, students with disabilities in the city of Medan certainly felt very necessary to note in particular, given the phenomenon contained in the city of Medan is also not much different from some other cities in the territory of Indonesia. In particular, this form of attention can be an improvement in the quality of learning that is cognitive, as well as development in motor learning. When talking about attention in motor learning, there are certainly some things that need to be addressed. One of them is very crucial that is about motor learning materials. Because during this time, motor learning activities in the form of physical education is still somewhat less varied. Where the activities of sports is only done without a clear purpose and direction. Activities of sports activities only complement the activities of cognitive learning. In fact, various forms of physical motion activity have little to do with the cognitive development of students. Because with regular exercise regularly and continuously, students are predicted to more easily digest the material that is cognitive. Because when the physical activity, the body will react well, a result of smooth flow of blood throughout the body, especially toward the brain. Of course with the smooth flow of blood to the brain, it is likely that the development of cognitive student with special need in disabilities learning will also experience a good stimulus as well. Therefore, it is necessary to prepare a material that can stimulate basic movement from an early age. Because at an early age, in this case elementary school , brain absorption, even for the crew though, certainly more easily absorbed than when it was the age of adulthood. Therefore, in order to match the characteristics of early age in the mentally handicapped students, the learning materials of the motor must contain the activities of the game. Because the activity of the game is considered to make the students with disabilities become more enthusiastic, considering the early age is a period in which a human should get as much play activity as possible. Manipultive basic motion game has also been adapted to the characteristics of students who are not mentally disabled student with special need who have limitations both cognitive and psychomotor.

ISBN 978-616-278-391-3

Therefore, it is necessary to conduct an in-depth study to build a good and correct concept in preparing physical education materials in disabilities learning formal school especially for students with disabilities learning in the city of Medan. This study is claimed to provide a complete refresher on the development of physical education in order to achieve the goal of improving learning outcomes within the school, as well as achievement out-of-school achievement. To answer the idea, of course it is necessary to formulate some formulation of the problem, among others; 1) how is the role of physical education teacher to the learning process of sport in disabilities learning formal school Medan city ?, 2) how the concept of game development design for manipulative basic motion for students with disabilities learning in Medan city; 3) how to benefit from the development of motion game Basic manipulative for learning outcomes of students disabilities learning in the city of Medan? Thus, based on the formulation of the problems that have been compiled, of course the long-term goals will contribute to students with mentality in the city of Medan, either to simply increase the learning outcomes within the school, and to achieve maximum achievement in the school.

CHAPTER II
REVIEW OF RELATED LITERATURE

A. Model Development Concept

Research development is a starategy of research method that is quite powerful. Research development is the research used to produce a particular product and test the effectiveness of the product. Research can be divided into several forms namely basic research, applied, evaluation, development and urgency. In various studies based on the function and application in education and how long the results can be used. One of the relevant research models and can always be used is development research, development research encounters patterns, growth sequences and mainly has the intent to develop teaching materials for schools. The development of teaching materials is textbooks, props, math modules and so forth. Research development is a study that is not used to test the theory. Products produced, tested in the field and then revised until the results are satisfactory. According to Sukmadinata research and development is a process or steps to develop a new product or refine existing products, which can be justified. Gay in Asim explains development research is an attempt to develop an effective product that is used in the School, not to test theory.

Dwiyogo also outlines the steps of the product development process described by Dwiyogo including needs analysis, product development, and product testing. These three steps show the sequence of time and activities. Research development is a research approach that is connected to the work of design and development and has a goal for development in the design of the learning environment, the formulation of the curriculum, and the assessment of the success of observation and learning simultaneously / planned, so that role in understanding scientific fundamental.

Research development is not to detail and implement comprehensive interventions, but to enhance and adapt innovative needs and aspirations. The development research process is circular or spiral starting from the activity of analysis, designing, evaluating and revising to the desired destination.

The previously defined definition of development research is a study based on the creation of an effective product, beginning with needs analysis, product development, and product testing. In this case the research to be developed is the basic motion learning model jump for elementary school.

ISBN 978-616-278-391-3

B. The Model Concepts Developed

1. Understanding Model

The model illustrates the broadest level of educational practice and contains an orientation of the learning philosophy. Models are used to select and organize learning strategies, skills methods, and learning activities to put pressure on one of the learning sections. Joyce et al identified four models, namely: (1) Information process model, (2) personal model, (3) interaction model and (4) behavior model.

The model is defined as a conceptual framework used as: (1) a design type; (2) a description or analogy used to help visualize something that can not be directly observed; (3) a system of assumptions, data, and inferences used to describe mathematically an object or event; (4) a simplified design of a work system, a simplified translation of reality; (5) a description of an imaginary system; And (6) the presentation of minimized data in order to explain and show the nature of the original form. Joyce et al reveals that the learning model is a plan that can be used for curriculum (long learning materials), designing learning materials, and to deliver learning inside and outside the classroom. Joyce et al further explains that the learning model is a planning process used as a guide in planning classroom lessons or learning in tutorials and for determining learning tools and directing us to assist the learner in such a way that the goal is achieved.

The model as described by Richey is a picture arising from the fact that it has a sequence of order. He says the model can be used to organize various sources and then be used as a stimulus to develop hypotheses and build theory into concrete terms to apply them to practice or test theory.

Models are real world abstractions or representations of complex events or systems in the form of narrative, mathematical, graphical or other symbols. According to Nadler the model is not the reality of themselves, but is a representation of the reality developed from their circumstances. He thinks everyone can design models that try to make his thoughts about the world around him every day. Without the model, people will have problems in solving the problems of everyday life.

Based on the opinions above, then in this research and development is a model of the steps that include analysis, development, manufacturing materials and evaluation in order to provide ease to achieve goals.

2. Learning Model

Development of learning model is a series of processes or activities undertaken to produce a model of learning based on existing development theory. Learning model is the use of learning system approach. Many models of learning are developed by experts in their fields, each model has different characteristics and different uses. Basically all the learning models developed are aimed at improving learning outcomes.

Development of a good learning model tailored to specific conditions. This condition is a small or complexity of an educational institution, the scope of duties of educational institutions, and the ability of managers. Joyce explains that the learning model is a plan used as a guide in planning the learning in the classroom or learning in the tutorial and to determine the learning tool and direct us in designing the learning to assist the learner in such a way that the learning objectives are achieved. Learning model is a step pattern that includes analysis, development, and evaluation of learning outcomes in order to provide ease of students to achieve results.

C. Theoretical Framework

1. Learning Concept of Physical Education

Physical education is essentially an educational process that utilizes physical activity to produce a change in the quality of the individual, both physically, mentally, and emotionally. Physical education emphasizes the whole aspects of education (health, physical fitness, critical thinking skills, emotional stability, social skills, reasoning and moral action).

Physical education is an integral part of an overall education that contributes to growth and development in every child.

In Fors's opinion: "Physical education is an integral part of education as a whole that contributes to individual development through the medium of physical activity of human motion, all sequences of learning experience carefully designed to meet the growth, development and behavior of every human being."

Physical education according to UNESCO in "international charter of the physical of education and sport" as follows: physical education is a process of education a person as an individual or a member of society is done consciously and systematically melalaui various physical activities in order to improve the ability and skills of the body, the growth of intelligence And the formation of character.

Physical education is "physical education" by participating in physical activity, students can master skills and knowledge, develop asthetic appreciation, develop generic skills as well as fossilized attitudes, and improve physical conditions to achieve physical education goals.

When viewed from per definition, physical education is defined by various phrases and sentences. But the essence is the same, which if it is concluded that it is clear that physical education utilizes the physical to develop the intellectual, mental, emotional and moral aspects developed with considerable emphasis.

2. Purpose of Physical Education

.Syarifuddin and Muhadi explain that: the general goal of physical education in elementary school is to spur on physical, mental, emotional, and social development, which harmonize in the effort to form and develop basic motion skills, instilling values, attitudes and healthy living habit.

The aforementioned can be described as follows: (a) spur the development and activity of the system: the circulation of blood, digestion, breathing and nerves, the development of organs (b) stimulate physical growth such as height gain and weight, (c) inculcate the values of discipline, Cooperation, sportsmanship, tolerance, (d) improve the skills of physical activity and have positive attitudes toward the importance of physical activity; (e) increase physical fitness; (f) increase knowledge of physical education; (g) inculcate the penchant for doing Physical activity.

The purpose of physical education is covered by the above explanation, which is to provide opportunities for children to learn various activities that foster and develop the potential of children, both in the physical, mental, social, emotional and moral aspects. Physical education aims to develop the potential of every child as high as possible.

Cognitive development includes knowledge of facts, concepts and, more importantly, reasoning and problem-solving skills. The cognitive aspect in physical education, not only involves the mastery of factual knowledge solely, but includes the understanding of motion and principle phenomena, as well as the scientific basis of physical education as well as the benefit of the filling of free time.

Psychomotor development in general can be directed to two main purposes: first to develop the physical fitness aspect, and second to the development of the perceptual aspects of motor. This confirms that physical education learning must involve physical activity that is able to stimulate

ISBN 978-616-278-391-3

physical fitness ability and at the same time is the formation of motion control rather than the skill itself.

Affective development encompasses the scope of psychological attitudes that are an ingredient of staunch personality. The attitude of readiness to do that needs to be developed, but more important is the concept of self and other personality components, such as inlegensi, emotional and character. The concept of self concerns the perception of self or the judgment of a person about kelebihanya and its shortcomings. Self-concept is the foundation of the child's personality and is strongly believed to have something to do with their growth and development as adults later.

These three objectives (cognitive, psychomotoric, affective) can be concluded that which is the purpose of guidelines for physical education teachers in carrying out teaching and learning tasks. These objectives should be achieved through well-planned, planned, organized, programmed, sustainable and mature learning activities, with guidance on the physical education sciences.

3. Function of Physical Education

Physical Education has a very important aspect, including: organic aspects, neuromuscular aspects, perceptual aspects, cognitive aspects, social aspects and emotional aspects. The five aspects of the researcher will outline the following as follows:

Organic aspects: (a) make the body system functions better so that the individual can adequately meet the demands of his environment and has the foundation for skill development; (b) increases the strength of the maximum amount of energy mobilized by muscles or muscle groups; (c) increases power Resistant muscles or muscle groups to retain long-term work, (d) increase cardiovascular endurance, individual capacity to perform continuous heavy activity over a relatively long period of time, (e) increase flexibility, ie: range of inner motion Joints needed to produce efficient movements and reduce injury.

Neuromuscular aspects: (a) promote harmony between nerve and muscle function, (b) develop locomotor skills, such as: walking, running, jumping, jumping, gliding, stepping, pushing, grasping / digging, rolling, and pulling) Developing non-locomotor skills, such as: swinging, turning, bending, swaying, stretching, bending, hanging, bending, (d) developing manipulative basic skills, such as: hitting, kicking, catching, stopping, throwing, changing direction, (F) develops sports skills, such as: soccer, softball, volleyball, basketball, baseball , Athletics, tennis, martial arts and so on, (g) developing recreational skills, such as, exploring, climbing, camping, swimming and more.

The perceptual aspect: (a) develops the ability to accept and distinguish signals; (b) develop relationships relating to place or space, ie the ability to recognize objects that are in front, back, down, right or left side of themselves;) Develops coordination of visual motion, ie: the ability to coordinate views with motion skills involving the hands, body, and / or feet, (d) develops body balance (static and dynamic), namely: the ability to maintain static and dynamic balance, (e) develops dominance (F) develops laterality, namely: the ability to distinguish between the right and left sides of the body and between the inner right or left of the body itself, the consistent use of the right or left arm in the throw or kick, (G) develop a body image (body image), ie awareness of body parts or whole body and its relation to place or space.

Cognitive aspects: (a) developing the ability to dig, discover, understand, acquire knowledge and make decisions, (b) improve the knowledge of game rules, safety and ethics, (c) develop the ability to use strategies and techniques involved in organized activities, (D) increasing knowledge of how the body functions and its relation to physical activity, (e) appreciating the performance of the body; Use of

ISBN 978-616-278-391-3

considerations related to the distance, time, place, shape, velocity, and direction used in implementing the activity and itself, (f) enhancing the understanding of solving developmental problems through movement.

Social aspects: (a) adapting to others and the environment in which they are, (b) developing the ability to make judgments and decisions in group situations; (c) learning to communicate with others; (d) developing the ability to exchange ideas and evaluate ideas in groups (E) develop personality, attitudes, and values in order to function as a member of society, (f) develop a sense of belonging and sense of acceptance in society, (g) develop positive personality traits, (h) learn to use leisure time constructively , (I) develop an attitude that reflects good moral character.

Emotional aspects: (a) developing a healthy response to physical activity, (b) developing positive reactions as spectators, (c) releasing tension through appropriate physical activity, (d) giving channels for self-expression and creativity, (e) Aesthetic experience of relevant activities.

4. Basic Motion Skills

Maturity of motion is something that can not be underestimated because it concerns human survival and should receive serious attention. Good movement and physical quality will affect the quality of human life as a whole, because humans are living creatures that continue to move to maintain its survival, the development of quality of human motion based on the development of age normally will continue to grow until the peak of optimal growth of motion.

Motion skills for elementary school students are basic motion skills. Pangrazi mentions that "basic skills are useful skills that children need as a means of life and attitude." This group of skills is also called functional skill, meaning that this skill becomes the foundation for the activities of children in the environment and forms the basis of a competent movement.

The process of the formation of motion does not occur automatically, but is the accumulation of learning and training, namely by understanding the movement and perform repetitive motions accompanied by awareness of movement performed. Therefore motion skills are the ability to perform movements epesien and effective.

According to Dadang masnun basic motion or motion is a motion model that became the basis of a more complex motion skills. The basic movements are running, jumping and throwing movements that are adapted to the characteristics of human anatomy, so that no injury and harm occur to the growth and development of the human body, especially those that occur in growing children.

In general, basic motion is classified into locomotor motion (locomotor), stable motion (stability), and manipulation (manipulation). Children aged 6-14 years are an important developmental age in the development and enrichment of motion coordination, so it will be their will to develop in a more complex motion so useful in the future.

A person can master a complex motion skill will be greatly influenced by his basic motion experience. The development of basic motion skills is the basis of the development of motor skills in children so that it will be a determinant of the development of further motion skills to a more complex motion that will be used for the life of the individual concerned.

There are three categories of basic motion assessment that is the initial stage of the development of the motion (initial), the basic stage of motion (basic) and mature stage of motion (mature). Based on the stages of development of movement in children. Primary school age should they enter the category of mature in the motion jump and it means all the basic motion that exists. But because they do not get

ISBN 978-616-278-391-3

directions can be children aged 6-7 years or age children of class III or V elementary school can not master the mature motion.

The development of Primary School-age motion is an important concern, because at this age the child is experiencing the peak of motor growth, as described in Figure 2.4 in children aged 5 years (pre-school age) is said as the first growth peak (1st grow Peak) until the age of 13 years (2nd growth peak) is the golden age for students at school (golden age of learning).

Primary school-aged children should be provided with learning and improvement of movement when necessary, from parents as well as physical education teachers in schools where the children receive physical education lessons. With serious and continuous handling, it is expected that the quality of movement and awareness to keep their physical fitness continuing until they grow up, so that their work performance or productivity will increase.

The learning of motion and physical activity given gradually and gradually will have an effect on the optimal development in each stage of development according to the age of the child, so that this process is a stage of physical and physical maturity that lead them to the peak condition of physical development.

5. Learning Materials

According to Anis Fauzi, Rifyal Ahmad Lugowi "Material Learning is the material used to achieve learning objectives and indicators". Meanwhile, according to John Dewey in sofan learning materials and reflective methods in solving problems, namely the process of thinking, the heart. Anis Fauzi further, Rifyal Ahmad Lugowi said "The material is quoted from the existing subject matter and syllabus. The subject matter was then developed into several material descriptions ". In determining the learning materials or teaching materials can not be separated from the philosophy and theory of education developed.As has been stated above that the development of curriculum yartg based on classical philosophy (perenialism, essensialisme, eksistensiaisme) Mastery of learning materials become the main thing. In this case, learning materials are arranged logically and systematically, in the form of:

1. Theory; A set of interrelated constructs or concepts, definitions or prepositions, presenting a systematic view of the phenomena by specifying the relationships between the variables with the intent of explaining and forecasting the phenomenon.
2. Concepts; An abstraction formed by the organization of specificities, is a short definition of a group of facts or symptoms.
3. Generation; Special general conclusions, based on the matters derived from analysis, opinion or verification in research.
4. Principle; Namely the main idea, the scheme pattern that exists in the material that develops the relationship between several concepts.
5. Procedures; Ie series of sequential steps. In the subject matter that the learner should do.
6. Facts; The number of specific information in material that is considered important, consisting of terminorogi, people and places and events.
7. Terms, new and special treasury words introduced in the material.
8. Example / illustration, ie thing or action aims to intensify a description or opinion
9. Definition: that is explanation-about the meaning or understanding of a ha / word in the outline.
10. The preposition, ie the means used, to deliver the lesson material in an effort to achieve the curriculum objectives.

ISBN 978-616-278-391-3

Learning materials based on the philosophy of progressivism pay more attention to the needs, interests, and life of learners. Therefore, the learning materials must be taken from the world of learners and by the learners themselves.

Learning materials based on constructivism philosophy, teaching materials are packed in such a way as themes and topics raised from crucial social issues, such as economics, social, and even about nature. Learning materials based on many educational technologies are adopted Of the discipline, but has been mixed in such a way and taken only essential things to support the mastery of a competence. Broader teaching materials or competencies are broken down into smaller, objective parts or sub-competencies.

By looking at the above exposure, it appears that seen from the philosophy underlying the curriculum developer there are differences in determining the teaching material.But in its implementation is very difficult to determine learning materials that go only from one particular philosophy, then in practice tend to be used eclectically and Flexible.

The learning of motion and physical activity given gradually and gradually will have an effect on the optimal development in each stage of development according to the age of the child, so that this process is a stage of physical and physical maturity that lead them to the peak condition of physical development.

5. Learning Materials

According to Anis Fauzi, Rifyal Ahmad Lugowi "Material Learning is the material used to achieve learning objectives and indicators". Meanwhile, according to John Dewey in sofan learning materials and reflective methods in solving problems, namely the process of thinking, the heart. Anis Fauzi further, Rifyal Ahmad Lugowi said "The material is quoted from the existing subject matter and syllabus. The subject matter was then developed into several material descriptions ". In determining the learning materials or teaching materials can not be separated from the philosophy and theory of education developed.As has been stated above that the development of curriculum yartg based on classical philosophy (perenialism, essensialisme, eksistensiaisme) Mastery of learning materials become the main thing. In this case, learning materials are arranged logically and systematically, in the form of:

1. Theory; A set of interrelated constructs or concepts, definitions or prepositions, presenting a systematic view of the phenomena by specifying the relationships between the variables with the intent of explaining and forecasting the phenomenon.
2. Concepts; An abstraction formed by the organization of specificities, is a short definition of a group of facts or symptoms.
3. Generation; Special general conclusions, based on the matters derived from analysis, opinion or verification in research.
4. Principle; Namely the main idea, the scheme pattern that exists in the material that develops the relationship between several concepts.
5. Procedures; The series of sequential steps. In the subject matter that the learner should do.
6. Facts; The number of specific information in material that is considered important, consisting of terminorogi, people and places and events.
7. Terms, new and special treasury words introduced in the material.
8. Example / illustration, ie thing or action aims to intensify a description or opinion
9. Definition: that is explanation-about the meaning or understanding of a ha / word in the outline.

10. The preposition, ie the means used, to deliver the lesson material in an effort to achieve the curriculum objectives.

Learning materials based on the philosophy of progressivism pay more attention to the needs, interests, and life of learners. Therefore, the learning materials must be taken from the world of learners and by the learners themselves.

Learning materials based on constructivism philosophy, teaching materials are packed in such a way as themes and topics raised from crucial social issues, such as economics, social, and even about nature.

Learning materials based on many educational technologies are adopted Of the discipline, but has been mixed in such a way and taken only essential things to support the mastery of a competence. Broader teaching materials or competencies are broken down into smaller, objective parts or sub-competencies.

By looking at the above exposure, it appears that seen from the philosophy underlying the curriculum developer there are differences in determining the teaching material.But in its implementation is very difficult to determine learning materials that go only from one particular philosophy, then in practice tend to be used eclectically and Flexible.

. Development of Manipulative Basic Motion Learning

A. Manipulative motion

Manipulative base motion using a large ball that corresponds to class V aged between 9-10 years is with a simple but efficient motion. This material is more multilateral and integrated skills that include basic motion skills as follows:

1. Motor perception skills

• Body management: it means to know and understand the parts of the body and its functions.

• Gestures management means to know and understand how the body moves efficiently in relation to the use of time, energy, and motion sequences.

2. Basic motion skills

• Locomotor motion: meaning the skills used to move the body from one place to another such as roads, jogging, and so on.

• Manipulative motion: meaning the skills used to move the body or objects. Included in this skill is throwing, catching, kicking, and hitting.

3. Serial physical activity

• Self-testing activity means free skills where the child begins to move by mimicking the motion of the star.

• Play activities conducted by individuals and groups

• Simple game activities equipped with simple rules. For example playing chase, hide and seek, pat chase, running with a target still or move and so forth.

Bennet, Howell, and Simri (1983) cited by Samsudin, elements of physical education that are commonly given in Primary Schools are:

1. Basic movements that include: road, running, throwing, jumping, kicking, pulling, pushing, rolling, hitting, balance, catching and scrolling.

2. Game with low organization and run off

3. Rhythmic activities, folk dances (rolk dance), bernyyi and music games.

ISBN 978-616-278-391-3

In addition, the purpose of learning modification can be attributed to the learning objective of starting the lowest goal to the highest goal or from the easy to the difficult. To say Modification is also interpreted as a change from the old / original state to a state of renewal, This change may change shape, function, mode of use and benefit without completely eliminating the old or the original characteristics so Modification is An approach in learning emphasizes the joy of physical prowess And styling of motion to students. Modification of the purpose of this material can be done by dividing the objectives of the material into three components, namely: the purpose of expansion, refinement, and implementation purposes.

• The purpose of the extension is the goal of learning is more emphasis on the acquisition of knowledge and skills to form or skill forms learned without attention to aspects of efficiency, and effectiveness.

• The purpose of smoothing the point is learning that emphasizes the acquisition of knowledge and the ability to perform the movement efficiently.

• The purpose of maxim application is learning objectives that emphasize on the acquisition of knowledge and ability about the effectiveness of a movement that has been done through the introduction of certain criteria in accordance with the level of student ability

B. Manipulative basic motion modification

According to Ngasmani and Soepartono followed by Husdarta, the main reasons for the modification are: (1) the child is not an adult in a small form, the physical and mental maturity of the child is not as complete as the adult, (2) the approach to physical education learning has been less effective, And monotonous, (3) existing physical education facilities are now almost complete for adults.

According to Husdarta the modifiable components of physical education in elementary school are: (1) the size, weight or form of equipment used, (2) the size of the playing field, (3) the length of play time or duration of the game, (4) the rules The game used, (5) the number of games or the number of students involved in a game.

Aspects are always used as the main principle of learning modification pemas is to analyze and develop the subject matter by reducing it in the form of potential learning activities to launch students in the learning process. This method is intended to guide, direct and educate students who can not be from a lower level to a higher level.

The modified learning tools of learning so that the learning can still be carried out in accordance with the curriculum demands but not the methods that have been determined. The method that can be used to teach basic manipulative motion skills using large balls is, in principle, the same as the use of teaching methods or training methods for each type of skill. Manipulative base motion using a large sphere in the classification of acyclic combined skill type. This means that there is a cyclical movement which then continues with acyclic movement so that it can take part method (part method) and whole (whole method).

Manipulative base motion using a large ball for elementary school students, is one of the activities of developing the ability of motion, hand eye coordination of the ball that is done from one place to another. Manipulative movements using large orbs are one motion that combines locomotor and manipulative movements. To foster and enhance the activity of developing the endurance ability of elementary school students, the key must have learning characteristic while playing.

C. Assessment of Physical Education, Sport and Health

Assessment is a series of activities to obtain, analyze, and interpret data about the process and student learning outcomes are done in a systematic and continuous, so that becomes meaningful information in decision making. This is corroborated by Bahrul Hayat that authentic assessment is: the process of collecting information by teachers on the development and achievement of learning done by students through various techniques that are able to express, prove or demonstrate appropriately that the learning objectives and competencies have been completely mastered And achieved. Realizing an authentic assessment of the implications that can be felt directly is that students are naturally always in a ready condition at any time to be nationally tested.

Assessment in Education Unit Level curriculum (KTSP) is a competency-based assessment, which is part of the learning activities undertaken to determine the achievement of student competence that includes knowledge, skills, and attitudes. Assessment is done during the learning process or at the end of the lesson. The main focus in education is the success of student learning in achieving the competency standard that has been done. At the level of the subject, the competency that is achieved is the standard of competence (SK) of subjects which is further elaborated in the basic competence (KD). Level of educational unit, the competence to be achieved by the students is the graduate competency standard (SKL), as it is known that SKL consists of three major parts: SKL educational unit, SKL student eye group and SKL subjects.

The assessment of learning outcomes used for primary and secondary learners is based on the following principles:

A. Sahih, meaning assessment is based on data that reflects a measured ability.

B. Objective, meaning assessment is based on clear procedures and criteria, not subject to assessment subjectivity.

C. Fair, meaning unfavorable or disadvantageous assessment of learners due to special needs as well as differences in ethnic, cultural, cultural, cultural, socioeconomic and gender backgrounds.

D. Integrated, meaning assessment by educator is one component that will be separated from learning activities.

E. Open, meaning assessment, assessment criteria, and basic decision-making can be known by interested parties.

F. Comprehensive and sustainable means educational by the educator covering all aspects of competence by using appropriate assessment techniques to monitor the development of learners' abilities.

G. Systematic, means the assessment is done on a planned and gradual basis by following the standard steps.

H. Referred criteria means that the assessment is based on a measure of attainment of a defined competency.

I. Accountable means the assessment can be justified, both in terms of techniques, procedures, and results.

There are four terms related to the concept of assessment used to determine the success of student learning, namely: measurement, testing, assessment and evaluation.

Measurement is the process of determining the size of a symptom according to certain rules. Measurement of basic competency-based education on the classification of observations for work or the ability of students to use a standard.

ISBN 978-616-278-391-3

Assessment is a general term that includes all the methods commonly used to assess the work of an individual or group of students. The assessment process includes the collection of evidence showing student achievement.

Evaluation is a systematic assessment of the usefulness or usefulness of an object. In the evaluation there is judgment to determine the value of a program that contains a bit more subjective elements.

The steps used to assess the learning process of the penjasorkes include:

A. Adjusting materials with competencies in the curriculum

B. Assessment tool in accordance with the competence to be achieved.

C. When the assessment takes place consider the child's condition.

D. The implementation instructions are clear, using an easy-to-understand language

E. Clear scoring criteria

F. Use different ways and tools to score various competencies

G. Perform a series of assessment activities through: assignment, replication, observation, etc.

The process of assessing the penjasorkes is obtained from the portrait / proficiency profile of learners in achieving a number of competence standards and basic competencies listed in the curriculum. The results of this assessment is a process that is done through the steps of planning, the preparation of assessment tools, the collection of information through a number of evidence that indicate the achievement of learners learn, processing, and use of information about learners learning outcomes.

8. Children with special needs for the blind

Mental retardation is one form of disorder in children and adolescents that can be found in various places, namely a state in which children experience backwardness in adjusting to their environment and shown by their lack of coverage in thinking of things that are academic, abstract, tend to be difficult and convoluted -bound in almost every aspect of life and they also lack the ability to adapt (Amin, M, 1955). Tunagrahita children (mental retardation) are in need of special education and guidance services when pursue the task of development in his life.

Characteristics of Mortality:

1. Characteristics of light tunagrahita (Mumpuniarti, 2000)

A. Cognitive characteristics

• Has an IQ of 50-70

• The learning capacity is very limited especially for abstract things, hence more learning by rote (learning) not with understanding.

• Low ability of thinking, slow attention and low memory.

• Still able to write, read, count.

• Having difficulty in concentration, difficult to focus on in learning.

• Age of intelligence when an adult equal to normal children aged 12 years.

B. Physical characteristics

• Mild tunagrahita children appear to be normal children, with only a slight delay in sensory abilities.

C. Characteristics of social / behavior

• Light tunagrahita children are able to mingle, adjusting in an environment that is not confined to the family alone. But some are self-sufficient in society, able to do simple work and do it fully as adults.

D. Characteristics of emotion

ISBN 978-616-278-391-3

• Mild tunagrahita children are difficult to think abstractly and logically, lack analytical skills, weak associations, weak fantasies, lack of control over feelings, easy to influence, less harmonious personality because they can not judge what is good and what is bad.
• Not able to detect faults on him, so indifferent.
E. Motor characteristics
• Mild tunagrahita children experience delays in sensory abilities.
• In speech a lot of fluent, but the vocabulary is still minimal.
2. Characteristics of moderate tunagrahita (mumpuniarti, 2000)
A. Cognitive characteristics
• Has an IQ of 30-50.
• Child tunagrahita is very difficult or even can not learn akdemik like learning to write, read and count but can be trained in simple things, just introduced to read and write his own name and know the numbers.
• Low attention of children in learning will inhibit memory. They have difficulty in focusing, quickly switching.
• Less tough in the face of tasks, forgetful, and difficult to express the memory and easily bored.
• Easily turn his attention to what he considers to be more interesting and his limitations in his intellectual ability so that his academic ability is very simple.
• In adulthood, the child's new tunagrahita achieves the intelligence of a normal child of 7 years or 8 years.
B. Physical characteristics
• Her appearance shows as an underdeveloped child, showing more of her notes.
C. Characteristics of social / behavior
• Most of his social attitudes are poor, his ethical sense is lacking and appears to have no gratitude, compassion and justice.
• Still able to take care, lead, nurture herself, and socialize with the environment, although it takes a long process, for example: bathing, eating, drinking, dressing.
• Very dependent on others.
• Be childish, often daydreaming or hyperactive.
• Able to protect themselves from harm and can work lightly but remain under supervision because unattended will work originally.
D. Characteristics of emotion
• Their lives are very weak emotions, they rarely live their sense of responsibility and social rights.
• Have a high imagination.
E. Motor characteristics
• Lack of ability to coordinate gestures.
• His hands are stiff.
3. Characteristics of severe retardation
A child with severe mental disability has an IQ below 30. This child has a lifetime of help and help from others, so dressing, toilets and other activities should be helped. They do not know danger or harm. His words and speeches are very simple. His intelligence is as high as a normal 3-year-old child.

ISBN 978-616-278-391-3

The model design in the study of the development of the basic manipulative motion learning model using a large ball cited from Sadiman which has the following steps:

 Determination of Ideas

Determination of ideas is done by observation and interview with the teachers of physical education will be obtained ideas. And from the analysis of needs obtained, it can be concluded that the idea of this development is the need for the development of basic manipulative basic motion learning material in grade V elementary school children, it will be able to help students to recognize manipulative basic motion.

 Scripting

After getting the idea, the next step is to make the initial product in the form of learning materials of mainpulative using big ball in elementary school children of class V which later can be used as a guide or guidance to get the value of good learning result. The initial product is poured in the form of a media script (story board). With storyboards it is expected that developed products can be arranged in a systematic and logical, so that this product has effectiveness and efficiency that deserve to be published. In the manufacture of the product developed by the researcher, the researcher should consult the product to the expert / trainer of big ball game, the physical education instructor and the expert / guru pemas, in order to produce the perfect product.

 Evaluation

After the script is finished the next step is to evaluate the script. This evaluation is done to improve and refine the manuscript that has been made.

 Product Revision I

To correct the errors in the manuscript made, the manuscript is given to the volleyball coach / trainer, physical education instructor and expert / teacher of peer to be revised.

 Production of Prototype

After the manuscript has been revised by the expert correctly, the next step is the preparation of the learning materials in grade V elementary school children.

 Prototype Trial

Then the next stage is a prototype test, it is intended to seek input, suggestions and assessment of the product to be developed. Implementation of trials is done through the stages, namely:

1. Establish a test design
2. Setting test subjects
3. Prepare the instrument of data preparation
4. Establish data analysis techniques.

 Revision II

After the initial product is tested, to know the level of effectiveness, it will be revised, either from the expert / volleyball coach, physical education instructor and expert / teacher of pemas and the students (phase I trial and phase II trial).

 Reproduction

Then in the last stage of reproduction. At this stage re-editing of a perfectly revised prototype production. So that the final product in the form of learning material of basic manipulative motion using big ball in elementary school children of class V can be used and used by teacher in teaching and learning activity.

ISBN 978-616-278-391-3

CHAPTER III
RESEARCH METHODOLOGY

A. Place and Time of Research

This research is planned to be implemented in SLB (extraordinary school) Medan city of North Sumatra. The time of the research will be conducted from July to August 2017. The research frequency is four times a month. Research subjects in the study of basic motion model manipulaif using a large ball with the game pattern is the basic level of SLB students with disabilities in the city of Medan North Sumatra.

B. Characteristics of Research Goals

Characteristics of research targets used in research development of learning model of manipulative basic motion using big ball is the students of SD Putra and Putri who are mentally disabled in SLB Medan North Sumatera city which amounts to 60 students.

C. Approaches and Research Methods

Approach method used development research. Research and development according to Nana Syaodid Sukmadinata is a process or steps to develop a new product or improve existing products, which have been able to accountable. According to Sugiono, there are educational products such as curriculum specific to specific educational needs, learning methods, instructional media, textbooks, modules, competence of educational staff, evaluation system, competency test model, classroom arrangement for specific learning and others.

The end result of the research and development activities is the learning model, especially the learning of physical education on the basic motion manipulative material for elementary school students. Of course the final results of this research and development will produce a new learning model design complete with product specifications, so it can be used as a handle in teaching and learning process in extraordinary schools especially people with mental illness.

E. Planning And Modeling

Planning and preparation of learning models is made in order to provide clear guidance in the implementation of research development. Planning and preparation of learning models related to learning strategies that will be planned and arranged systematically, so that the learning process can take place optimally. In the process of learning, planning and preparation of learning models is a factor that determines the success of a program. The planning and compilation of the learning model is part of the physical education learning strategy especially in manipulative basic motion materials using large balls for elementary school students.

In order to find a way out of this research and development problem, it will be arranged a basic manipulative motion learning model model using a large ball using simple tools for SLB Basic level students. In this connection, the product that is planned to be developed is a manipulative basic motion learning model using a large ball using simple tools consisting of 30 models to be used in basic manipulative motion learning using large balls. The model, of course, the equipment used is easily obtained materials and the price is relatively cheap, for example rubber ball, cardboard, net / nets,

ISBN 978-616-278-391-3

hulahup, used motorcycle tires, rope rope (rope made of plastic), wood / iron poles, So adjusted to the characteristics of growth and development of children.

Basically the characteristic and structure of manipulative base motion pattern for the blind with large ball can be described as follows:

1. From right to left or with both feet
2. From the stand or by square off
3. Using a piece of rope or a stick or hulahup.
4. Far, tall, or far, flat
5. Once throw a ball or repeatedly
6. No rhythmic or rhythmic
7. Straight or a circle
8. From the front or square of the arch
9. Own or in pairs and in groups
10. Throw with two hands or one hand

In general, this study will be developed and grouped by manipulative basic motion types using large spheres, such as (a) catapulting or spinning ball in pairs or without the aid of a tool (b) inflating ball through wall media (c) Tools / obstacles from the net or hulahup / used tires.

F. Product Trial

Product trials are conducted to collect the data used as the basis for establishing the feasibility of the product the researcher develops. The stages in this product trial include: 1) Establishing the design of the trial, 2) Setting the test subject, 3) Setting the data type, 4) Establishing the data collection instrument, and 5) The data analysis technique.

1. Define a Design Trial

The purpose of the test design is to obtain the data that needed to improve the product completely. The pilot design is carried out through two stages: first phase evaluation and second phase evaluation. Both of these stages aims to obtain information about the significance of developed products.

A. Small Group Trials

The purpose of this first phase evaluation is to determine the suitability of the material to be produced and developed. The first stage evaluation consists of:

 Expert analysis, which includes great game experts / coaches and physical education teachers. For experts / trainers big ball game serves to provide information and assessment of the appropriateness of basic manipulative motion learning materials for students with basic level mentions. While the physical education teachers function to provide information, correction and suggestions, will be collected suggestions from both experts in the development of products to be produced.

 Small group trial: At this stage using 8 basic students with the basic level in one of the SLB of North Sumatra. The purpose of this small group trial is to get input by observing, identifying and refining the product developed after review by several experts. These test steps include:

1. Explanation of product concept to object (student).
2. Provide an explanation of the development of basic manipulative motion using a large ball to the students.
3. Ask students to practice basic manipulative motion exercises using large balls.

ISBN 978-616-278-391-3

4. Ask the physical education teacher / teacher to provide feedback on the products that have been made.

At this stage will also be tested instruments that will be given to teachers physical education, with the aim to determine whether the instrument has been made researchers are eligible to assess students in the mastery of manipulative base motion using large balls on students with basic level.

 First product revision

The results of the review and analysis of some experts will bring up revisions to the product development. So that the results of the revision of the experts will be product II in the form of basic motion manipulative products using large balls that are ready to be tested in the field. It is also to revise the tested instruments so that the results can be used to assess students in the field test phase.

B. Large Group Trial

Evaluation of this second phase will be conducted large group cohort tests by students of class IV, V, VI with the number of ..... people. So the product in the form of basic manipulative motion learning material using this big ball will become more perfect again, and can be applied as well as possible.

2. Setting a Test Subject

In this development the test subjects used include:

A Review of experts consisting of 2 experts, namely: 1 expert / trainer of big ball game and 1 expert / teacher of physical education. The qualifications of experts in this development should be determined in the role of evaluation or revision. For experts / trainers big ball game: an expert who works or competent in the field of sports big ball game, (2) As for experts / teachers physical education should have characteristics, among others: at least has been a physical education teacher at least 5 years.

B The small group trial, the trial subjects were 8 students with grade IV grade, V, VI in the SLB of North Sumatra's randomly selected field.

C Large group trial, the trial subjects consisted of 30 students with grade IV grade, V, VI in SLB Medan North Sumatera.

3. Setting the Data Type

The data used in the development of basic manipulative motion learning materials using large ball on the children. The extraordinary level of grade IV, V, VI is qualitative data obtained by changing the qualitative to quantitative data by scoring the qualitative data.

4. Establish a Data Collection Instrument

The instrument used in this study is to use, analysis of the needs of the evaluation questionnaire consisting of 2 experts, namely: experts / trainers big ball game and experts / teachers physical education. The qualifications of experts in this development should be determined in the role of evaluation or revision (in small group trials and large group trials).

The way used in knowing the product results in the form of basic manipulative motion learning that has been tested to the students with the elementary school class IV, V, VI whether it has been successful or not. This data collection was conducted during small group trials and large group trials.

The following is a form of test and explanation for field trial data retrieval:

A. Psychomotor Test Motion Basic manipulative using a large ball.

 Conceptual Definition

ISBN 978-616-278-391-3

Manipulative basic movements using large balls is a movement to act on some form of motion from the limb in a more skilled manner. For the means of playing and improving the activity of developing the ability of elementary school student learning process, then the key must have learning characteristic while playing. Manipulative basic motion using big ball for elementary school student is one of activity of developing power ability which done from one place to another.

 Assessment Standards

Ability to perform basic manipulative motion using a large ball correctly done by grade V elementary school students is the result obtained in doing the motion that has been done / taught. Psychomotor learning results obtained from the total score of students in performing each of the movements assessed in performing each basic manipulative motion using a large ball. Indicators in the value include: (1) the initial attitude, (2) the implementation of the movement, (3) the final attitude.

 Instrument Grille

Psychomotor aspect assessment is done in accordance with the basic competence demands to be achieved by the students. Psychomotor assessment is done by observing the basic manipulative movements using large balls performed by the students. The description of the psychomotor assessment of manipulative base motion using a large ball is poured on the instrument's grid of purpose is to facilitate in conducting the assessment in accordance with what has been planned so as not to widen in the material being taught. The instrument grating is arranged as follows:

Criteria score: Implementation of Basic Manipulative Learning Learning using a large ball.

A. Aspects of prefix:

Score 5, if the five elements of movement is done.
Score 4, if the four elements of movement done.
Score 3, if, if only three are done.
Score 2, if only two are done.
Score 1, if only one is done.
Score 0, if none is done.

B. Aspect of implementation:

Score 5, if the five elements of movement is done.
Score 4, if the four elements of movement done.
Score 3, if, if only three are done.
Score 2, if only two are done.
Score 1, if only one is done
Score 0, if none is done.

C. Aspect of final attitude:

Score 5, if the five elements of movement is done.
Score 4, if the four elements of movement done.
Score 3, if, if only three are done.
Score 2, if only two are done.
Score 1, if only one is done.
Score 0, if none is done.

 Calibration

A. Expert validity

ISBN: 978-616-278-391-3

Validity test is conducted with the aim to know the extent to which the test can measure precisely aspects of the stages of manipulative basic motion. Based on this, the validity test of this test is by using expert justification test, where the instrument has been compiled and then consulted to experts (big game ball experts), physical education and physical education experts

B. Reliability

To see the reliability of the test conducted a test-retest technique to see the level of consistency of the measuring instrument to be used. Instrument tested for 2 (two) times experimental series on students. Instruments and respondents used the same, but done in different times. Instrument reliability is calculated by correlating between instrument data obtained from the first test and data obtained from the second trial. Both data from the use of basic motion manipulative instrument is then processed with the formula Pearson (corelation product moment) in Sudjan

5. Data Analysis Technique.

Data analysis techniques are an important step in research and development activities to assess the results of previously obtained data. Data analysis techniques used adapted to the type of data collected. Some of the things that need to be considered in the data analysis include, (1) data analysis including data organization procedures, reduction, and presentation of data, either with tables, charts or graphs, (2) data classified by type and component of product developed, (3)) Data are analyzed descriptively as well as quantitative calculations, (4) the presentation of data analysis results is limited to factual matters, without developer interpretation, so as a basic assumption in revising the model, (5) in the data analysis of the use of calculations and statistical analysis in line With the issues raised.

Data analysis in this research and development using quantitative descriptive analysis. All the data collected were analyzed by descriptive statistical techniques that were quantitatively segregated by category to sharpen judgments which were then used to draw conclusions. The data analysis is conducted on expert's review as the result of expert judgment, beside that qualitative data in form of input and suggestion are also grouped and analyzed which result is used for product development revision.

At the development stage some of the analysis approach used are: (a) implementation and result of design model development is described in the form of data presentation, then analyzed qualitatively; (B) on a limited trial, the test results of the application of the model design are analyzed by quantitative approach; (C) in large group trials are also carried out statistical analysis techniques (quantitative), with statistical model model, with psychomotor assessment, as follows:

Table 3.3 Psychomotor Value Category

Value	Category
≥ 80	Very good
60-79	Good
40-59	Enough
30-39	Less
< 29	Very less

ISBN 978-616-278-391-3

In this research and development the data analysis technique used is quantitative descriptive analysis technique with percentage. This technique is used to analyze quantitative data obtained from the results of questionnaire dissemination evaluation from motorists and physical education experts about the results of developed products.

In this research and development the data analysis technique used is quantitative descriptive analysis technique with percentage. This technique is used to analyze quantitative data obtained from the results of questionnaire dissemination evaluation from motorists and physical education experts about the results of developed products. The formula used to analyze the data is as follows:

1. The formula for processing the data per trial subject.

$$P = \frac{X}{Xi} \times 100\%$$

Information:

P = Percentage of evaluation result of trial subjects

X = Number of score answers by trial subjects

Xi = Number of answers in the aspect of assessment by trial subjects

100% = Constant

2. The formula for processing the data as a whole of the test subjects.

$$P = \frac{\sum X}{\sum Xi} \times 100\%$$

Information:

P = Percentage of overall results of evaluation of trial subjects

X = Total answers of experiment subjects in

Overall assessment aspect

Xi = Maximum total score of test subjects in

Overall assessment aspect

100% = Constant

Then to determine the conclusion that has been achieved then set criteria as in the following table.

Table 3.5 Percentage Analysis of Evaluation Results By Test Subject

Percentage Description of Meaning

Presentage	Explaination	Meaning
80% - 100%	Valid	Used
60% - 79%	Self Valid	Used
50% - 59%	Less Valid	Changed
< 50%	Invalid	Changed

Calculating the average effectiveness of the new and conventional learning model in the student, must first be determined the criterion score / ideal for the work system, then it is necessary to calculate the number of ideal scores by multiplying the highest score, the number of task tasks, Number of respondents. The next step is to calculate the ideal score of each task task motion by multiplying the highest score, the stage of movement with the number of respondents. Calculate the percentage obtained by dividing the ideal score amount per item divided by the ideal score multiplied by 100%. Mathematically can be described as follows:

$$Ski = A \times B \times C \times N$$

Information :
A = highest answer score
B = Number of instrument items
C = Stage movement
N = Number of respondents
The formula for finding the ideal score for each item is:

$$SKTB = A \times C \times N$$

Information :
A = highest answer score
C = three stages of movement
N = number of respondents.
Calculation of the percentage of effectiveness model using the following formula:

$$E = SKTB \times 100\% SKi$$

E = Percentage of subjects test result
SKTB = The total ideal score per item
SKi = Ideal score
After the results of old and new learning model is calculated it will get a score of percentage. The percentage of new learning model is higher than the percentage of conventional learning model means the learning model of manipulative base motion using big ball with more effective game.
Evidence of the significance of the difference between the new and conventional learning model, then it needs to be tested statistically with correlated t-test (related). The formula used is as follows:

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2} - 2r\left(\frac{s_1}{\sqrt{n_1}}\right)\left(\frac{s_2}{\sqrt{n_2}}\right)}}$$

BIBLIOGRAPHY

Amin, m. (1955) . *Ortopedagogik anak tunagrahita.* Bandung ; Departemen Pendidikan Dan Kebudayaan Direktorat Jendral Pendidkan

Anshel, M.H., & Lidor, R. (2012). Talent detection programs in sport: the questionable use of psychological measures. *Journal of Sport Behavior, 35, 3.*

Azwar, Saifuddin. (2013). *Reliabilitas dan validitas*. Yogyakarta: PustakaPelajar Offset.

Beswick, Bill. (2010). *Focused for soccer* (*2nd ed.)*. Champaign, Illinois: Human Kinetics Publishers, Inc.

Bridle, Bob. (2011). *Essentials soccer skills: key tips and techniques to improve your game.* New York City: DK Publishing.

Coyle, Daniel. (2009). *The talent code: greatness isn't born, it's grown, here's how.* New York City: Bantam Dell, A Division of Random House, Inc.

Da Silva, N.P., Kirkendall, D.T., & Neto, T.L.d.B. (2007). Movements and patterns in elite Brazillian youth soccer. *Journal of Sports Medicine and Physical Fitness, 47, 3.*

Delpie, P. (2006). *Pembelajaran Anak Berkebutuhan Khusus (Dalam Setting Pendidikan Iklusi),* Bandung ; PT. Refika Aditama.

Irianto, Subagyo. (2010). Peningkatan penguasaan bola melalui *ball feeling* dalam permainan sepakbola. *Proceedings Seminar Olahraga Nasional III dalam rangka Dies Natalies FIK UNY 2010, 131-137.*

Jennings, Madeleine, & Howe, Ian. (2010). *Skills in motion soccer step by step*. New Yor City: The Rosen Publishing Group, Inc.

Kubo, et. al. (2010). Profile of trunk and thigh muscularity in youth and professional soccer players. *Journal of Strength and Conditioning Research, 24, 6.*

ISBN 978-616-278-391-3

Mumpuniarti, (2000). *Penanganan Anak Tunagrahita (kajian dari segi pendidikan Sosial Psikologi Dan Tindak lanjut Usia Dewasa).* Yogyakarta ; UNY.

Rostgaard, et.al. (2008). A test to evaluate the physical impact on technical performance in soccer. *Journal of Strength and Conditioning Research, 22, 1.*

Sternberg, R.J., & Davidson, J.E. (Eds.). (2005). *Conceptions of giftedness (2nd ed.).* New York City: Cambridge University Press.

Suharjana. (2013). *Kebugaran Jasmani*. Yogyakarta: Jogja Global Media.

Upton, Penney. (2012). *Psikologi perkembangan.* (Terjemahan Noermalasari Fajar widuri). New York City: Pearson Education. (Buku asli diterbitkan 2012).

Widoyoko, S.E.P. (2012). *Teknik penyusunan instrumen penelitian.* Yogyakarta: Puataka Belajar.

ISBN 978-616-278-391-3

ACPES 2017
The 3rd International Conference on Physical Education, Health and Sport
ASEAN Council of Physical Education and Sport
"Best Practice for ASEAN+ Community: Enhancing Physical Activity, Physical Education, Sport, Health and Recreation"
2 - 5 September 2017
Saen Palm Convention Hall, Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom,Thailand
Hosted by: Kasetsart University

ACPES24-Full

EFFORT TO INCREASE THROUGH LEARNING OUTCOMES LONG JUMP ORTODOCKS STYLE WITH DEMONSTRATION METHOD OF CLASS VIII JUNIOR HIGH SCHOOL BAKTI FIELD PRIVATE CHARITY 2016 ACADEMIC YEAR

Devi Catur Winata

Lecturer of Sport and Health Academy Bina Guna Medan

Abstract

This study aims to find out how to improve learning outcomes Long Jump Ortodock Style Through Demonstration Method on VIII students of Private Junior High School Amal Bakti Medan academic year 2016. The time of the research was conducted in August 2016. The object of this research is the students of class VIII with the number of students 25 people consisting of 12 male students and 13 female students who will be given the action in the form of learning variation on the learning results of Long Jump.

Based on the results of student learning in the first cycle of the test results of learning I can be seen that the initial ability of students in doing the technique long jump is still low. Of the 25 students there are 15 people (60%) who have achieved mastery learning, while 10 people (40%) have not reached mastery learning. With the average value of student learning outcomes is 76.3. While in the second cycle can be seen that the ability of students in performing the test results of learning have been increasing klasikal. Of the 25 students there are 22 people (88%) who have achieved learning mastery, while 3 people (13%) have not reached mastery learning. With the average value of student learning outcomes is 80.7, so there is a 25% increase in learning outcomes from cycle I to cycle II .

Based on that it can be concluded that the learning through variation of Learning can improve the results of Long Jump Ortodock Style in VIII students of Private Junior High School Amal Bakti Medan Academic Year 2016.

Keywords: Learning Outcomes Long Jump, Demonstration Method

1. Introduction

Physical education is a vehicle for education, which provides opportunities for children to learn some important things. Therefore, physical education lessons are no less important than other subjects such as: mathematics, language, science, social studies and others. However, not

all physical education teachers are aware of it, so many assume that physical education may be carried out in a haphazard manner. This is reflected in negative things about physical education lessons, ranging from the weakness of the settler process, such as allowing children to play themselves to the low quality of lessons and very low physical fitness.

Physical education is the most important part of an educational process. Through well-directed physical education, children will develop useful skills for filling in leisure time, engaging in activities conducive to healthy living, social development, and contributing to their physical and mental health. Physical education is a subject taught from elementary education to secondary or vocational education. Through the process of physical education, exercise, health is expected to encourage physical growth, motor skills and knowledge.

Physical education as a component of education as a whole has been recognized by all circles. However, the implementation of physical education is not effective yet as expected. The role of physical education is very important, namely to provide opportunities for students directly involved in the various movements of learning experiences through physical activity. It is a medium to encourage the development of motor skills, physical abilities, knowledge and reasoning, enrichment of values (mental attitude, emotional, spiritual and social), and familiarize healthy lifestyle that leads to stimulate balanced growth and development.

The process of physical education emphasizes the activities of students and utilize the body as a tool to achieve educational goals. Therefore, the objective is comprehensive and complete that includes total development, in the form of: physical, intellectual, emotional, social, moral and spiritual.

Physical education can be viewed as an integral part of a comprehensive education that contributes to the development of individuals through the medium of human motion. The human movement that is utilized by physical education is not just any motion. The movements that have been packaged in certain packages in the form of various sports and games.

Through physical education learning, learners will gain experience that is closely related to the personal impression that pleases creative expressions, innovative, motion skills, physical fitness, healthy lifestyle, knowledge and understanding of human motion, will also form a positive personality.

Physical education learning is carried out through physical activity. But this, there are still many misguided parties about physical education, because this education uses movement or physical activity as a means of learning, it is considered this education is only as a complement because it is intended for physical needs only. Melalaui physical activity will be arranged in a systematic and planned to go to a complete Indonesian man.

Teachers is the implementation of learning and the main source for students in physical education education that must be able to create learning conditions that can stimulate students to learn effectively. Physical education teachers will consciously carry out the learning of physical education in accordance with the curriculum and must know the goals to be achieved. For the purpose of physical education can be achieved well, the teacher must create an effective and varied learning atmosphere and fun.To achieve this, physical education teachers should be able to use learning approach so that students can achieve the desired learning outcomes.

Athletics as one of the sports that is taught in schools and as a parent of the sport should be guidance in schools need to get priobrity, and earnest effort. Adequate knowledge of athletics, particularly

ISBN 978-616-278-391-3

concerning how to determine the success of athlete candidates, and selecting gifted students to be effectively fostered, needs to be mastered by seasoning teachers and sports coaches in schools.

The long jump is an athletic (track and field) event where athletics combines the speed of strength and agility in an attempt to jump as far away from take off points. There are four long jump components: prefix, pedestal or repulsion, attitude in the air, and landing.

Based on the results of observation and observation and interviews with the teacher in junior high school Private Amal Bakti Medan researchers see that in the implementation of physical education learning activities in the long jump material students are less able to perform such basic techniques well and feel difficult in performing such basic techniques, so the results of learning Obtained by students less than the maximum, this is because the teacher does not provide different learning styles so that students feel less understanding of basic techniques in the matter long jump. And the way teacher teaching is too monotonous, because of the lack of creativity of the variation of learning it does, the lack of teachers understand the mateti, the teacher's voice is less harsh in explaining the material at the time mempaktekan teachers only do a few times.

This affects the student's learning outcomes so that many students are remedial or repeat during the exam of the long jump practice. Where the minimum criterion value (KKM) that must be achieved by the students is 70, while in doing the long jumping exercise on the VIII grade students of SMP which amounted to 25 people only about 5 complete students (20%) who reached KKM, while 20 Students (80%) did not reach KKM. learning outcomes, it can be concluded that student learning outcomes are low and need to be improved in learning physical education material long jump.

Learning with demonstration methods is more real and interesting because this learning is directly explained and applied to the students so that fun will be able to change the mindset of children who are more happy without fear of fear so then the problems that affect the long jump learning can be improved. Based on the above, it is necessary to look for methods, strategies or approaches that are appropriate to the characteristics of children and the material being taught. One such appropriate approach is through demonstration methods.

Based on the above description, the researcher is interested in conducting research entitled "Efforts to Increase the learning outcomes long jump style squatting through the implementation of demonstration methods In Grade VIII Student Private Junior High School Amal Bakti Medan Academic Year 2016"

B. Problem Identification

Based on the background of the above problems then the identification problem in this research are: 1) What factors affect the physical learning on the lesson Jump away students class VIII Junior High School Private Amal Bakti Medan academic year 2016 ?, 2) What is the way of teaching Teachers influence the learning outcomes Long jump in supporting physical education education on VIII students Private Junior High School Amal Bakti Medan Year 2016 3) What is the Implementation of demonstarasi method can improve learning outcomes Jump Long VIII students Private Junior High School Amal Bakti Medan Year Teachings 2016?

C. Problem Restrictions

In order for researchers to be more focused on the expected goals and do not provide a different interpretation then the problem should be limited. In this study the authors make a boundary problem as follows:

"Efforts to improve the learning outcomes of long jump style squatting through the implementation of demonstration methods in class VIII Private Amal Bakti Medan Academic Year 2016."

E. Research Objectives

The objectives to be achieved in this research are: "To Increase the Outcomes of Distance Learning through Methods of demonstration on VIII students of Private Junior High School Amal Bakti Medan Academic Year 2016.

F. Research Benefits

The results of the study are expected to provide the following benefits:

1. Improving learning outcomes and adding insight to students for creative, active and effective learning in long-distance learning using demonstration methods
2. As a consideration for the teaching staff in choosing the right approach and learning model of the Long Jump,
3. The results of this study are expected to provide an overview of the quality of student learning outcomes that are generated by the learning approach
4. As a scientific refension for other students, especially stock to prospective teachers.
5. Through this research is expected to increase the insight of teachers and researchers so that in the learning process can use the media or variations - variations of learning.
6. Through this research is expected to increase the insight of teachers and researchers in enriching sports science.

D. Problem Formulation

Based on problem restrictions then the formulation in this study are:

"Efforts to improve the learning outcomes of long jump style squatting through the implementation of demonstration methods in class VIII Private Amal Bakti Medan Academic Year 2016."

E. Research Objectives

The objectives to be achieved in this research are: "To Increase the Outcomes of Distance Learning through Methods of demonstration on VIII students of Private Junior High School Amal Bakti Medan Academic Year 2016.

F. Research Benefits

The results of the study are expected to provide the following benefits:

1. Improving learning outcomes and adding insight to students for creative, active and effective learning in long-distance learning using demonstration methods
2. As a consideration for the teaching staff in choosing the right approach and learning model of the Long Jump,
3. The results of this study are expected to provide an overview of the quality of student learning outcomes that are generated by the learning approach
4. As a scientific refension for other students, especially stock to prospective teachers.
5. Through this research is expected to increase the insight of teachers and researchers so that in the learning process can use the media or variations of learning.
6. Through this research is expected to increase the insight of teachers and researchers in enriching sports science.

2. Experimental Work

A. Theoretical Review

1. The Nature of Learning Physical Education

ISBN 978-616-278-391-3

Learning is a conscious and deliberate effort if teachers and students who make students learn through the activation of various elements in the learning process of students. Education is every effort undertaken to change behavior in such a way that it becomes a desirable behavior every child must experience and undergo a process of change long enough, before he can against in accordance with the general way of life.

According to Rusli, et al (2004: 4) said that: "Physical education is an education that actualizes human activities in the form of attitudes, actions and works to be formed, filled and directed toward personal needs in accordance with the ideals of the nation.

Sharman in Nadisah (1992: 15) finds that: "physical education is a part of education (in general) that takes place through activities involving the mechanism of gestures of men and produces patterns of behavior in the individual concerned."

Thus it can be concluded that physical education is a process of interaction between learners and the environment that is managed through a systematic activity toward the physical growth of good children, mental, emotional and social development that harmonious, harmonious and balanced.

According to Sunarno (2005: 1-2) learning physical education is: "as a process must certainly develop and answer some fundamental issues as an eductive interaction process that includes: 1. Where the process will be directed. 2. What to discuss in the process. 3. How to do it. 4. How to know the success or failure of the process. 5. Under what circumstances. 6. Who conducts / submits. 7. To whom it is presented.

The learning process can only take place well if there is interaction between teaching and learning between students and teachers. The process of both parties is basically said to teach, a process where the action and the teacher gets the appropriate response from the students. The teaching process is the teacher and the student can not be expected to happen by itself, but note the atmosphere conducive to ongoing learning for the students. Conducive atmosphere that must be planned in advance with the best possible for teaching can berlangsunng as expected.

According to article 1 point 20 of Act No. 2003 about learning sisdiknas is "the process of interaction of learners and learning resources in a learning environment" if we can know that the learning cirri of initiation, facilitation, and improvement of student learning process shows that the element of deliberate from the parties Outside the individual who does the learning process, in this case individual or collective educators in a system, is a key feature in learning.

Husdarta and Saputra (2000: 4) argued that the main task of teachers is to create a climate or atmosphere so that the learning process occurs in class, dilapanga cirri mainly happened learning process is students can be actively involved in the learning process. Teachers should always try to get students motivated to play a role. However, teachers still function as pengelolah learning and learning process.

For that a teacher must have some ability in delivering teaching tasks, so that the purpose of teaching can be achieved. The most important thing and that must be shown in teaching that is, the teacher must apply appropriate teaching methods and able to membelajarkan students become active in carrying out the task given by the teacher . Physical education is essentially an educational process that utilizes physical activity to make holistic changes in individual quality, whether physical, mental, and emotional. Www.teknopenjasirfan.blogspot.com

ISBN 978-616-278-391-3

In reality physical education is a widespread study. His focus is on improving human motion. More specifically the jar is the relationship between human motion and other areas of education, the relationship of physical body development with mind and soul.

Physical education can be interpreted by various expressions and sentences, which if it is concluded that it is clear that physical education utilizes physical tools to develop human wholeness. In this connection it is understood that through the physical, mental and emotional aspects are also developed, even with the emphasis really on moral development, but the physical aspects are not developed, either directly or indirectly.

2. The Nature of Learning Outcomes

According to Slameto (2003: 2) "Learning is a process of business that a person undertakes to obtain a whole new behavioral change, as a result of his own experience in interaction with his environment".

Furthermore, according to Djamarah (2002: 2) "Learning is as an activity done by the individual consciously to get some impression of what is learned and as a result of its interaction with the environment around the new series of physical and physical activities, to go to the full development.

From some of the above opinion can be concluded that learning is a process of business undertaken by individuals to obtain a new behavior change overall. A person is said to learn when the person is doing a process of activity that resulted in a change in behavior that accompanied the effort so as not to be able to do it. Thus learning aims to conduct behavioral changes in accordance with the same goals in learning requires activity and effort.

Understanding the results according to Big Indonesian Dictionary (2005: 391) is: " something held (made, made, etc.) by effort ". While studying according to Slameto (2003: 2) says: "Learning is a process of business undertaken by a person to gain a whole new behavioral change, as a result of his own experience". In learning a change that occurs will cause the next change and will be useful for the next life or learning process. Furthermore Wittiq in Muhibbinsyah (2010: 88) defines: " Learning is a relatively settled change that occurs in all kinds of overall behavior of an organism as a result of experience.

From some of the above opinion it can be concluded that learning is as a stage change of all the behavior of individuals who are relatively settled as a result of experience and interaction with the environment that involves Cognitive, Effective and Psychomotor process.

According to Mulyasa (2003: 2) said that "Learning outcomes are the abilities that children get after learning through the activities. Learning itself is a process of one who seeks to obtain a form of relative sedentary behavior change. " Therefore, learning outcomes in schools are influenced by the ability of students and the quality of teachers. Students who succeed in learning are children who successfully achieve the goal of learning or intsruksional goals.

Learning process can be said to be effective when the changes that occur in students at least achieve the optimal level and efficient located at the speed of mastering the subject matter presented, even in a relatively short time. Thus if the methods and strategies chosen are appropriate, then the effectiveness of the learning process will be productive, ie give good results.

Slameto (2003: 62) suggests that the factors that affect the teaching and learning process of students to succeed there are two namely:

A. Internal factors that come from within the students themselves, include:

- Physical factors, namely health condition, physical condition

ISBN 978-616-278-391-3

- Psychological factors, namely intelligence, attention, interest, talent, motivation, maturity and readiness.

B. External factors that come from outside the student self, including:

- Family factors such as how to educate parents, relationships between families, home atmosphere, economic circumstances, understanding parents and cultural background.
- School factors such as teaching methods, teacher relationships with students, discipline, teaching tools (media) and the state of the building.
- Community factors such as the state of students in the mass media community, social friends and community life.

From the above explanation it is said that the overall learning outcomes obtained from learning activities in the form of knowledge, skills and attitudes capable mangakibatkan behavioral changes, where the results of learning is seen through a measuring tool called the evaluation. From the factors mentioned above, the knowledge, understanding, application, change of one's behavior can be known especially in the result of learning to put a bullet in athletic sports.

3. Long Jump Style Squatting

The long jump is a branch of the jumping number in athletics. Athletics by Ballesteros is defined as "physical activity or physical learning method, containing natural movements such as roads, running, jumping, and throwing. Thus the athletics has been done early humans. This means that since people are born to be able to walk, run, jump, and throw.

The main mechanical purpose of the long jump is to "catapult objects or bodies to achieve maximum horizontal distance. The jump results are dependent on the parabolic movement generated from the prefix and the long jumper's repulsion. Thus the strength of the foot is a dominant thing in support of long jump ability.

In the long jump, the far-flung body in the air is caused by the horizontal velocity of the fast running prefix and the vertical motion force caused by the foot when it refuses on the repulsion board. Resistance of both horizontal and vertical motions greatly determines the parabolic motion resulting in a leap distance. Long jump is the result of the speed of prefix and foot repulsion on the plank.

Factors that affect the formation of body movement when jumping is the speed of the body when performing a prefix that produces body speed when rejecting and the power to reject it. Because the factor will depend on the sprint sprint speed to produce a jumping force in which it is the combined result of leg strength, the strength of the swinging leg and the arm swing.

To know clearly the leap style of the students, it is necessary to know the techniques of all the styles used, each of which has a different form of movement in motion while floating.

In general, the long jump style there are three (3) kinds, namely:

1) Style squatting or tuck
2) Style snapper or hanging style
3) Styles in the air or walk in the water

According to Gunter Bernhard (2000: 84) the long jump style consists of: 1) Jumping jump form, 2) jumping form, 3) walking jump

Of these styles not all students use it in making a jump, students will choose the style that is usually done when the method of learning according to the skills possessed, because it is impossible to change

ISBN 978-616-278-391-3

the style when the race took place. The type of style used by the sample in this study is the long jump style squatting.

Long jump consists of four stages of movement that is prefix or square off, refuse, float in the air and landed. The stages of the movement will be interconnected with each other to form a motion system that can not be separated. The movement that started off from the repulsion boards floated in the air and ended by landing in a sandbox. The main components are as follows:

1) Prefix
2) Please
3) When flying
4) Landed

While the components according to the athletic book, by Gunter Bernhard mentioned:

1) Ancient
2) Prepare the jump and its boundaries
3) Phase float
4) Landing

Improved capabilities in the long jump included in the closed skill type ie the jumper shows increased steadiness in motion patterns corresponding to the sequence of motion in the long jump.

There are several elements that affect the results of the leap motion of the distance when menola, the distance when flying, and the distance when landing. This can be seen in the following figure:

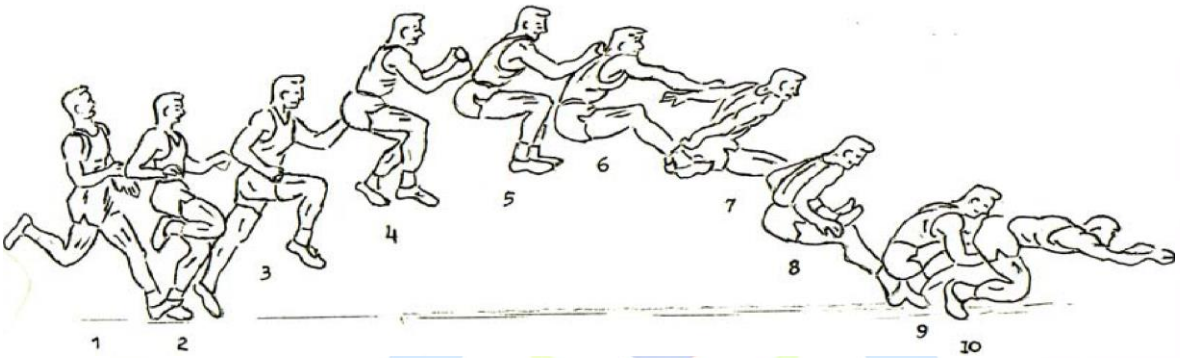


Figure 1: Squat Jump Style Awakening Movement
Source: http // file.upi.bambangsunarno / .pdelajarblocking / .pdf.

1) Prefix

Prefix is a start movement in the form of running to get the speed at which time will perform repulsion or leap. Speed obtained from the prefix is called the horizontal speed, which is very useful to help the force at the time of repulsion upwards. In order to produce a large repulsion, the step of the prefix must be done steadily and stomping.

The prefix must be done as quickly as possible and do not change the step when it will jump. The starting distance is usually 30 - 40 meters. The speed and accuracy in the prefix greatly affects the jump results. This means that the running speed of the prefix is a must to achieve the best possible result. The speedless jumper has absolutely no hope of achieving the best outcome.

To be able to perform a good start prefix, need to pay attention and do things as follows:

(A) Running distance depends on each jumper.

ISBN 978-616-278-391-3

(B) Running distance should be sufficiently far to get maximum speed. Length of prefix 30 - 40 meters, for elementary school age between
15 - 20 meters.
(C) Running speed and step rhythm must be flat.
(D) In the final step, the mind is centered to jump as high as forward.
(E) The final step is minimized in order to be able to refute upwards more perfectly.
(F) Running behavior such as short run.
Precautions or pedestals (take off)
Cultivation or support is a very rapid movement between running, prefix and hovering. A few steps before the support, the jumper should be ready to rest. All his energy and mind, should be directed against the preciseness of the weight. At that moment the jumper moves from run to float state. In order to drift further, apart from the running speed the prefix is required in addition to the power of the support force, the power of the legs accompanied by arms and swing legs.
When the body should be leaning forward should the body lean forward, the point of weight should be located upright at the point of power source, ie the limb rests on the jumping jumper.
The full speed of the jumper must move his movement from repulsion to the best angle, which is 450. To change the direction of his movement, it must prepare his repulsion at the last three steps.
To do this he bends slightly and his steps slowed down in an attempt to reach heights. At the start of the block of repulsion, the foot of the front foot there is a weight point. The soles of the feet touch the block when the center of gravity moves forward 3.5 feet. Here there is a slight slowdown at the time of departure. The slowdown will not affect the jump achieved as long as the ideal angle 450 can be achieved.
From the aforementioned opinion it can be concluded the purpose of the long jumper performing the pedestal or repulsion is to convert the running motion into a leap using the strongest pivot foot, the jumper must exert his movement from the beam of repulsion upward with the best angle, which is 450, to change the direction of his movement he must Preparing for repulsion at the last three steps. For more details see the picture below:

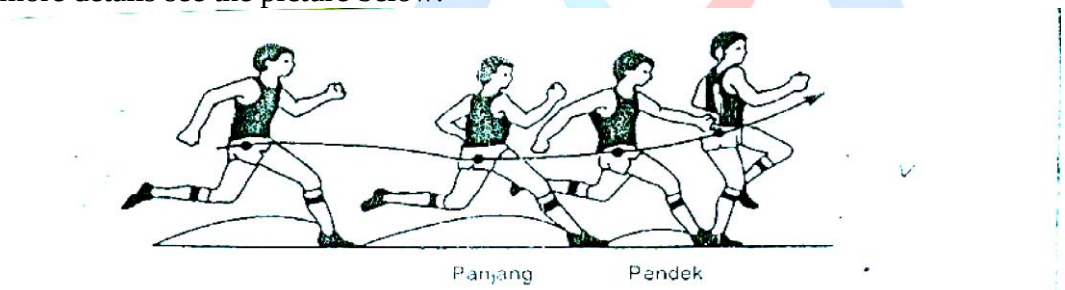


Figure 2: How to Perform Stake Motion (take off)
Source: Carr, Gary, Athletics (translation edition), (Jakarta Raja Grafindo Persada, 2000), h.46
Information :
A. When the feet will rest on the leap beam
B. When the foot rests on a jumping beam
C. When the foot of the pivot will be separated from the jump beam

To be able to perform a very strong repulsion or pedestal there are two factors to be considered, namely: the horizontal speed obtained from the prefix and vertical speed obtained from the strength of repulsion or pedestal. From these two velocities, we will get the speed of the alloy which determines the motion of weight point (Yusuf Adisasmita, 1992: 65).

The attitude of the body in the air

In the long jump technique, after the jump jumps on the jumping beam, the jumper jumps. The rise of the body after the pedestal (float) is one of the factors that are often neglected by jumpers. After resting on a pivot foot, joins often do not allow longer time in the air. Usually limbs pedestals hastily landed on a sandbox. In this case it is important to straighten the limbs quickly to gain a height so that we can fly higher. At the time of rising the body should be held in a state of unbalance (relax), then perform body postures to maintain balance and to allow a more complete landing. The movement of body posture in the air (floating time) is usually called the jumping force in the long jump.

Body mc balance of the body anc ırly. For more clearly se

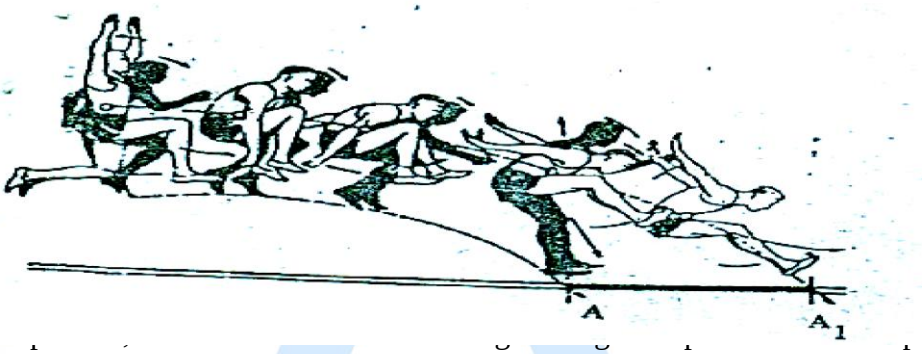


Figure 3:
Source: (, p.47

To help rinciple is the momentum of the passage transferred to the whole. Upward leg swing locks the joints due to the work of the iliofemoral Ligament. Therefore the knee leg should be slightly bent.

According to some opinions above that hovering is at the time the jumper disconnects from the board, the motion like the bullet trajectory of the force center curve that has been done can not be changed. However the movement in the air helps the jumper to regulate the balance and prepare an effective landing position.

4) Landing

At the time of landing the jumper should be able to cultivate his arm extending far to the face with no loss of balance. At this moment the feeling arises that the body will fall backward. To prevent it, the weight should be brought forward by bending the body, so that the body and knees almost docked are also assisted with a hand-to-face forward. At the time of the landing, the knee is bent so that it can allow a momentum to carry the body forward on the foot. Landing is done with a heel first on the ground.

As the jumper steps on the ground the arm is swung forward, knees bent and body leaning forward. This movement carries the weight points falling below the floating line, providing momentum on the body and preventing further back on the heel resulting in reduced jump spacing.

The attitude of the body at the time of falling or landing, that is, the jumper should try to fall or land as well as possible. Do not fall into the body or hands behind, because it can be harmful. Good landing is when landing or fall with both feet and hands forward, so suppose the fall of the future will not harm (Engkos Kosasih, 1993: 84).

ISBN 978-616-278-391-3

So from the description of learning outcomes and long jump above can be concluded that the results of long jump learning is the mastery level achieved by students from pengusaan long jump movement after following the learning process obtained through the test by using the test instrument that has been tested its validity and reliability, finally can be determined In the form of scores or grades.

4. The nature of Demonstration Learning Method

Demonstration in relation to information presentation can be interpreted as a demonstration attempt on a way of doing things. Demonstration model is a model of teaching by demonstrating, occurring, rules and sequence of activities, either directly or through the use of teaching media relevant to the subject being presented. So a demonstration is a way of teaching where an instructor / teacher team shows, showing a process such as boiling water to boiling 100 degrees Celsius, so that all students in the class, seeing, observing, listening may feel and feel the process shown by the teacher. (Roestiyah, 2001: 83). Thus the students are invited to be able to see, hear and even feel at the same time in teaching and learning process.

The main purpose of using this model in the learning process is to clarify the notion of concept and pay attention to how to do something or the process of something happening. (Istarani, 2011: 101).

Steps: Yamin (2007: 75) says that demonstration models can be used provided that they have the expertise to demonstrate the use of tools or carry out specific activities such as actual activities. The skill of demonstrating should be owned by a designated teacher and trainer, once demonstrated, students are given the opportunity to do the skill exercises as exhibited by the teacher or coach.

Therefore, if you want to use demonstration models in teaching and learning process to be effective, then according Roestiyah (2001: 84) need to pay attention to things as follows:

A) Teachers should be able to formulate the objective formula in order to give a strong motivation to students to learn.

B) Consider carefully whether your demonstration options are capable of ensuring that your goals have been achieved.

C) Observe whether the number of students provides an opportunity for a successful demonstration, if not formulated.

D) Have you examined the tools and materials to be used on the number, condition, and location. Also you need to get to know it well, or have tried first to get the demonstration to work.

E) Must have outlined the steps to be taken.

F) Is there enough time, so that you can give information if necessary, and students ask.

G) During the demonstration the teacher should give the students a chance to observe well and ask questions.

H) You need to evaluate whether your demonstration is successful, if necessary the demonstration can be repeated.

Therefore, Yamin (2007: 76-77) said that the demonstration model can be implemented:

A) When learning activities are formal, internships, or work training.

B) If the subject matter is in the form of simple motion guidance skills to perform skills using a foreign language, and procedures for carrying out an activity.

C) When teachers, trainers, instructors intend to simplify the completion of long activities, both involving the implementation of a procedure and theoretical basis.

D) The teacher intends to show the standard of appearance.

E) To grow students' motivation about / practice being implemented.

F) To reduce errors when compared to listening to lectures or reading in a book, because students get a clear picture of their observations.
G) If some of the questions that raise questions to students can be answered more carefully during the demonstration or experiment process.
H) When students actively experiment, they will gain practical experiences to develop skills and gain recognition and expectation from the social environment.
In relation to the above, then the systematic steps to use demonstration model to do is as follows:
A) The teacher conveys the competence to be achieved.
B) The teacher presents a glimpse of the material to be presented
C) Preparing materials or tools required.
D) Appoint one of the learners to demonstrate according to the prepared scenario.
E) All learners pay attention to the demonstration and analyze it.
F) Each learner expresses the results of the analysis as well as the experience of the learner in demonstration.
G) The teacher makes the conclusion.

A) Excellence Demonstration Method
Roestiyah (2001: 83) says that with the demonstration, the process of receiving students to the lessons will be more memorable in depth.
So as to form understanding well and perfect. Also students can observe and pay attention to what the teacher shows during the lesson, so this demonstration model is very effective in helping students find answers to questions such as: how is the process? Consisting of what element? Which way is best? How can you tell the truth? Through inductive observation. (Yamin, 2007: 76).

B) Weakness of Demonstration Method
There are limits to be known when you want to use demonstration models in the teaching and learning process as stated by Yamin (2007: 77) namely:
A) The demonstration will be an unnatural model if the tool demonstrated can not be observed closely by the student.
B) Demonstrations are less effective when not followed by all activities where students themselves can experiment and make the activity a personal experience.
C) Not all things can be demonstrated in the group.
D) Sometimes, when a device is brought into the classroom then it is demonstrated that there is a different process with the process in the real situation.
E) When everyone is asked to demonstrate can take a lot of time, and boring for other participants.
Demonstration models may be used provided that they have the expertise to demonstrate the use of tools or carry out specific activities such as actual activities. The skill of demonstrating should be owned by a designated teacher and trainer, once demonstrated, students are given the opportunity to do the skill exercises as exhibited by the teacher or coach.
Based on the above description allegedly by optimizing the implementation of demonstration methods can improve learning outcomes in learning Long Jump on the students of class VIII Private Amal Bakti Junior High School Medan academic year 2015/2016.

ISBN 978-616-278-391-3

3. Results and Discussion

A. Location And Time Research

1. Research Sites

The research location is in SMP Swasta Amal Bakti Meda

2. Time of Research

The study was planned in August 2015 with the research frequency in accordance with RPP and School Syllabus.

B. Research Subject

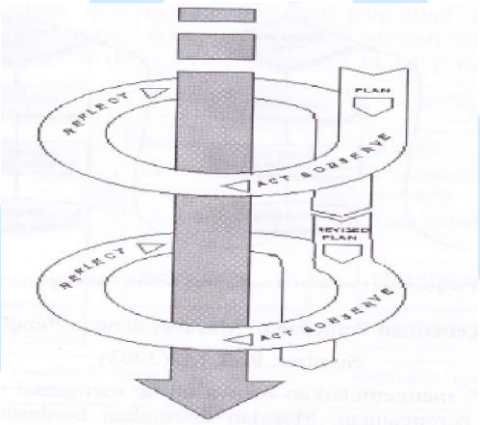
In the research of teaching style of Demonstration to improve the learning result of Long Jump is VIII class of Private Junior High School Amal Bakti Medan with 25 students with 15 female students and 10 male students.

C. Research Methods

This research method is classroom action research (Classroom Action Research). The approach used is a qualitative approach that is useful for expressing students' learning difficulties in the learning process of physical education and how to overcome these difficulties as an effort to improve student learning outcomes on the material Jump Far.

D. Research Design

The design used in this study is the type of classroom action research in the form of initial reflection and observation to identify the problems that occur, for more details following the scheme put forward by Endang Mulyatiningsi as seen in the scheme in the following:



Picture .1 Model of Kemmis and Taggart.

Source: Endang Mulyatiningsih, Applied Research Methods Field of Education (Bandung: Alfabeta, 2011: 70).

In accordance with the type of research that is classroom action research then in the design of this study have stages such as planning, implementation, observation and reflection, As described in the form of the following cycles;

1. Cycle I

ISBN 978-616-278-391-3

A. Stage of Action Plan I (Alternative Solving I)

At this stage the activities undertaken are planning the class action in the form of making the Learning Implementation Plan (RPP) adapted to the difficulties experienced by the students in the long jump learning using the demonstration model. Another activity carried out is loading the test results I.

B. Stage of Action Implementation I

After the planning is arranged then the classroom action to the difficulties faced by the students, that is by giving the treatment using a model of demonstration on learning long jump material conducted by physical education teachers in school, while researchers act as observers assisted by other teachers of physical education and teaching activities undertaken Is the development and implementation of the learning program that has been neatly arranged. The implementation is explained as below:

1. Preparing the students and the lesson sheets in the field.
2. Direct students to warm up.
3. Giving learning materials long jump through the forms of movement by using the model of demonstration learning and students implement the movement.
4. Provide an opportunity for students to ask questions about the material being taught.
5. Provide opportunities for students to practice independently.
6. Implement the test results of learning I.

C. Observation and Evaluation I

At this stage the observation and evaluation of the implementation of the action has been carried out. The teacher in the field of pearl study participates as an observer to see the shortcomings and whether the condition of teaching and learning in the classroom has been done in accordance with the teaching program when the action is done and the teacher is also acting as an appraiser when collecting data on student learning outcomes. Observations are conducted in accordance with the assessment aspects found in the learning observation sheet.

D. Reflection Phase I

The results obtained from several stages of action and observation are collected and analyzed at this stage, so that it can be concluded that the action taken from the result of the learning test I. The results of this reflection is used as the basis for the planning phase in cycle II.

2. Cycle II

A. Stage of Action Plan II (Alternative Solving II)

At this stage the activities undertaken are planning the class action in the form of making the Learning Implementation Plan (RPP) adapted to the difficulties experienced by the students in the long jump learning using the demonstration model. Another activity carried out is to load test results of learning II.

B. Implementation Phase of Action II

After the planning is arranged then the classroom action to the difficulties faced by the students, that is by giving the treatment using a model of demonstration on learning long jump material conducted by physical education teachers in school, while researchers act as observers assisted by other teachers of physical education and teaching activities undertaken Is the development and implementation of the learning program that has been neatly arranged. The implementation is explained as below:

1. Preparing the students and the lesson sheets in the field.
2. Direct students to warm up.

ISBN 978-616-278-391-3

3. Giving learning materials long jump through the forms of movement by using the model of demonstration learning and students implement the movement.
4. Provide an opportunity for students to perform basic engineering techniques to jump to students.
5. Provide opportunities for students to practice independently.
6. Implement the test results of learning II.

C. Observation and Evaluation I

At this stage the observation and evaluation of the implementation of the action has been carried out. The teacher in the field of pearl study participates as an observer to see the shortcomings and whether the condition of teaching and learning in the classroom has been done in accordance with the teaching program when the action is done and the teacher is also acting as an appraiser when collecting data on student learning outcomes. Observations are conducted in accordance with the assessment aspects found in the learning observation sheet.

D. Reflection Phase I

The results obtained from several stages of action and observation were collected and analyzed at this stage, so that it can be concluded that the action taken from the second learning test results in the increase of the Long Distance Learning Results by using the Demonstration Learning Model. So this learning ends in cycle II and does not continue into the next cycle because of the percentage of completeness is 80% classical.

E. Research Instruments

The dependent variable that will be measured is the result of long jump learning with the use of demonstration learning model on the students of grade VIII SMP Amal Bakti The research is as follows:

1. Test

One of the methods used to determine students' learning ability is the test. In the test the test conducted a learning achievement test. The test of learning outcomes was given to find out whether the students' learning outcomes in the teaching and learning process improved by using modified media,

Tools used:

A. The assessment sheet (portfolio) and stationery

Implementation Test:

A. Students are lined up 4 bersap and mengapadap spaciousness
B. Students perform basic long jump techniques
C. Students are given 3 times a chance to jump
D. Each assessor / kolabolator observes a student who is doing a long jump test adjusting the portfolio sheet.
E. 3 assessment teams consisting of 1 teacher and 2 long jump athletes

How to calculate Score:

Assessment of the results of long jump learning is done by a student, and is done through a review sheet observation process of long jump results.

F. Data Analysis Technique

The data collection tool in this research is a portfolio research sheet of the test results of learning I and II. The test of the learning result is given after the teacher uses the simple media done. In this test the student is asked to do the Long Jump series

1. Data Reduction

Data reduction process is done by selecting, simplifying and transforming data that has been presented in transcript of field notes. This data reduction activity aims to see the errors or lack of students in the implementation of the test will be the action of what students do to correct errors and shortcomings of students.

2. Data Exposure

In this activity, the data obtained from student learning outcomes presented in tabular form using the formula that has been determined. To know the development of thoroughness of learning results javelin throwing class VIII SMP Private Amal Bakti Medan used the value of KKM (Criteria Completed Minimum) subjects PENJASKES SMP KTSP

If the indicator has high complexity criteria, high carrying capacity and moderate student intake, then the KKM value is:

With the criteria: Criteria mastery learning

8.00 = very high = complete
7.50-7.99 = high = complete
7.00-7.49 = medium = complete
<7.00 = low = incomplete

Source: KKM Depdiknas (2008)

From the description above can be known to students who have not completed in learning and students who have completed in studying individually. Furthermore can also be known whether the mastery of learning can be achieved klasikal, seen from the percentage of students who have completed learning can be formulated as follows:

Finding mastery learning students by classical formula:

Information:

PKK: Percentage of classical mastery

M: Number of students are KKM ≥ 70

N: Number of students

Suryosubroto, (2000: 129)

By group (klasikal), learning mastery is stated has been reached if at least 85% of students in the group concerned have met the minimum completeness criteria per individual by 70%.

CHAPTER IV
RESEARCH RESULT AND DISCUSSION

A. Description of Research Results

1. Data of Learning Observation Results

This research was conducted in Private Junior High School Amal Bakti Medan Year 2015/2016. From the observation it is known that from 25 students, 5 students reach the completeness of study and 20 students have not reached mastery learning. This is necessary as a preliminary information for

ISBN 978-616-278-391-3

researchers to provide problem solving and constraints faced by students in the process of learning Long Jump.

The description of the results of observations on students can be seen from the table below:

Table 4.1 Description of the Long Jump Observation on the students

2. Data Learning Outcomes Long Jump

Based on the description table the results of the Long Jump test can be seen that the results on the implementation on the implementation of Cycle I got an average score of 70.0 and in Cycle II there is a better improvement where the average class of 80.0.

After giving the action of cycle I, students are given test result of learning I which is then obtained by 15 students who have reached completeness learn denagkan 10 students who have not achieved the expected learning mastery. In the first cycle obtained an average score of 70.0 with 60% complete classical learning achievement but not fulfill the expected classical completeness criteria is 85%.

Then after the action is given in cycle II, students are given a second test result of learning that is then obtained as many as 22 students have reached the completeness of learning and 3 people have not reached mastery in learning. In the second cycle obtained an average value of 80.0 with a classical learning completeness rate of 88%, it has fulfilled the criteria mastery 85% classical.

B. Results of the study

1. Cycle I

A. Planning

Before planning, first create a learning scenario that contains steps of activities in learning by using the application of Demonstration Method where the material in this learning is the process of learning Jump Far as the implementation to be discussed are:

• Planning a Lesson Plans (RPP)
• Develop teaching materials on the Long Jump
• Preparing lesson with Demonstration learning method

Implemented long jump learning by using demonstration method to improve students' learning result of SMP Swasta Amal Bakti Medan.

B. Implementation of Action

Furthermore, in this activity the implementation carried out by the auxiliary researcher who acts as the pemas teacher is applying the demonstration method. Implementing the Long Jump learning with the following activity description:

Explain the long jump learning clearly.
Conduct question and answer on the learning that has been explained.
Teacher gives students the opportunity to line up according to their own group.
Then the teacher demonstrates the long jump learning well and correctly.
Conduct test results in accordance with the student duty sheet
Teachers and students together conclude today's lesson.

Teachers improve student learning outcomes, on the activities of researchers make observations / observations to students during the learning took place, so with the observation of students during the learning took place.

C. RESEARCH RESULTS

Observations and observations are carried out by researchers starting from the beginning of the action implementation to the end of the implementation of the learning action through the Demonstration

Method as an effort to improve the long jump learning outcomes. From the results of observation can be seen that the learning activities have been going well but there are still some shortcomings in the learning process.

Physical education teachers provide the Long Jump material using the Demonstration Method. In the given material, teachers and researchers provide a form of learning to each group in order to repeat the existing learning. Through the application of demonstration methods students can explore and know the wrong movement and correct movement.

Assessment for teachers in cycle I:

1. At the time of preliminary activities, the researcher gives good criteria because the teacher is able to attract the students interest in conveying apperception and motivate the students in learning Jump Far.
2. At the time the learning process takes place the teacher explains the learning well and clear so that students carry out the learning with passion.
3. At the time of carrying out the test took place the teacher gave araan and motivation to the students to do their best to get the maximum value
4. At the end of the learning the teacher gives conclusions and suggestions to students who do not understand and have not understood in the implementation of Long jump so that students do not implement the same mistakes.

Assessment for student I:

1. When students warm up in the introduction of student learning follow the activities given by the teacher with passion
2. At the time of carrying out the student learning to do with the antusisan and glossed because of the direction and motivation of the teacher
3. When the lesson ends, the students ask the teacher confidently that they understand the part they mention.

Based on the table can be seen the results of the Long Jump test has 4 aspects, namely, Attitudes Preferences, Attitudes of Tolerance, Attitude Floating in the Air and Attitudes Continued. At the prefix score 4 there were 7 values (19.5%) who got score 3 there were 77 values that emerged (21.9%) and who got the score 2 there were 82 values that emerged (23.8%) and who got the score The value of 1 there are 3 values that emerged (8.4%), where the results of the attitude of the implementation of the value of 4 amounted to 47 values emerging (13.5%) who got the value of 3 amounted to 68 values emerging (18.9%) who got the value of 2 amounted to 30 The value that appears (83.4%) who got the value 1 there is 1 value that appears (2.8%). In attitudes that got a score of 4 there were 26 values that emerged (72.3%) who got the value of 3 amounted to 58 values emerging (17.2%) which got the value 2 amounted to 40 values that emerged (12.2%) and who have value 1 amounted to 3 values that emerged (8.4%).

The results of the first cycle test of 25 students who took the test turned out to have 15 students (66%) who have reached the level of learning, the rest of the 10 students (33%) have not reached the level of mastery learning because the students do not do a good follow-up attitude, expected In the next learning the student can perform the final attitude / movement continued well. The average value obtained is 75 (complete).

Based on the completeness of the learning outcomes obtained by cycle I, it can be illustrated that the unfinished student (33%) has an error in doing the long jump as follows:

1. Found at the attitude of the implementation of 33% of students less implement the Long Jump.

2. Most students at the time of the Long Jump can not do good repercussions so that many students pass through the board and there is also before the student's board has jumped.
3. Needs enough exercise to learn the technique of long jump properly and correctly.

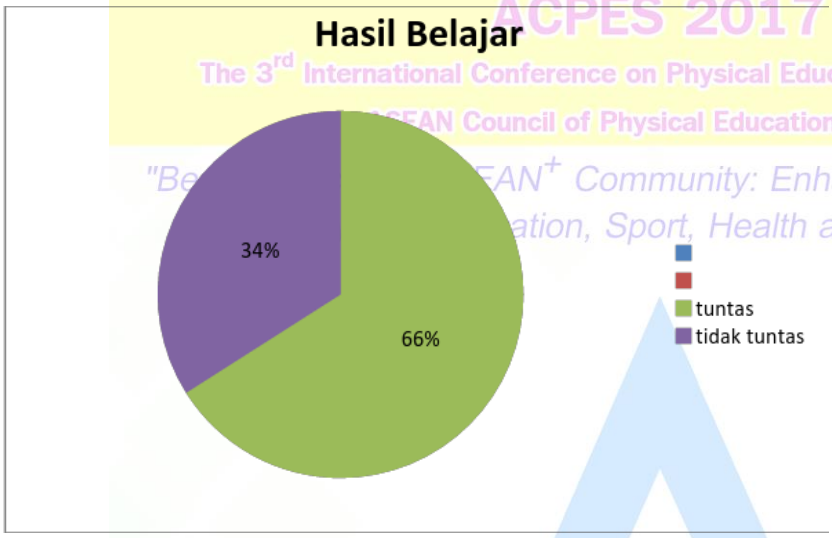


Figure 4.1 Graph Presentation Completed Learning Outcomes Long Jump
Cycle I

C. Reflection

Based on the results of data analysis on the cycle I can be concluded that through the media Demonstration Method on the Jump Material has success as follows:
1. Teach students about the technique Jump Away from start to finish
2. Students are more active in studying Long Jump because researchers provide Demonstration Method.
3. Can solve problems in the learning process that researchers offer methods of learning methods of demonstration.
4. There are 15 students who are complete in learning, and 10 students who do not tunttas with a value of 71,3.

In addition to having success, there are also obstacles or obstacles encountered during the Limp Jump learning include:
1. Not all students (34%) are able to do Long Jump
2. Students are still difficult to make long jumps, especially when repelling most students do not reply right when doing repulsion there is a repulsion past the pedestal is not right at the time of rejection.
3. Requires considerable learning variation to learn the technique of Long Jump well.

Here is a solution to solve the problems or obstacles encountered during the Long Jump learning through the following demonstration methods:
1. Motivate students to do learning in earnest in order to achieve mastery

ISBN 978-616-278-391-3

2. Demonstrate the student's long jump learning especially when skipping or when rejecting the pedestal
3. Assign tasks related to learning materials Jump long.

Expected through the above solutions can improve student learning so as to achieve mastery 85% classically.

The classical completeness criteria obtained in the first cycle of learning is 34% (not complete), but the expected classical completeness criteria that is 85% has not reached then it is necessary to do cycle II to improve the learning completeness criteria as expected and improve the kesulitas that Faced by students in cycle I so that will happen improvement in cycle II. Aspects that need to be improved are:

1. The ability to ask the teacher, because only a few students who want to ask teachers related to learning long jump.
2. Improve the technique of long jump learning in order to improve mastery.

Implementation must be in accordance with the planning that has been made and improve the interaction between students and teachers should be more optimized, because it affects the results to be gained by students. On reflection this action is also explained that at the time of the observer's observation stage of learning for teachers and students.

2. Implementation of Cycle II

A. Planning

Based on the results of the researcher's reflection on cycle I, the action planning in cycle II is arranged to overcome the problems experienced during long jump learning. Teachers and researchers explain to students about the deficiencies that need to be fixed.

At this stage the research makes an alternative to master kesulitasn students in learning Jump Far is:

1. Preparing the learning implementation plan (RPP) as an effort to correct the deficiencies that occur in cycle I
2. Preparing lessons with demonstration methods.
3. Explain and model the technique of Long Jump.
4. Ensure that students are more active during the learning process takes place.
5. Preparing the second cycle test instrument.

B. Implementation of Action II

Implementation of Action II focuses on learning process that can improve student learning outcomes through the implementation of demonstration methods with, especially on indicators of low achievement in cycle I. The steps undertaken by teachers are:

1. Providing motivation to students to better in carrying out the learning process, then show the students.
2. Line up students in groups and then warm up and then perform demonstrations on learning long jump.
3. Provide direction and guidance of students practice long jump well and correctly.
4. Drawing conclusions from the learning activities that have taken place.
5. Test and cover

• Retrieve the Long Jump test
• Drawing conclusions and feedback
• Cooling

D. Observation Result II

The same thing with cycle I, observation and observation II is done by the teacher of Junior High School Private Amal Bakti Medan starting from the beginning of implementation until the end of the implementation of the action of learning through the demonstration method as an effort to improve student learning outcomes on the material Jump Far.

In this cycle teachers and students look more mature with learning activities that students are always enthusiastic and passionate in megikuti learning activities through demonstration methods using the method of demonstration. As the activity progresses, the students are getting better and more correct in the long jump, where the students already understand how the attitude of the moment after melakuakan Jump Away.

At this meeting, students' abilities increase with the results of the majority of students obtaining the criteria with very good and correct results.

Assessment for teachers in cycle II:

1. At the time of preliminary activities, the researcher gave very good criteria because the teacher was able to attract the interest and attention of the students in delivering apersepsi and motivating the students in learning Jump Far.
2. At the time of the learning process is done students carry out the previous learning that students are right and wrong so that students can analyze the fatal movement and teachers can direct and explain the material clearly and purposefully.
3. At the time of the test the teacher gives motivation to the students and this assessment is good enough because the student can perform the test correctly
4. At the time of closing the assessment of teachers is quite good because here teachers interact to students and communicate concluded the teaching materials with students and make students conclude more material.

Assessment for students in cycle II

1. At the time of the long jump jumping students show the attitude of learning carefully and pay attention to explanations of teachers wrong movement and correct movement then the criteria on the students very well.
2. At the time of implementing the learning process students showed a very good attitude because students are very excited and start minimizing mistakes made in cycle I
3. At the time of the test the results were done very well because the students carried out the test with full confidence and only 3% of the students who undertook were still in doubt and lack confidence.
4. At the time of student evaluation shows a good attitude because students conclude the learning that has been completed on this day.

The table explains that in the initial attitudes that get the 4th score there are 20 values that appear (55.6%), which got the value of 3 there are 80 values appearing (22.3%) that got the value 2 there are 13 values emerging (36.2%). In attitudes that got score 4, there were 35 values that emerged (97.2%), students who scored 3 there were 30 values that emerged (83.3%), who got a score of 2, there were 32 values (88.9%) there is no. A follow-up attitude that scores 4 has 35 values emerging (83.3%), which scores 3 there are 30 values emerging (83.3%) that got a value of 2 there are 32 values appearing (88.9%) that got a value of 1 none. When attitudes continued with a score of 4, there were 35 values (83.3%) that scored 3 of which 30 values appeared (83.3%) of which 3 scores had 12 values (33.4%) of which 1 was missing.

ISBN 978-616-278-391-3

Second cycle test results from 25 students who took the test there were 22 students (88%) who have reached the level of mastery of learning and 3 students (13%) did not achieve mastery learning. From the observation results can be seen that the learning activities have been going well because the average value that has been obtained is 86.2% (Tuntas) where students have been able to reach the level of mastery learning.

Based on the completeness of the learning results obtained in Cycle II, it can be illustrated that the unfinished student (12%) has an error in doing the Long Jump as follows:

1. Found 12% of students who still do not understand the position of the foot when the Long Jump is still not well controlled.

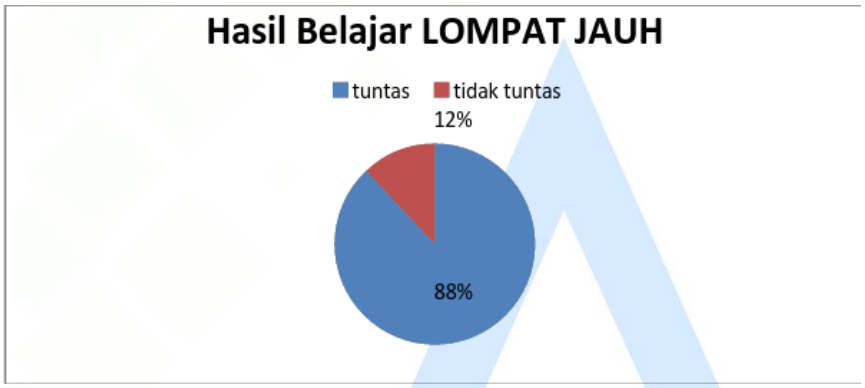


Figure 4.2 Graphs of completeness percentage of learning results Long Jump Cycle II

E. Reflection Action II

From the analytical tests conducted, it was found that teachers have been able to motivate and guide students and it can be concluded that there has been an increase in the overall technique of long jump. This increase occurs after being given learning by applying variation of learning designed on cycle II that is referred to in experience from cycle I.

In the test result of learning I there are 66% of students who achieve learning completeness, whereas in the test of learning result II there are 88% of students who achieve mastery learning and there is an increase so it can be concluded learning Jump Through through the learning contained in the test results of learning I and II has increased .

F. Discussion of Research Results

From the data analysis that has been done can be concluded that through learning can improve the results of learning long jump. From the data analysis can also be known that from the initial test is still low, then the application of learning through demonstration methods on the process of learning long jump. Then from the data analysis also known that student learning outcomes from the test results of learning cycle I through the application of learning there is an increase,

ISBN 978-616-278-391-3

but do not meet the criteria of classical completeness (ie> 85%) so that the improvement of action in cycle II.

Based on the results of research after giving the action of teaching with the application of learning methods in cycle I obtained an average value of 71.3 with a 66% completeness. Then on the learning cycle II can be seen that there has been an increase in student learning activities from the previous cycle. In the result of learning test siklsu II obtained an average value of 80.0 with a value of 88% completeness in which the increase in classical learning outcomes from cycle I and cycle II by 25%.

Mastery of technique in every sport is the key to success, as well as in the Long Jump. Learning through the Demonstration Method can be used as a material to provide learning materials, but through demonstration methods tailored to the subject matter, the state of the student and the availability of facilities and infrastructure at school.

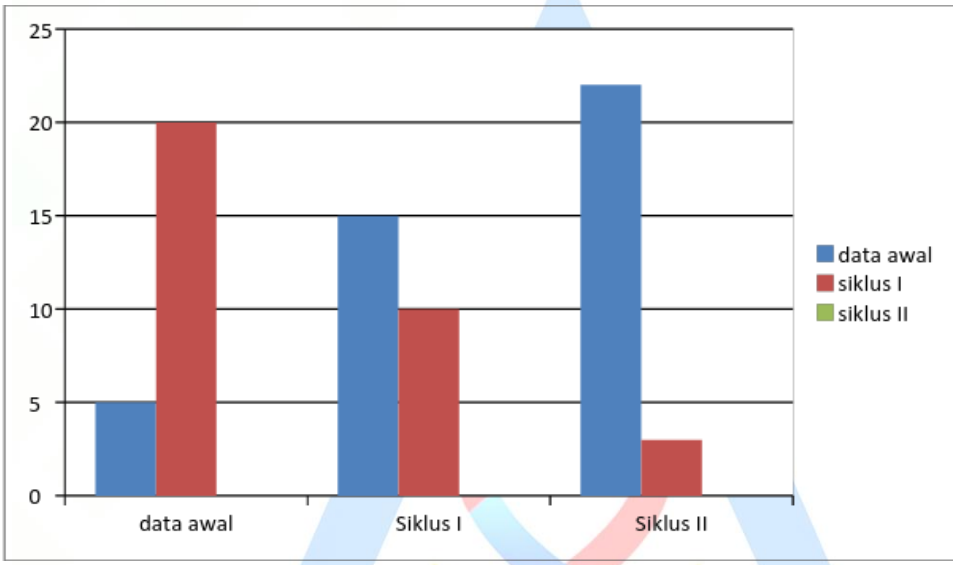


Figure 4.3 Comparison Chart Initial data, cycle I and Cycle II

Thus it can be said through learning by Demonstration Method can improve the learning of long jump which was initially low then become increasing.

4. Conclusions

A. Conclusion

Based on the results of research that has been presented, generally it can be concluded that:

The increase of student learning outcomes through the Method of Long Jump Demonstration on VII students of Private Junior High School Amal Bakti Medan.Pada cycle I students are quite enthusiastic in following the Long Jump learning In accordance with the reflection, with the average grade of distance learning distance is 76.3 with percentage Completeness of 66% of students who graduate and student learning outcomes in the second cycle is 80.7 with the percentage of completeness 88% can be concluded that there is a significant increase in learning outcomes in cycle II.

ISBN 978-616-278-391-4

B. Suggestions

The researcher can provide suggestions as follows:

1. Physical education teachers should be creative in addressing the lack of learning facilities and infrastructure that exist in the school.
2. Teachers should have and design various models of learning, so students are not saturated.
3. Application of technology in physical education is also needed to improve the quality of the learning process
4. Submission of learning should be tailored to the circumstances of students in each school, so that students can understand and master what is conveyed by the teacher.
5. Teachers can apply learning method of physical education through Demonstration Method as one approach in teaching, so that students do not get bored, and more active in the learning process.

ISBN 978-616-278-391-3

ACPES 2017
The 3rd International Conference on Physical Education, Health and Sport
ASEAN Council of Physical Education and Sport
"Best Practice for ASEAN+ Community: Enhancing Physical Activity, Physical Education, Sport, Health and Recreation"
2 - 5 September 2017
Saen Palm Convention Hall, Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom,Thailand
Hosted by: Kasetsart University

ACPES25-Full

RESEARCH ON NUTRITION ATHLETE OF PETANQUE NORTH SUMATERA

Liliana Puspa Sari

Lecturer of Sport and Health Academy Bina Guna Medan

Abstract

Nutrition is one of the factors that influences the achievement of Petanque athletes of North Sumatra, so it is necessary to be considered and adjusted nutritional needs with physical activity during the training program.

The aim of the study is to find about the nutritional status of Petanque athletes in The North of Sumatra in 2017.

The research methodology is a descriptive method. The number of trial are fifteen people obtained through total sample techniques. The study was conducted at Petanque Dormitory High School of Sport and Health Bina Guna Medan. Instrument used to see the athlete's nutritional status is by using Body Mass Index (BMI) measurement which measured height, weight, and age of each athlete. In addition, also carried out questionnaires to the athletes who contained about the diet, diet, resting patterns and family background. The result of questionnaire is useful as input of this research.

Furthermore, the measurement results are calculated using the formula BMI and then the calculation results are converted with BMI table to determine the nutritional status of athletes, whether in the state of lack, normal or obesity.

Based on the calculation results obtained that the nutritional status of athletes Petanque North Sumatra is in the normal category of 93% (14 people), while 7% (1 person) is in the category of obesity.

Keywords: Nutritional Status, and Petanque Athletes of North Sumatra

PRELIMINARY

Simply food is all that is eaten and drunk everyday by an athlete. Food substances are the basic ingredients that make up food ingredients. Food substances or nutrients are: carbohydrates, proteins, fats, vitamins and minerals. Foods that consume by the athlete should be well ordered to follow the flow needs of the athlete's activities. With other understandings, if the food is well ordered, of course, it will support the achievement of the athlete's achievement, and vice versa if athlete food is not organized will be a big problem in achieving. Arranging an athlete's diet certainly refers to the interests of the sports branch that the athlete occupies.

From the description above, the author found the initial question, whether the food consumed Petanque athletes of North Sumatra has to meet the calorie needs that are issued during exercise? To answer this question, there are several ways that can be done, among others, by monitoring the food menu consumed athletes then calculate the calorie content that contained in the food. In addition, it can also be calculated by measuring the nutritional status of the athlete.

After going through the planning and observation, the author gets information that research on the nutritional adequacy of Petanque athletes of North Sumatra has been studied by previous researchers. So the author is interested to examine the nutritional status of Petanque athletes of North Sumatra.

LITERATURE REVIEW

1. Nutritional Nature

The word comes from the Arabic word "ghiza" which means to eat, in this case the food can also be called nutrients. In general, the definition of nutrition is a processed food substance in the body which is then used by the body to growth and health of the body. Health is absolutely necessary for everyone to maintain the work function of the limbs to continue their activities and to maintain their survival.

According to A.Djaeni (1996: 20) "according to its function in the body, umu food substances that can also be divided into several parts, namely:

A. As a source of energy or energy
B. Supporting body growth
C. Maintain body tissue, replace damaged or worn out cells.
D. Regulates metabolism and regulates various balances.
E. Role in the body's defense metabolism against various diseases, such as anti-toxin and other anti-body.

It can be said that the role of nutrition is very important and is at the highest level in life. If the organ does not function properly then the organ can be said to have a health disorder in other words sick. If the organs are not functioning properly then the organs can not perform activities to the fullest. So good bad nutrition closely related to the health of the food consumed every day. Nutrition problem is not a problem that has been solved, not easy to achieve good nutrition. To

ISBN 978-616-278-391-3

achieve good nutrition one must understand and realize what it consumes. Eating less nutritious foods can be detrimental to health.

2. The Role of Athlete Nutrition

High achievement demands on the sportsman is very important, so that all fields of science have been applied for the achievement of the desired achievement. Including the application of nutrition is very important to be a concern. An athlete can go through the process toward desirable achievement should get the right energy from consuming foods containing the nutrients needed by the body during the exercise because good physical condition is supported by good nutrition as well.

In the fulfillment of nutritional needs is not an easy problem, because to achieve good nutrition there are conditions to be done and not just a full stomach. As described by Rahmat (1999: 1) "Good nutrition is food that provides the nutrients needed by the body in accordance with the activities undertaken".

According to Sunita Almatsier (2001: 132) "Humans need energy to sustain life, support growth and perform physical activity." Therefore an athlete should consume food or nutrients simply because in doing physical activity requires energy obtained from the burning of food Or nutrients. The nutrients obtained from the food we consume are explained by Suryadi (2006: 5) that "nutrients include carbohydrates (carbohydrates), fats, proteins, minerals, vitamins, and water.

3. The Role of Nutrition In Exercise and Match

For athletes who are in a special training period or regional training camp to prepare before or during the game need to get special attention in terms of nutritional needs level. According to Clark (2001: 94) "four functions of food before practice and match:

A. To help prevent hypoglycemia (low sugar levels), with symptoms of headaches, improper tiredness, blurred vision and can not concentrate.

B. Helps your stomach to be good, absorb sap belly, and eliminate hunger.

C. Filling muscle fuel, with food eaten far enough upfront to be digested and stored as glycogen.

D. To calm the mind with the knowledge that your body is fueled properly.

It should be noted by athletes who are undergoing training to keep the balance of fluid coming out of perspiration while practicing. The exhausted liquid should be replaced by drinking water as suggested by Djoko (2007: 107) "every 10-15 minutes drink 200-300 ml (1-2 cups), in hot weather the fluid requirement is increased 3 times from the recommended" . So for athletes at the time of exercise should drink water to restore the fluid that comes out, drinking water can also restore the freshness of the body.

Nourishment during the game according to Kasturi (2002: 20) "there are four main periods during the game period:

A. Initial season phase: needs depend on sex body size, intensity and duration of exercise.

B. Weight training phase: practice keeping double intensity.

C. Peak phase: 2-3 weeks before the competition. This is a very difficult phase, calorie intake should be adjusted based on the exercise produced.

ISBN 978-616-278-391-3

D. Competition phase

1) Pre competition: Last meal should be 4-5 hours before the game to keep blood sugar.

2) During the glucose plymer competition can be used as a source of energy, during the regular fluid brake.

3) Post competition: start recovery as soon as possible.

In the sports nutrition manual (Depdiknas, 2000: 3-5), "food menu is guided by 4 healthy 5 perfect fit with the taste and pattern of food of the people of Indonesia is a menu consisting of:

1) Staple food as a source of carbon hydrate.

1. Side dishes as protein and fat.

2. Vegetables as a source of vitamins and minerals.

3. Fruits as a source of vitamins and fats.

4. Milk, egg yolks or other substitutes as an additional source of high value protein.

4. Energy Sufficiency

The energy is needed for basal metabolism (BMR). Basal metabolism is a state of body metabolism in a state of complete physical and mental rest, one way to calculate a person's energy needs by estimating the value of BMR obtained by using the formula.

Table 1. The value of BMR (Basal Metabolism Rate)

Age	BMR (cal/day)	
	Male	Female
3-10	22,7 B + 495	22,5 B + 499
10-18	17,5 B + 651	12,5 B + 746
18-30	15,3 B + 679	14,7 B + 496
>30	11,6 B + 879	87 B + 89

Description: B = Weight

Source: FAO / WHO / UNO, 1985 cited from the Booklet of Athlete Regulation of MOH RI.

Table.2. Energy Requirements For Various Sports Branch (cal / kg BB / 24)

Gender	Light exercise	Moderate exercise	Heavy sports	Extremely heavy sports
Man	42	46	54	62
Woman	36	40	47	55

Source: Modification based on data from FHO / WHO 1974 from sports book of DepPenNas 2002

A. Calculation of Physical Activity

How to calculate energy requirement for physical activity is by using factor of multiples BMR. The heavier the activity the higher the factor, as listed in the table below.

Table 4. Energy requirements for physical activity

ISBN 978-616-278-391-3

Type of activity	Estimated energy reduction (multiples of BMR)	
	Man	Woman
1. Sleep	1,0	1,0
2.Activity in work		
- Light, easy	1,7	1,7
- Medium	2,7	2,2
- Weight	3,8	2,8
3.Sports activities	6,0	6,0
4.Relaxing moments	1,4	1,4

Source: modification based on data from FHO / WHO / 1974 from sports nutrition book DEPPENNAS

B. Type of activity

To facilitate in analyzing the types of activities required then by Kunkun (1996: 35) categorized the activities to be:

1) Sleep (0.9-10 kcal)
2) Very light (1,4-1,5 kcal)

Reading, writing, watching tv or cinema, listening to radio, sewing, playing cards, typing, various types of office work and other work done with little sitting or hand gestures.

RESEARCH METHODOLOGY

The datas are colleted by using "descriptive method". With this method the main issue of the state of nutritional status of Petanque athletes of North Sumatra can be expressed in a systematic and directed. Because the subject matter has been more focused and focused, that is just want to know one aspect of the state of nutrition status Petanque athletes of North Sumatra, then this method is more precise and known as Narrow Survey is a narrow and simple. The characteristic feature of this method is that more people try / sample use the better the results, but with smaller trial people within certain limits, the results are quite significant. Therefore this method is appropriate for the above problems.

1. Research Instruments

Instrument of research conducted is to use way of assessment of nutritional status of athletes based on anthropometric measurement of Body Mass Index (BMI) or Body Mass Index (BMI). This method is used to determine the nutritional status of adults aged 18 years or older. The way of assessment is to use the following formulation:

$$Body\ mass\ index = \frac{\text{Weight}}{\text{Height (M)2}}$$ (Djoko, 73:2006)

Furthermore, the calculation result of Body Mass Index is consulted with the following table:

Nutritional status	Man	Woman
Thin	< 20,1	<18,7
Normal	20,1 – 25,00	18,7 – 23,8
Obese	>30	>28,6

ISBN 978-616-278-391-3

RESEARCH RESULT AND DISCUSSION

From the data obtained through the results of research, then processed by using the assessment of nutritional status based on anthropometry measurements Body Mass Index (BMI), then obtained the following results

Table 6. Measurement Result of Body Mass Index (BMI) Petanque Athletes Sumatera Utara

From table 6 above it can be explained that to find an assessment of nutritional status of Petanque athletes of North Sumatra, done by calculating Body Mass Index (BMI). Where to know Weight in kilograms, Height in meters, and this measurement can only be used for adults (age 18 years and over).

Based on the result of the research, it is found that the overall nutritional status of Petanque athletes in the normal category is 21.92. This value has been converted to a nutritional status table where the values of 20.1 - 25.0 are in the normal category. While individually obtained the result of as much as 93 percent (14 people) Petanque athletes of North Sumatra have normal nutritional status. Only 7 percent (1 person) are in the category of obesity.

By looking at the table above, then every North Petanque athlete can be known how much the number of caloric values by adjusting the athletic numbers that they do. The following will describe the daily caloric needs of each Petanque athlete of North Sumatra.

Table . List of Petanque Athletes Sumut and Result of Measurement of Body Mass Index (BMI) Petanque Athletes of North Sumatra

No	Nama	BB	TB	Umur	TB	IMT	Status	rata-rata TB	rata-rata IMT
1	M.Bayu Pebrian	54	1,64	18 tahun	2,69	20,08	Normal	2,69	20,08
2	Satria	80	1,86	19 tahun	3,46	23,12	Normal	3,46	23,12
3	Yoel Ganda Srg	55	1,59	19 tahun	2,53	21,76	Normal	2,53	21,76
4	Erdi Anugrah	56	1,61	19 tahun	2,59	21,6	Normal	2,59	21,6
5	Pumareka Tarigan	57	1,66	23 tahun	2,76	20,69	Normal	2,76	20,69
6	Nosanta	108	1,88	20 tahun	3,53	30,56	obese	3,53	30,56
7	Andriadi Putra S	95	1,85	21 tahun	3,42	27,76	Normal	3,42	27,76
8	Johannes Damanik	52	1,65	19 tahun	2,72	19,1	Normal	2,72	19,1
9	Yuyun Danati M	56	1,64	21 tahun	2,69	20,82	Normal	2,69	20,82
10	Delvina Theresia	54	1,58	20 tahun	2,5	21,63	Normal	2,5	21,63
11	Audio Lumban Gaol	58	1,65	21 tahun	2,72	21,3	Normal	2,72	21,3
12	Loed Afandi	59	1,69	20 tahun	2,86	20,66	Normal	2,86	20,66
13	Suanetral	52	1,58	19 tahun	2,5	20,83	Normal	2,5	20,83
14	Rebekka S	46	1,58	21 tahun	2,5	18,43	Normal	2,5	18,43
15	M.Ridwan	55	1,64	23 tahun	2,69	20,45	Normal	2,69	20,45
				Jumlah	**42,16**	**328,79**	**Normal**	**2,810666667**	**21,9193333**

ISBN 978-616-278-391-3

Thus every Petanque athlete of North Sumatera absolutely need sufficient nutrient intake, considering the need of calorie which must be issued very big that is 4600 s / d 6000 kcal. If the caloric needs obtained from the intake of small nutrients, then the calorie needs to do the exercise of athletic branch numbers is not sufficient. Over time the athlete will experience malnutrition.

Although the results of this study indicate nutritional status in normal circumstances, the manager of Petanque North Sumatra should also pay more attention to the daily athletes menu. Because based on the questionnaire filled by the sample, the food menu they consume is less varied. This means that the food menu is not variegated, so it can reduce their will to eat the food.

CONCLUSION

Based on the results of research conducted can be concluded that the nutritional status of Petanque athletes of North Sumatra is in the normal category.

SUGGESTION

1. We recommend that the Petanque athletes food menu of North Sumatra is maintained and if necessary more improved, considering the number of calories needed to run a large enough exercise activity.
2. Better Petanque Northut athlete rest pattern more attention, to anticipate athletes who are late to sleep at night.
3. Required family support (parents) to help supply extra food athletes.
4. Food menu given to Petanque Sumut athletes should be monitored by nutritionists.

BIBLIOGRAPHY

Achmad Djaeni Sedia Oetama. Nutrition Sciences for Professions and Students. Jakarta: Dian Rakyat, 1991.
Asmuni. Human and Sports. Bandung:
Depdiknas, Learning Physical Education in Elementary School, Jakarta, 2005.
Muhibin Shah. Psychology Learning.Jakarta: Rajawali Pers, 2007.
Santrock W. Jhon, Educational Psychology, Jakarta: Kencana, 2007.
Sudjana, Statistical Method, Bandung: Tarsito, 2002.

ISBN 978-616-278-391-3

ACPES 2017
The 3rd International Conference on Physical Education, Health and Sport
ASEAN Council of Physical Education and Sport
"Best Practice for ASEAN+ Community: Enhancing Physical Activity, Physical Education, Sport, Health and Recreation"
2 - 5 September 2017
Saen Palm Convention Hall, Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom,Thailand
Hosted by: Kasetsart University

ACPES27-Full

THE DEVELOPMENT OF FUTSAL LEARNING MODEL ASSURE-BASED DESIGN ON STUDENTS OF POK FKIP UNS

Rumi Iqbal Doewes,*[1] Slamet Riyadi [2]

[1] *Teacher Training and Education Faculty Sebelas Maret University Surakarta Indonesia*

[2] *Teacher Training and Education Faculty Sebelas Maret University Teacher Training and Education Faculty Sebelas Maret University*

Abstract

The research purposes were prepared the ASSURE learning model, tested the development product, and determined the effectiveness of ASSURE learning model to improve futsal basic skills and techniques. This research was used development research methods. The first stage is needs analysis used interviews method determined the futsal learning technique problems. The second stage is making products. Further evaluation products by academics and practitioners futsal, the average value is 72.38% was shown the design products can be tried out in the next stage. Product testing on a small group as many as 12 students and a large group as many as 54 students used the questionnaire instrument. Test results for small group is 83.19% and for large group is 84.5%. The third stage was called the effectiveness test of the product by comparing two treatment group used a pretest-posttest design. Differential value of ball feeling test in the experimental group is 54.098%, and control group is 46.269%. Differential value of dribbling test in the experimental group is 31.858%, and control group is 29.032%. Differential value of passing test in the experimental group is 98.324%, and control group is 95%. Differential value of shooting test in the experimental group is 73.810%, and control group is 68.724%. So can be concluded that the product is effective to improve mastery of basic skills and techniques of futsal on POK FKIP UNS students.

Your article must be written in English and shall contain 2 to 4 pages (including figures).

1. Introduction

Learning process of futsal courses at POK FKIP UNS, lecturer is not yet optimal in performing teaching functions for students. The dominant futsal learning approach carried out by drill approach. Lecturers did not yet optimal apply learning model based on scientific approach. The patterns and models of futsal learning need to make students have a more active role. ASSURE-based futsal Learning is an alternative learning model can be done to maximize the role of students in learning process. Structured module development in according to the ASSURE model with

Communicative Language Teaching (CLT) as a base in designing activity module [1]. The learning system design model was developed to create an effective and efficient learning activities. The steps of ASSURE design learning model through several stages such as: (1) analyze the leaners' characteristic, (2) state objective, (3) select method, media and leaning materials, (4) utilizematerials, (5) require learner participation, and (6) evaluation and revise. Learning futsal based ASSURE design is futsal learning model with new conception designed in accordance with need and development for students.

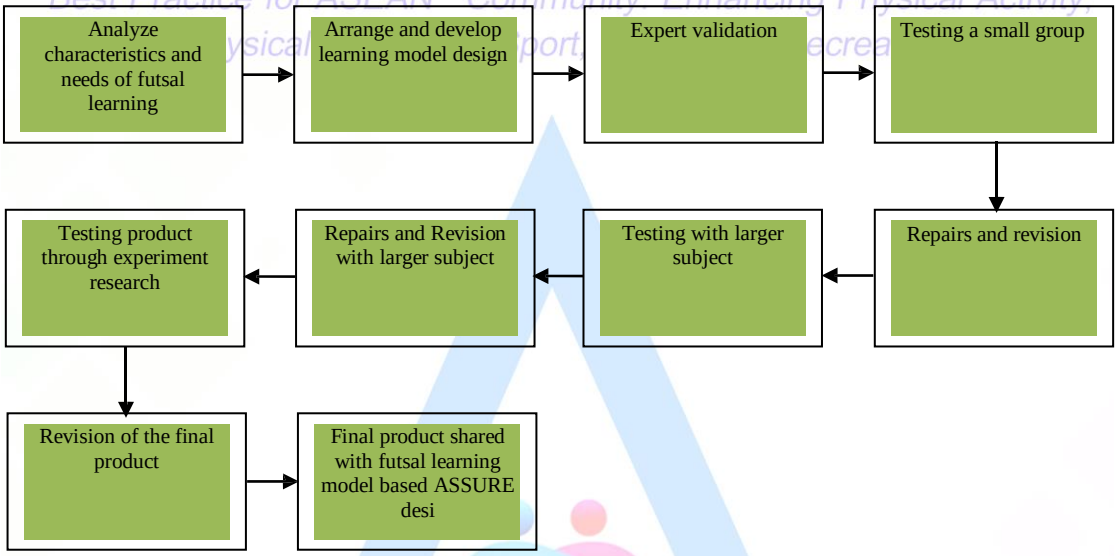


Fig. 1 Research Steps Illustration

ISBN 978-616-278-391-3

3. Results and Discussion

Table 1. Overview results

No	Component	Invention
1	**Introduction Stage** Interview with futsal coach at POK FKIP UNS on basic futsal technique mastery of POK FKIP UNS students (n=2) with 4 points questions.	Mastery of futsal technique is not good, at POK FKIP UNS there has not been learning program specifically to teach futsal technique.
2	**Developmental Stage**	
	a. The evaluation results of futsal experts (n=3) with the instrument number of 20 ball feeling questions, 15 dribbling questions, 20 passing questions, 20 shooting questions.	a. The evaluation results of third futsal experts were obtained the percentage of 72.38 %, so that learning model can tried out. b. Input from the futsal experts, learning model design still required to be added picturesproducts thatare clearer and learning program design must be adjusted with the theory of learning and techniques of futsal game.
	b. Small group testing of (n=12) with the instrument number of 60 questions.	The testing result of small group was obtained the percentage of 83.19 %, so that learning model can be continued to large group testing stage.
	c. Large group testing (n=54) with the instrument number of 60 questions.	From the large group testing result was obtained the percentage of 84.5 %, so that learning model can be continued to stage of product effectiveness test.
3	**Products effectiveness test**	

2-5 September 2017
Saen Palm Conventiona Hall
Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom, Thailand
ISBN 978-616-278-391-3

	Different value	The different value on pretest and posttest value of products effectiveness testing: 1. Experimental group (n=6) a. Ball feeling technique 68.4% b. Dribbling technique 77.5% c. Passing technique 50.4% d. Shooting technique 59.3% 2. Control group (n=6) a. Ball feeling technique 64.2% b. Dribbling technique 75.8% c. Passing technique 47.1% d. Shooting technique 57.5%

Based on the table 1, at the introduction stage was conducted needs analysis by interviews. Needs analysis is very important because can be find problem to solved. Need analysis is collection of early information against difference conditions in the field and conditions intended, for problem solving [3]. Interview result is futsal technique not yet well in POK FKIP UNS and didn't special learning programs about the futsal technique. Development stage was conducted evaluation of futsal expert. Futsal expert result was obtained the percentage of 72.38% so that learning model can tried out with expert's recommendation. The academic advice including of (1) a kind of learning it should be noted that the learning purpose is not ambiguous; (2) the implementation procedures of futsal techniques learning with a ASSURE model more clarified; (3) the preparation of learning model need to adapt to the facilities and infrastructure in the field. Advice from the futsal practitioner including of (1) learning model made from the easy stage and increased to the difficult stage; (2) learning physical made leading to learning technique; (3) learning must be adjusted to the learning condition. Beside the experts evaluation at the development stage, also conducted product testing on small and large group. Try out stage is the stage to know students' opinion related to the product of ASSURE learning model development. Information in the form of students' opinion obtained using questionnaires instruments with 60 questions. Small group testing was used sample of 12 students and large group used 54 students. The testing results is 83.19 % in small groups and 84.5 % in large group. This means that the product of learning model development acceptable for POK FKIP UNS students and ready done their effectiveness testing. Effectiveness testing stage objectives was determined the level of product effectiveness for formulated be a final product result, and further usage in the learning. Experimental design was used pretest and posttest design. The experimental design was used one treatment (pretest-posttest control group design), conducted by means of the two groups given pretest to measure the initial conditions, then in the experiment given treatment, while in the control group will not give treatment. Based on a comparison this percentage, so an increase in test results to sample group shown that the sample group more effective than the control group.

ISBN 978-616-278-391-3

Table 2. Data of Pre-test and Post-test result

Group	Testing	Test result		Different value	T_{count}	T_{table}	Conclusions
		Pre-test	Post-test				
Experiment group	Ball feeling	69	98	29	12.7583	2,571	Significance
	Dribbling	124	160	36	12,9455	2,571	Significance
	Passing	180	355	175	13,3243	2,571	Significance
	Shooting	245	410	165	12,9437	2,571	Significance
Control group	Ball feeling	61	94	33	12,8778	2,571	Significance
	Dribbling	113	149	36	12,4708	2,571	Significance
	Passing	160	340	180	13,2939	2,571	Significance
	Shooting	210	365	155	13,2993	2,571	Significance

Table 2 was explained the significance test of product of ASSURE learning model development. Based on the table 2, for every group is t_{count} larger than $t_{table,}$ so can be concluded that data significance.

4. Conclusions

Based on research result and data analysis, research conclusions is product of ASSURE learning model development can be alternative learning model to maximize the role of students in the mastery of futsal basic skills.

References

[1] Bukhari, N.I.A., Omar, S., Abas, A.I.C., Shawal, B.R.M., Ibrahim, W.S.A.A.W., Hassan, A.A., Nawi, N.H.M. 2017. Exploring "Speak-O-Rama" as a Public Speaking Module: A Pilot Study in an Islamic Integrated Primary School. *International Journal of Applied Linguistics & English Literature*. Vol. 6 No. 2; March 2017: 249-257.

[2] Gall, Meredith D., Gall Joyce P., & Borg Walter R., *Educational Research.* United States of America: Person Education, Inc., 2007.

[3] Zach, T. 2011. The Effect of R&D Inputs and Outputs on the Relation between the Uncertainty of Future Operating Performance and R&D Expenditures. *Journal of Accounting, Auditing and Finance*. January 2011.

[4] Adams, N. E. Bloom's Taxonomy Of Cognitive Learning Objectives. *J Med Lib Assoc* 103(3) July 2015. DOI: http://dx.doi.org/10.3163/1536-5050.103.3.010.

[5] Atwi M. Suparman. 2014. *Desain Intruksional Modern.* Jakarta: Erlangga.

[6] Bai, Y., and Chi, A. The Feasibility of the Develop of Futsal in Primary and Middle Schools.

[7] *2016 2nd International Conference on Modern Education and Social Science* (MESS 2016). ISBN: 978-1-60595-346-5: 771-775.

[8] Beato, M., Coratella, G., Schena, F., Hulton, A. T. 2017. Evaluation Of The External And Internal Workload In Female Futsal Players. *Biol. Sport 2017*; 34: 227-231.

[9] Benny A. Pribadi. 2011. *Model ASSURE untuk Mendesain Pembelajaran Sukses*. Jakarta: Dian Rakyat.

[10] _____. 2009. *Model Desain Sistem Pembelajaran*. Jakarta: Dian Rakyat.

[11] Bukhari, N.I.A., Omar, S., Abas, A.I.C., Shawal, B.R.M., Ibrahim, W.S.A.A.W., Hassan,

[12] A.A., Nawi, N.H.M. 2017. Exploring "Speak-O-Rama" as a Public Speaking Module: A Pilot Study in an Islamic Integrated Primary School. *International Journal of Applied Linguistics & English Literature*. ISSN 2200-3592 (Print), ISSN 2200-3452 (Online). Vol. 6 No. 2; March 2017: 249-257.

[13] Costa, L. C. A., Nascimento, J. V., and Vieira, L. F. 2016. Teaching Invasive Team Sports In The School Environment: From Theory To Practice From The Perspective Of A Hybrid Model. *J. Phys. Educ.* v. 27, e2709, 2016. DOI: 10.4025/jphyseduc.v27i1.2709: 1-14.

[14] Flôres, F. S., Menezes, K. M., and Katzer, J. I. Influences Of Gender On Attention And Learning Of Motor Skills. *J. Phys. Educ*, v. 27, e2706, 2016. DOI: 10.4025/jphyseduc.v27i1.2706: 1-9.

[15] Gall, Meredith D., Gall Joyce P., & Borg Walter R., *Educational Research.* United States of America: Person Education, Inc., 2007.

[16] Hidayatullah, M. F. 2006. *Mendidik Anak Dengan Bermain*. UNS Press, Surakarta.

[17] Hermans, V., and Engler, R. 2011. *Futsal: Technique Tactics Training.* Meyer and Meyer Sport, UK.

[18] Jakiwa, J., Geok, S. K., Fauzee, M. S. O. 2015. Impact of Self-Talk among University Futsal Player in University of Putra Malaysia: A Qualitative Approach. *South-East Asian Journal for Youth, Sports & Health Education*, 1(1) April 2015. ISSN 2407-7348: 1-8.

[19] Kacem, N., Guemri, A., Naffeti, C., and Elloumi, A. 2016. Mechanism of Social Reproduction of the Culture Futsal: Modelling of the Universals of Futsal and Sense of the Rules of the Game: Analysis of Shooting at the European Cup Matches. *Physical Education*, 2016, 6, 59-66.

[20] Karavelioglu, M. B., Harmanci, H., Kaya, M., and Erol, M. 2016. Effects of Plyometric Training on Anaerobic Capacity and Motor Skills in Female Futsal Players. *Anthropologist*, 23(30: 355-360.

[21] Kartal, R. Comparison of Speed, Agility, Anaerobic Strength and Anthropometric Characteristics in Male Football and Futsal Players. *Journal of Education and Training Studies*. Vol. 4, No. 7; July 2016. ISSN 2324-805X E-ISSN 2324-8068: 47-53.

[22] Keshvari, B., and Senner, V. 2015. Comparison Of Shoe-Surface Tractions On Various Playing Surfaces In Futsal. *Procedia Engineering* 112 (2015) 267-272.

[23] Kocić, M., Joksimović, A., and Stevanović, M. 2016. Differences In Explosive Strength Of Legs Between Football And Futsal Players. *Physical Education and Sport* Vol. 14, No 2, 2016, pp. 269-278.

[24] Li, J., Schiller, D., Schoenbaum, G., Phelps, E. A., and Daw, N. D. 2012. Differential Roles

Of Human Striatum And Amygdala In Associative Learning. *Nat Neurosci*. ; 14(10): 1250–1252. doi:10.1038/nn.2904.

[25] Ridderinkhof, Richard K., and Brass, M. 2015. How Kinesthetic Motor Imagery Works: A Predictive-Processing Theory Of Visualization In Sports And Motor Expertise. *Journal of Physiology* - Paris 109 (2015) 53–63.

[26] Rosa, J.P.O.D., and Vital, R.A.D. The Use of Facebook in Argumentative Writing: Towards an Instructional Design Model. *AsTEN Journal of Teacher Education* 2016. Volume 1, Issue No. 2: 39-58.

[27] Sarmento, H., Bradley, P. S., Anguera, M. T., Campanico, J. 2015. Quantifying the Offensive Sequences that Result in Goals in Elite Futsal Matches. *Journal of Sports Sciences*. July 2015. DOI: 10.1080/02640414.2015.1066024.

[28] Sharon E. Smaldino, Deborah L. Lowther, & James D. Russell. 2014. *Instructional Technology & Media For Learning terjemahan.* Jakarta: Kencana Prenadamedia Group.

[29] Sezer, B., Yilmaz, F.G.K., Yilmaz, R. 2013. Integrating Technology Into Classroom: The Learner-Centered Instructional Design. *International Journal on New Trends in Education and Their Implications*. October 2013 Volume: 4 Issue: 4 Article: 12 ISSN 1309-6249: 134-144.

[30] Snow, Nicholas J., Mang, Cameron S., Roig, M., McDonnell, Michelle N., Campbell, Kristin L., and Boyd, Lara A. 2016. The Effect of an Acute Bout of Moderate-Intensity Aerobic Exercise on Motor Learning of a Continuous Tracking Task. *Journal.pone*.0150039 (2016): 1-16.

[31] Sterdt, E., Liersch, S., and Walter, U. 2013. Correlates Of Physical Activity Of Children And Adolescents: A Systematic Review Of Reviews. *Health Education Journal*, 0(0) 1–18.

[32] Sugiyono. *Metode Penelitian Pendidikan: Pendekatan Kuantitatif, Kualitatif dan R & D.* Bandung: Alfabet, 2015.

[33] Jay D Goldstein, &Seppo E Iso-Ahola.(2006). *Promotion sportmanship in youth sports* (Journal of Physical Education, Recreation & Dance)

[34] Vieira, L. H. P., Doğramaci, S. N., Barbieri, R. A., Moura, F. A., Andrade, V. L., Cesar, G. M., and Santiago, P. R. P. 2016. Preliminary Results On Organization On The Court, Physical And Technical Performance Of Brazilian Professional Futsal Players: Comparison Between Friendly Pre-Season And Official Match. *Motriz, Rio Claro*, v.22 n.2, p. 80-92, Apr./June 2016.

[35] Zach, T. 2011. The Effect of R&D Inputs and Outputs on the Relation between the Uncertainty of Future Operating Performance and R&D Expenditures. *Journal of Accounting, Auditing and Finance*. January 2011. DOI: 10.1177/0148558X11400583: 1-43.

ISBN 978-616-278-391-3

ACPES 2017
The 3rd International Conference on Physical Education, Health and Sport
ASEAN Council of Physical Education and Sport
"Best Practice for ASEAN+ Community: Enhancing Physical Activity, Physical Education, Sport, Health and Recreation"
2 - 5 September 2017
Saen Palm Convention Hall, Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom,Thailand
Hosted by: Kasetsart University

ACPES29-Full

RESPONSES OF BLOOD PRESSURE, RESTING HEART RATE, AND BODY WEIGHT TO SHORT-TERM MIXED IMPACT AEROBIC DANCE IN YOUNG ADULT

Mohammad Arif Ali,*[1] Sugiarto,[1] Yu-Shiuan Chen,[2] Yun-Zhen Chang,[3]

[1] Department of Sports Sciences, Faculty of Sports Sciences, Universitas Negeri Semarang (UNNES), F1 Builing 1st Floor–Sekaran Campus–Gunungpati-Semarang, 50229, Indonesia

[2] New Taipei City Hospital Burn Rehabilitation & Post-Acute Care Center, No. 198, Yingshi Rd., Banqiao Dist, New Taipei City, 220, Taiwan (R.O.C)

[3] Yu Da University of Science and Technology, No. 168, Hsuehfu Rd., Tanwen Village, Chaochiao Township, Miaoli County, 361, Taiwan (R.O.C)

Abstract

Background: Previous studies showed that long-term aerobic dance program for 12 weeks (36 sessions) has beneficial effects on blood pressure, (Cardoso Jr, C. G. Et al, 2010; Guidarini et al, 2013), also when it is combined with dietary plan, (Petrofsky, J. Et al, 2008). In another hand, its positive influences on body compositions are well documented, (Jaywant, P. J., 2013; Pantelic, S. Et al, 2013; Nawawi, U., 2014). However, there are only few studies about effects of short-term aerobic dance program particularly on systemic blood pressure, resting heart rate, and body weight. **Methods**: This experimental research, quasi-design, one-group pre-post test. The purpose of this study was to investigate the responses of blood pressure, resting heart rate, and body weight to short-term mixed impact aerobic dance in fourteen young adult (male-female, 18-21 y.o). Data such as systolic and diastolic blood pressure (mm Hg), resting heart rate (bpm), and body weight (Kg) were taken twice as pre-test data and post-test data, (2 days before-after the program was given). Program with intensity about 60% to 80% of maximum heart rate, duration 30-45 minutes, 3 times in week for 2 weeks was given as a treatment. **Results**: Data showed that systolic and diastolic blood pressure (mm Hg), resting heart rate (bpm) was decreased respectively as $P < .05$, but not for body weight (Kg) as $P > .05$. It was might be due to the duration of exercise intervention was not enough long. **Conclusion**: Blood pressure and resting heart rate have responded positively to short-term mixed impact aerobic dance, but its effect on body weight seems does not appear yet. Therefore, authors state that the great benefits of exercise are obtained by proper formula of exercise program.

Keywords: cardiovascular health, aerobic dance, short-term exercise program

1. Introduction

Hypertension is identified as one of the most common precursors of coronary artery disease, hypertension is usually asymptomatic, and **prevention is the most efficient way to fight it and avoid the high social cost of its treatment and complications**. Hypertension also one of risk factors of cardiovascular disease which leads diastolic heart failure, it occurs when the heart is unable to relax and fill with blood. Moreover, systolic heart failure caused by myocardial infarction, happen when heart is unable to contract and eject the blood normally. Hypertension in adulthood could be predicted from an increase in arterial blood pressure in you people (cardiovascular disease arises during adulthood), (Malasky, B., 2008; Rodrigues et al, 2013).

Hypertension is responsible for at least 45% of deaths due to heart disease (ischemic heart disease mortality), and 51% of deaths due to stroke, (World Health Organization, 2013). Further, prevalence of hypertension in Indonesia has been identified as highest (in adults aged 25+) among developing countries (Bangladesh, India, Nepal, Thailand and Myanmar). About 76 percent of hypertension cases in Indonesia are still undetected, as many Indonesian rarely have their blood pressure checked, (Bindels, J., 2013). Indonesia Ministry of Health stated that hypertension is common condition which easily can be found at health unit center, this is a health problem with high prevalence (25.8%) according to Riskesdas 2013. Besides, control of hypertension has not been adequate although effective medicine/drugs which have aim to lower blood pressure are provided.

Hypertension is associated with lower activities of daily living which is referred to daily care activities within the place of residence, in the outdoor environments, or both, (Uddin, Md. J. et al, 2014). The significant risk factors are elderly, male, education status, obesity, abdominal obesity. Moreover, Kamso's study explain that monounsaturated fatty acid, saturated fatty acid, and sodium intake, plasma total cholesterol level, ratio of total cholesterol to HDL cholesterol and "sport index" as determinants for blood pressure in the normal weight elderly individuals, while potassium intake, calcium intake and BMI were determinants for blood pressure in the overweight elderly individuals, (Kamso, S. et al, 2007). Therefore, **prevention programs and control of non-communicable disease and its risk factors is necessary to decrease the prevalence of hypertension in Indonesia**, (Rahajeng, E. & Tuminah, S., 2009).

Interestingly, in line with hypertension as silent killer of cardiovascular disease, heart rate is related with cardiovascular health. Elevated heart rate is associated with elevated peripheral blood pressure, increased risk for hypertension, and, among hypertensive patients, increased risk for cardiovascular disease, (Reule and Drawz, 2012). Moreover, individual with resting heart rate more than 75 (bpm) has high risk of sudden death, (Jouven, X., 2005). Since resting heart rate is correlated with levels of fitness, individuals with low levels of physical fitness have higher rate of cardiovascular events and a higher death rate, (Myers, J., 2003).

2. Experimental Work

This experimental research, quasi-design, one-group pre-post test. Fourteen young adult (male-female, 18-21 y.o). Data such as systolic and diastolic blood pressure (mm Hg), resting heart rate (bpm), and body weight (Kg) were taken twice as pre-test data and post-test data, (2 days before-after the program was given). All experimental data will be expressed as means ± standard errors of the mean (SEMs). To determine whether there is an effect of classic mix impact aerobic dance exercise, paired t-Test will be used. A level of $P < .05$ was set for significance for all tests.

Aerobic Dance Exercise as one of cardiorespiratory exercise types is known focus on getting the heart rate up for the duration of the class. The hi/lo aerobics or mixed impact aerobic dance was chosen as structure of the training sessions which is characterized by the combination both high and low impact moves where the goal is to get participants up and keep them moving. It was done for six times in total. Each training session lasted for a period of 45 minutes, with intensity 60% to 80% of the maximum heart rate. All of the parts of the training session are accompanied by music of an appropriate tempo. Music influences the heart rate, and music is able to increasing exercise performance, (Manjunatha, S. N. et al, 2014). Moreover, music is required during performing activities for powerful muscles contractions, (Jarraya, M. et al, 2012). The pyramid also called movement reduction will be used as class method. Note: During exercise, intensity will be observed by Borg Scale, it is according intervention prevention during treatment given.

Blood Pressure (mm Hg) and Resting Heart Rate (bpm) were measured using an OMRON *Automatic Blood Pressure Monitor*, MODEL HEM-7111. Preparation, the examination room was adjusted quiet, with a comfortable ambient temperature 18º C - 22º C. Subjects were asked to seated for at least 10 min before the actual measurement was taken. Ideally, blood pressure should not be measured if the patient has engaged in recent physical activity, used tobacco, ingested caffeine, or eaten within the past 30 minutes. Measurement, correct positioning of the patient is essential for accurate measurement. The patient's back and legs should be supported, with the legs uncrossed and the feet resting on a firm surface. The arm in which blood pressure will be measured should be bare to the shoulder, and the garment sleeve, if raised, should be loose, so that it does not interfere with blood flow or with proper positioning of the blood-pressure cuff. The arm should be supported and level with the heart. The cuff should be placed on a bare arm, approximately 2 cm above the elbow crease, with the midline of the bladder directly over the brachial artery. It should fit snugly but should still allow for two fingers to slide under the cuff. The manometer should be positioned at the health care practitioner's eye level. Twice measurements were taken with a 5 min interval, and the average value was used, (Kamso, S. et al, 2007; Williams, J.S. et al, 2009; AHA, 2012). While **Body Weight (Kg)** was measured using a CAMRY *Glass Electronic Personal Scale*, MODEL: EB9003. There was not food control during treatment days.

3. Results and Discussion

Both systolic and diastolic blood pressures (mm Hg) have positively responded to short-term mixed impact aerobic dance, (Figure 1). Systolic blood pressure was decreased from 119 to 112 and diastolic from 67 to 63. It shows that 6 sessions of aerobic dance exercise already capable to affecting physiological system of our body. This finding supports the statement from Cardoso Jr, C. G. in 2010 that aerobic training is able to decrease blood pressure in hypertensive individuals, (Cardoso Jr, C. G. in 2010).

The program of short-term aerobic dance in this study is in line with study which conducted by Fagard, R. H. in 2001. He states that training program at intensity of about 40-50% of MHR, 30-60 minutes per session with frequency 3-5 times per week appears to be effective with regard to blood pressure reduction. Moreover, according to statement of Hypertension Diagnosis and Treatment Guideline (HDTG), aerobic physical activity 3 to 4 sessions per week, with moderate-to-vigorous intensity for an average of 40 minutes is advised to be engaged for adults.

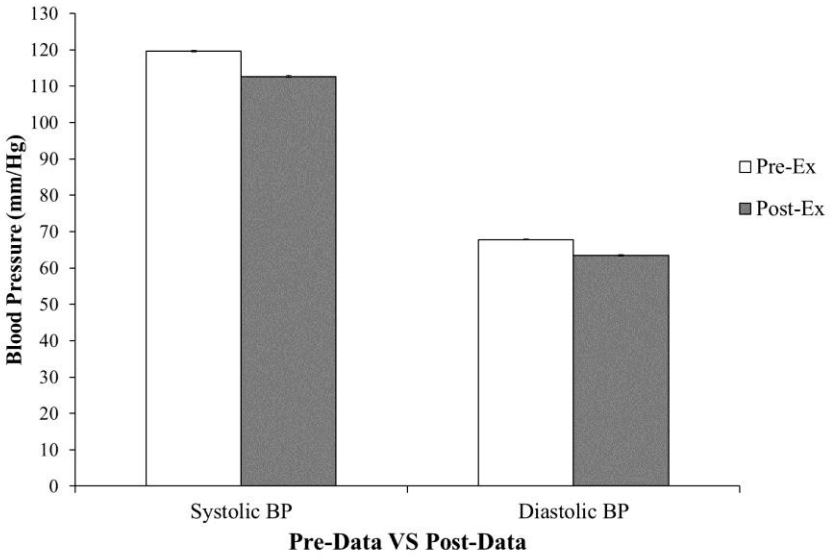


Figure 1. Response of Blood Pressure (mm Hg) to Short-Term Mixed Impact Aerobic Dance

Besides aerobic training, hypertensive patients are recommended to take ballroom dance, it can contribute to a better control of blood pressure and it could be considered as a cardiac rehabilitation exercise, (Guidarini et al, 2013). Additionally, the combination between an hour aerobic dance video used each day for a total 10 days with a dietary plan is able to loss 2.1 ± 0.61 kg of body weight; 3.0 ± 1.1% of body fat after treatment, and blood pressure, heart rate decreased significantly at the 7 day, (Petrofsky, J. Et al, 2008).

Normal adult blood pressure is defined as a systolic blood pressure of 120 mm Hg and a diastolic blood pressure of 80 mm Hg. However, the cardiovascular benefits of normal blood pressure extend to lower systolic (105 mm Hg) and lower diastolic blood pressure levels (60 mm Hg). Pre-hypertensive

individuals (systolic BP 120–139 mm Hg or diastolic BP 80–89 mm Hg) require health-promoting lifestyle modifications to prevent the progressive rise in blood pressure and CVD, (Chobanian et al, 2003). Hypertension is defined as a systolic blood pressure equal to or above 140 mm Hg and/or diastolic blood pressure equal to or above 90 mm Hg. Normal levels of both systolic and diastolic blood pressure are particularly important for the efficient function of vital organs such as the heart, brain and kidneys and for overall health and wellbeing, (World Health Organization, 2013).

The short-term mixed impact aerobic dance is able to decrease the resting heart rate about 5 beats, from 73 to 68 beats per minute, (Figure 2). This is such a good condition for any individual since higher resting heart rate > 75 (bpm) is related with sudden death, and low level of fitness, (Myers, J., 2003; Jouven, X., 2005).

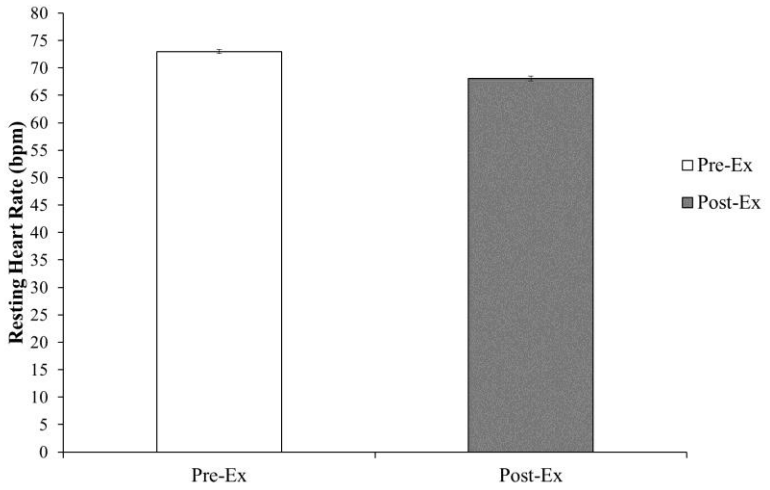


Figure 2. Response of Resting Heart Rate (bpm) to Short-Term Mixed Impact Aerobic Dance

Resting heart rate (RHR) is an accessible index of sympathetic activity, and it is positively associated with blood pressure, (Dong, B. et al, 2015). Increased RHR is associated with the prevalence of the metabolic syndrome (MetS) and cardiovascular risk factors in a sample of apparently healthy individuals and those with cardiovascular risk factors in both sexes, (Rogowski, O. et al, 2009; Farah, B. Q. et al, 2015). Moreover, resting heart rate, a low tech and inexpensive measure of autonomic tone, independently predicts myocardial infarction or coronary death, but not stroke, in women, (Hsia, J. et al, 2009).

2-5 September 2017
Saen Palm Conventiona Hall
Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom, Thailand
ISBN 978-616-278-391-3

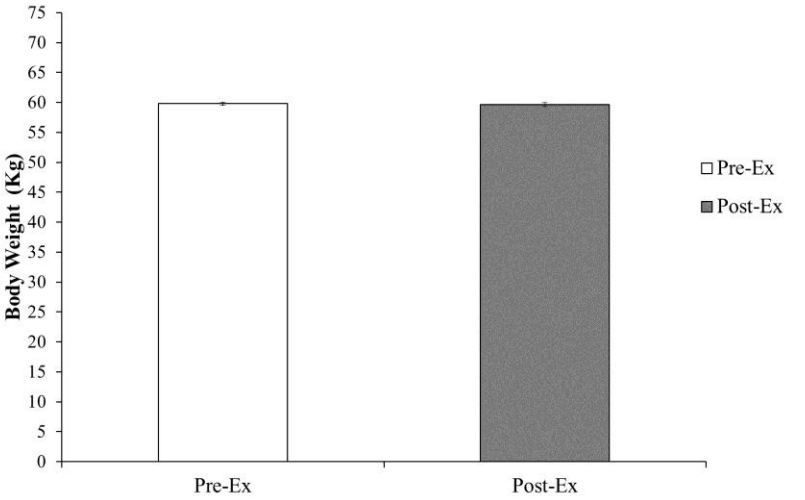


Figure 3. Response of Body Weight (Kg) to Short-Term Mixed Impact Aerobic Dance

Body Weight (Kg), was not changed by the exercise (short-term aerobic dance) intervention, (Figure 3). Body weight pre Exercise was 59,78 Kg and post exercise was 59,66 Kg, no significant different. Based on the previous studies, the change of body weight due to aerobic dance exercise will be seen significantly after 12 weeks (36 sessions), the loss of body weight was followed by the lower body fat percentage, (Pantelic, S. Et al, 2013; Jaywant, P. J., 2013; Nawawi, U., 2014).

4. Conclusions

Blood pressure and resting heart rate have responded positively to short-term mixed impact aerobic dance, but its effect on body weight seems does not appear yet. Therefore, authors state that the great benefits of exercise are obtained by proper formula of exercise program.

References

[8] American Heart Association. (2011). Blood Pressure & Heart Rate Chart. *http://www.heart.org/HEARTORG/*, Rev. 1, 11/24.

[9] American Heart Association. (2012). Blood Pressure Tracker – Instructions. *http://www.heart.org/HEARTORG/*, *American Heart Association, Inc*.

[10] Cardoso Jr, C. G. et al. (2010). Acute and Chronic Effects of Aerobic and Resistance Exercise on Ambulatory Blood Pressure. *Clinics*, 65 (3): 317-25.

[11] Chobanian, A. V. et al. (2003). Prevention, Detection, Evaluation, and Treatment of High Blood Pressure. *Seventh Report of The Joint National Committee*, 1207.

[12] Dong, B., Wang, Z., Wang, H-J., Ma, J. (2015). The Association between Resting Heart Rate and Blood Pressure among Children and Adolescents with Different Waist Circumferences. *European Journal of Pediatrics - Springer*, 174:191–197.

ISBN 978-616-278-391-3

[13] Fagard, R. H. (2001). Exercise Characteristics and The Blood Pressure Response to Dynamic Physical Training. Medicine & Science in Sports & Exercise-American College of Sports *Medicine*, Proceedings for this symposium held October 11–15, 2000, Ontario, Canada.

[14] Farah, B. Q., Christofaro, D. G. D., Balagopal, P. B., Cavalcante, B. R., Gomes de Barros, M. V., Ritti-Dias, R. M. (2015). Association between Resting Heart Rate and Cardiovascular Risk Factors in Adolescents. *European Journal of Pediatrics - Springer*, DOI 10.1007/s00431-015-2580-y.

[15] Guidarini, F. C. d. S., Schenkel, I. d. C., Kessler, V. C., Benedetti, T. R. B., Carvalho, T. d. (2013). Ballroom Dance: Chronic Responses on Blood Pressure in Medicated Hypertensives. *Brazillian Journal of Kinanthropometry and Human Performance*, 15(2): 155-163.

[16] Hsia, J. et al. (2009). Resting Heart Rate as a Low Tech Predictor of Coronary Events in Women: prospective cohort study. *BMJ*, 338:b219.

[17] Jarraya, M., Chtourou, H., Aloui, A., Hammouda, O., Chamari, K., Chaouachi, A., Souissi, N. (2012). The Effects of Music on High-intensity Short-term Exercise in Well Trained Athletes. *Asian Journal of Sports Medicine,* Volume 3 (Number 4), Pages: 233-238.

[18] Jaywant, P.J. (2013).Effect of Aerobic Dance on the Body Fat Distribution and Cardiovascular Endurance in Middle Aged Women. *Journal of Exercise Science and Physiotherapy, Vol. 9, No. 1: 6-10.*

[19] Jouven, X., Empana, J-P., Schwartz, P. J., Desnos, M., Courbon, D., Ducimetière, P. (2005). Heart-Rate Profile during Exercise as a Predictor of Sudden Death. *The New England Journal of Medicine*, 352:19.

[20] Kamso, S., Rumawas, J. S. P., Lukito, W., Purwantyastuti. (2007). Determinants of Blood Pressure among Indonesian Elderly Individuals who are of Normal and Over-weight: a cross sectional study in an urban population. *Asia Pacific Journal of Clinical Nutrition*, 16 (3):546-553.

[21] Malasky, B. (2010). Heart Failure – Diagnosis. *College of Medicine, University of Arizona*.

[22] Manjunatha, S. N., Revathi, D. M. L., Sharan, A. T., Chandrakumar, S. G., Sapna, I. (2014). Cardiovascular Responses to Different Musical Tempo during Post Exercise Recovery in Healthy Medical Students. *International Journal of Biological & Medical Research*, 5(2): 4031-4035.

[23] National Exercise Trainers Association. (2005). Choreography Volume 1. Minneapolis.

[24] Nawawi., U. (2014). The Effect of Low Impact and Mixed Impact Aerobic Exercise on Percentage of Body Fat. *Asian Social Science,* Vol. 10, No. 5.

[25] Petrofsky, J. et al. (2008). The Effect of an Aerobic Dance and Diet Program on Cardiovascular Fitness, Body Composition, and Weight Loss in Women. *The Journal of Applied Research*, 8:3.

[26] Pusat Data dan Informasi Kementerian Kesehatan Republik Indonesia Tahun 2014. Hipertensi. http://www.depkes.go.id/

[27] Rahajeng, E. & Tuminah, S. (2009). Prevalensi Hipertensi dan Determinannya di Indonesia. *Majelis Kedokteran Indonesia*, 59: 12.

[28] Reule, S. & Drawz, P. E. (2012). Heart Rate and Blood Pressure: Any Possible Implications for Management of Hypertension?. *Current Hypertension Reports,* 14(6): 478–484.

[29] Rodrigues, A. N., Abreu, G. R., Resende, R. S., Goncalves, W. LS., Gouvea, S. A. (2013). Cardiovascular Risk Factor Investigation: a pediatric issue. *International Journal of General Medicine,* 6: 57–66.

[30] Rogowski, O., Steinvil, A., Berliner, S., Cohen, M., Saar, N., Ben-Bassat, O. K., Shapira, K. (2009). Elevated Resting Heart Rate is Associated with The Metabolic Syndrome. *Cardiovascular Diabetology*, 8:55.

[31] The American Council On Exercise. (2001). Monitoring Exercise Intensity Using Heart Rate. *ACE Fit Facts*, http://www.acefitness.org

[32] Uddin, Md. J., *Alam*, N., Sarma, H., Chowdhury, M. A. H., Alam, A. S., Niessen, L. (2014). Consequences of Hypertension and Chronic Obstructive Pulmonary Disease, Healthcare-seeking Behaviors of Patients, and Responses of The Health System: a population-based cross-sectional study in Bangladesh. *BioMed Central Public Health*, 14:547.

[33] Williams, J. S., Brown, S. M., Conlin, P. R. (2009). Blood-Pressure Measurement. *The New England Journal of Medicine*, 360:5.

World Health Organization. (2013). A Global Brief on Hypertension (Silent killer, global public health crisis). *communications@who.int*, WHO/DCO/WHD/2013.2

ISBN 978-616-278-391-3

ACPES 2017
The 3rd International Conference on Physical Education, Health and Sport
ASEAN Council of Physical Education and Sport
"Best Practice for ASEAN+ Community: Enhancing Physical Activity, Physical Education, Sport, Health and Recreation"
2 - 5 September 2017
Saen Palm Convention Hall, Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom,Thailand
Hosted by: Kasetsart University

ACPES30-Full

TRADITIONAL GAMES AS POTENTIAL MULTI-SPORTS EVENT IN SOUTHEAST ASIA

Billy Castyana*[1], Mohammad Arif Ali[1], Mawarni Mohamed[2], Ani Mazlina Dewi Mohamed[2], Alfa Himmatul Aliyah[1], Karomah Destri Dani Frafastari[1]

[1]Universitas Negeri Semarang, Sekaran, 50229, Indonesia
[2]Universiti Teknologi Mara, Selangor, 40200, Malaysia
[*]Email : billycastyana@mail.unnes.ac.id

Abstract

Traditional games are closely related to society because it can form good social relations and create a sportsmanship, train physical abilities, sharpen intelligence as well as increasing self-confidence. Many countries in Southeast Asia have a lot of similarities, both from equipment and regulations. By looking at the many potentials and benefits of it, there will be many advantages can be taken if the traditional games are developed into sports then it is competed in a multi-sports event. Besides, traditional games meet several of the criteria set by the International Olympic Committee (IOC) as sports which can be conducted as multi-sports event, like the values of Olympism contained in it, the popularity possessed by traditional games in Southeast Asia, and it can be a new business developed. Some other advantages gained from the development of traditional games into a multi-sports event, including social and cultural, political and economic advantages, because with the emergence of this newly developed sports can indirectly raise the prestige of countries in Southeast Asia. However, traditional games still face problems, such as there is no regional organization which will be in charge to compile the regulations and people opinion regarding the development of it as sports and competes in multi-sports event. This research aims to show if traditional games have potential to develop as sports and compete in multi-sports event. Hopefully, there will be a movement to bring traditional games to the next level after this research is conducted.

Keywords: Multi-sports event, Traditional Games, Southeast Asia.

1. Introduction

Southeast Asia consists of several countries such as Indonesia, Malaysia, Singapore, Thailand, Vietnam, Philippines, Laos, Cambodia, East Timor and Brunei Darussalam. Some of them have culture, language, and even the same traditional games. This is because the populations of Southeast Asia have the same ethnicity called the Austronesian clump. According to Fischer (1980), the diversity of nations and various ethnic groups in Southeast Asia was caused by several things, including the differences between the parent in the Austronesians before they migrated. After migrating, they live in

different regions and islands, uniform environments, and their cultural adaptability to local nature. In a long time after migrating, they rarely communicate with each other. Since the proto-history era, the Austronesian family already had the same culture, one of them is a traditional game.

So many traditional games are growing in Southeast Asia until UNESCO sets the traditional game as the Intangible Cultural Heritage in the Children's Games in Southeast Asia category. In Indonesia, there are many traditional games which are often played by the public, and as mentioned above, some other countries in Southeast Asia have similar traditional games although with slightly different rules. One of them is the game named "Egrang". Indonesia recognizes the term "Egrang" as a game that uses a tool from two bamboo sticks, each bamboo measuring 4-5 meters, with a foothold found under the bamboo about 50 cm from the bottom of the bamboo. As in other countries like the Philippines, they call this game with the name "Kadang-Kadang". Both games have similarities in terms of equipments and regulations. There are also other traditional games like "Gasing" in Indonesia, the game is also available in other countries namely "Ba Ka Wong" in Thailand, and "Turumpo" in the Philippines.

Based on all similarities exist, the traditional games have potential to be developed as a competitive sport by equating rules that can apply in Southeast Asia. This also can be an opportunity for a multi-sports event to be conducted. Hopefully, through this event, traditional games can continue to be known and played by the next generation, also can open new opportunities for athletes who are underachievers and feel saturated in certain sports. In addition, this research will also be an academic paper that can be used as a basis for creating a traditional sports organization in Southeast Asia.

2. Literature Review

Traditional games are fun activities with simple rules and have different name in each country and passed down from generation to generation. According to Kurniati (2006), traditional games will develop the potential of each child. It is shown in the behavior of social adjustment while preserving and loving the culture of the nation. Atmadibrata (1981) said that some traditional games in Indonesia are alleged to have prestigious skills to entertain. If we studied about traditional games, we can find that some traditional games of Indonesia is educative, contains elements of physical education, accuracy, agility, cognitive, appreciation of the existing art elements, and can refresh the mind. Traditional Games also can be played by all.

Traditional games are also closely related to society because traditional games can form a good social relationship that can create a sportive, train physical abilities, sharpen intelligence and increase self-confidence. Traditional games also directly provide psychomotor, cognitive and emotional development as a result of the happy feelings of the players (Kovacevic & Opic, 2014). Besides, it also has many of the benefits and moral values contained. some of which is the value of fun or joy, in the world of play will create feelings of pleasure to the players (Dharmamulya, 1992). The pleasure that exists in the players will have progress. It is mean the progress in psychological factors because when people feel happy it can reduce stress level inside the players so it's easier when people do receive the new information. Furthermore, there is a value of freedom, someone who has a chance to play of course feel free from pressure, so that he will feel enjoy and happy. In this condition, it is certainly easier to incorporate positive and educational new things.

ISBN 978-616-278-391-3

Traditional games provide many positive effects for psychological of the players. The players will certainly feel happy, free, not bored and can exchange ideas with fellow friends. In addition, having friends means individuals will learn to understand each other about friend's personality, appreciate their friends and learn to socialize. The emergence of democratic values is also one of the benefits of playing traditional games, in a game every player has the same level, regardless of rich or poor, does not look smart or stupid. So if in a game of drawing by Rock-Paper-Scissors, "Hompimpah" or the other to determine who wins and who loses, then all players must obey the rules.

Traditional games, those are played by the group, can foster leadership attitudes. In each group, they will choose their respective group leader. The members of the group will surely obey their leadership and the sense of responsibility will automatically arise in a game aimed at winning, usually, the player has a full sense of responsibility because they will seek to gain victory. If they win, they will get an achievement and certainly gives a sense of pride that ultimately also affects the growth and development of individual skill who play it.

According to Sukatno (1981), traditional games can be devided into five types, the first games mimic the actions of adults, such as "Pasaran", "Mantenan", "Dhayoh-Dhayohan". The second game are to develop strengthness and hard-skill, for example, "Gobag Sodor", "Gobag Bunder", "Benthik Uncal", "Genukan", "Bengkat". The third game is to train the five senses, such as "Gatheng", "Dakon", "Macanan", "Sumbar Suru", "Pathon", "Dhekepan". The fourth games are to enhance the verbal capability, such as children's games with conversations/stories, guessing games. The last games with songs are to learn the rhythms' understanding, for example: "Jamuran", "Cublak Suweng", "Ancak-Pelak Alis", "Tokung-Tokung", "Blarak-Blarak Sempal".

The multi-sport event is a competition with several sports competitions. The sports that competed in multi-sport events have several criteria that must be fulfilled. According to Leigh Robinson (2016), some of the criteria mentioned among others are institutional, institutional can build a common perception in order to create a single thought that forms a fixed rule in the game so that the rule can be used universally. Then, another criterion put forward by Leigh Robinson is the values that exist in the Olympic movement, popularity, and the last is business capital. From the criteria that mentioned above, traditional games have the potential to become sports and hold multi-sport events because traditional games already have some of the criteria of one's popularity. Traditional games already have a high popularity, for example, the game "Gobag Sodor" is still played and the subject of physical education subjects in schools in Indonesia and other countries such as Malaysia "Gobag Sodor" or known as "Galah Panjang" is also still often played by communities in that country. With this potential, many advantages can be obtained if the traditional game can be used as a sport, both moral and financial.

Based on the grouping of the traditional games, many games have potential to be used as a sports and held multi-sport events with extraordinary concepts of multi-sport events usually. Some traditional games can be a multi-sport event because the traditional game already fulfills the criteria set by the International Olympic Committee (IOC). Some of the criteria include the history of the traditional game, traditional games can also be played by all age and gender. With traditional games that have been made multi-sport event can unite international relations and also built cooperation that has been established. In terms of the popularity of traditional games are no stranger to people in Southeast Asia because the traditional game is closely related to their culture that has been hereditary. With the popularity of traditional games, traditional games can be used as a new sport to attract some commercial companies to sponsor, as the arrival of traditional games developed into a new sport can

trigger the enthusiasm of people to participate in the development of traditional games into new sports, can create a new spirit for the community as well as for athletes who have been saturated with existing sports.

Some advantages gained from the development of traditional games into sports such as preserving the culture for traditional games is not forgotten by the community. In addition, with the new sport, this brings a new spirit for athletes who lose their passion in the old sports that has been flooded by many competitors. With the new sport, it can also foster a sense of attachment and unity of several countries in Southeast Asia because the cultural similarity (traditional game) owned by Southeast Asian countries can be a sporting event. In addition, it can generate discussion containers to improve and develop traditional games that will be developed into the sport.

Some sport compete at one time and inside the same organization are called multi-sport events. In the management of multi-sport event required a promotion, with the promotion, is expected to attract the attention of countries in Asia and even around the world. This sporting event can also serve as an icon of Southeast Asian culture, so it can attract the attention of other countries to come and attend Southeast Asian Games also promoting the culture in Southeast Asia that has many similarities.

In the multi-sports event the benefits gained not only boost the prestige of the traditional game, but also in other fields will get the benefit, for example in the social and cultural, political, and economic. These three advantages can not be separated because they are related. In the social and cultural benefits gained in the preservation of traditional games are threatened with extinction, with these advantages can raise the percentage of foreign tourists who come in Southeast Asian countries. In the politic benefits, bilateral and multilateral relations of Southeast Asia countries are becoming closer so as to enable them to cooperate in other fields. In the economic benefits, the increasing percentage of foreign tourists means increasing state visas, in addition, local netizens will also benefit from locally run businesses such as the sale of services and goods.

3. Methods

This is qualitative descriptive research using observation and information about this idea in order to strengthen the author's idea. Observations made by looking for a traditional game that has almost the same rules. For interviews, authors will use direct and indirect interviews about traditional games that will be developed into sports and will be incorporated into multi-sports events. The author will conduct interviews with representatives from 6 countries - Indonesia, Singapore, Thailand, Vietnam, Malaysia, and the Philippines. The selected countries are the countries that have cooperation with Universitas Negeri Semarang. The samples will be interviewed consist of students, both domestic and foreign, and a sports expert by those universities. They will be asked regarding the traditional games knowledge and their opinion, if, the traditional games become multi-sports events.

References

[1] Akbari, Hakimeh, *et al*.2009. *The Effect of Traditional Games in Fundamental Motor Skill Development in 7-9 Year-Old Boys*. Iran: Iranian Journal of Pediatrics. Vol. 19, No. 2: 123-129

[2] Aqilah, Nur Binti Mohd Yusof, e*t al*. 2013. *Traditional Games in Malaysia*. (online).http://traditionalgamescct.blogspot.co.id/2013/03/, accessed on 19 April 2017

[3] Ardiansyah, Faisal dan Sasminta Christina Yuli Hartati. 2014. *Pengaruh Permainan Tradisional Terhadap Efektivitas Pembelajaran Pendidikan Jasmani, Olahraga Dan Kesehatan (Studi Pada Siswa Kelas V SDN Kenongo II Tulangan Sidoarjo)*. Unesa: Jurnal Pendidikan Olahraga dan Kesehatan. Vol.02, No. 3:671 – 674

[4] Badu, Ruslin. 2011. *Pengembangan Model Pelatihan Permainan Tradisional Edukatif Berbasis Potensi Lokal dalam Meningkatkan Kemampuan dan Keterampilan Orang Tua Anak Usia Dini di Paud Kota Gorontalo*. Universitas Pendidikan Indonesia: Jurnal Penelitian dan Pendidikan. Vol. 8, No. 1

[5] Purwaningsih, Ernawati. 2006. *Permainan Tradisional Anak: Salah Satu Khasanah Budaya yang Perlu Dilestarikan*. Yogyakarta: Jantra. Vol. I, No. 1:40

[6] Putri, Aulia Rifki Nourovita. 2013. *Efektivitas Permainan Tradisional Jawa Dalam Meningkatkan Penyesuaian Sosial Pada Anak Usia 4-5 Tahun Di Kecamatan Suruh*. Taken from:http://journal.unnes.ac.id/sju/index.php/ijeces, accessed on 12 April 2017.

[7] Robinson, Leigh. 2016. *How sports get chosen for the Olympics*. *University of Stirling*. Taken from:http://theconversation.com/how-sports-get-chosen-for-the-olympics-62917, accessed on17 April 2017.

[8] Saputri, Lila Wijayanti. 2014. *Permainan Tradisional Yogyakarta, Sebagai Filter Dampak Negatif Budaya Luar Pada Masa Kanak-Kanak Akhir*. Taken from: https://www.academia.edu/7985352/permainan_tradisional_yogyakarta_sebagai_filter_dampak_negatif_budaya_luar_pada_masa_kanak-kanak_akhir,accessed on 12 April 2017.

[9] Wilqee. 2012. "Indonesian Traditional Games" (online), https://wilqee.wordpress.com/2012/11/14/indonesian-traditional-games/, accessed on 17 April 2017.

ISBN 978-616-278-391-3

ACPES 2017
The 3rd International Conference on Physical Education, Health and Sport
ASEAN Council of Physical Education and Sport
"Best Practice for ASEAN+ Community: Enhancing Physical Activity, Physical Education, Sport, Health and Recreation"
2 - 5 September 2017
Saen Palm Convention Hall, Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom,Thailand
Hosted by: Kasetsart University

ACPES31-Full

THE STUDY OF MASCULINITY AND FEMINITY PERCEPTION TOWARD SWIMMING CLASS IN JUNIOR HIGH SCHOOL

Alfa Himmatul Aliyah[*1], Supriyono[2]

Universitas Negeri Semarang, Sekaran, 50229,Indonesia
**Emailalfaaha05@gmail.c0m*

Abstract

Perception is a process that is learned through interaction with the surrounding environment and arises from childhood through interaction with other humans so that one element of organizing in the perception is done by observation. Perceptions often result in some impact, as well as perceptions of masculinity and femininity toward learning pools in students at Junior High School. In swimming, there is no different rule between men and women, this makes swimming as one of the sports that are prone to have differences in gender perceptions. Swimming is also a sport that is learned as one of the materials in Physical Education, it has a lot of usefulness and benefits, whether viewed from pedagogical, psychological, physiological, and sociological. The aim of this paper is to find out whether there is a problem in swimming learning related to differences in perception of masculinity and femininity. This is a qualitative descriptive research using observation and interview to get information on whether there is a difference of perception and treatment of students during the swimming class in Junior High School.

Keywords: Perception, Masculinity, Feminity, Swimming, Student.

1. Introduction

Gender differences are a theoretical and social category, as is race, class, age, ethnicity, and others in social analyses, as well as in sports learning. According to Theberge (in Koca, 2005), the existence of protrusions of physical and body elements in sport makes it related to ideological constructs of gender, so that the male-superiority in physical education is becoming stronger but there are some things that become obstacles in learning in schools, such as differences in perceptions about gender and the character of masculinity and femininity. Bryson (in Koca, 2005) also states that there are two things that result in the hegemony of masculinity in sport that is 1) the sport is related to the dimensions of maleness, about visible physical skills; 2) sports also associate the manhood with the use of force and violence, so that in the learning process of male and female learners are treated differently because of their masculinity and femininity levels. In swimming, there is no rule between men

and women, this makes swimming as one of the sports which are prone to differences in gender perceptions. Swimming is also a matter of Physical Education, it has many benefits, whether viewed from pedagogical, psychological, physiological, and sociological. Perception of teachers in educating students based on masculine and feminine characters is not appropriate in the swimming class because it will affect the exploration of the students. This will result in the influence of the personality and ability of students in following the swimming lesson because perceptions can also have negative and positive effects.

Perception is an individual process in interpreting, organizing, and giving meaning to the stimulus that comes from the environment in which the individual is located and is the result of learning and experience (Asrori, 2009). Perception can affect the individual in some ways, one of them is in physical education. The class will not be maximized if there is an inhibiting mindset, related to the level of masculinity and femininity because it can decrease students' self-motivation and self-confidence, so students can not exploit themselves maximally.

Teachers often generalize the ability and condition of students whereas the ability of each student is different, both in terms of physical ability and from mentality. They give equal treatment to the students without considering the character of each student. They are also less aware of problems in students' attitudes, making them less sensitive to their actions to solve and deal with differences in the character of each student. In class, the teacher should have treated students same with the portion adjusted to masculinity and femininity. Students who are more prominent and active (masculine) are sometimes more attention by teachers than passive learners (feminine). This makes it necessary to take the right attitude and strategy in the class so that students can follow well.

2. Literature Review

Perception is a process that is learned through interaction with the surrounding environment and arises from childhood through interaction with other humans. In line with that, Rahmat (1990) defines the notion of perception as the experience of objects, events or relationships obtained by inferring information and interpreting messages. This similarity of opinion is seen from the meaning of inferring information and interpreting messages that have relevance to the process to give meaning. Perception arises from childhood through interaction with other human beings, so that one of the organizing elements in perception is done by observation and ability in organizing can be used to differentiate the ability to group and the ability to focus. Therefore, a person may have different perceptions, although the object is the same. This is possible because of differences in the value system and individual personality traits concerned. According to Walgito (1989), there are three conditions of perception, the presence of perceived object, the presence of sensory or receptor devices, attention.

The existence of objects or social events that cause stimulus, and the stimulus of the sensing device (receptor). In this case, the object observed is the teacher's skill in taking actions and attitudes in the implementation of learning. The sensing device is the

primary tool in the individual's perception and is a means to receive stimuli, but there must also be a sensory nerve as a means to pass the stimulus received by the central nerve receptors of the brain as the center of consciousness. The attention of the individual is the first step in holding a perception. Without attention, there will be no perception. Individuals should have attention to the object in question. When you have noticed, then the individual perceives what he receives with the sensing device.

Furthermore, Walgito (1989) added that perception is influenced by many factors including the attention factor of the individual, which is the psychological aspect of the individual in holding the perception. Perceptions are influenced by self-related internal factors (eg educational background, experience differences, motivation, personality, and needs) and external factors related to the intensity and size of stimuli, movement, repetition and something new (Parek, 1984). Thus, talking about perception basically relates to the process of one's treatment of information about an object that enters into itself through observation by using the five senses it has. Perception can influence other human actions and mindsets so that perception can have advantages and disadvantages, as well as perceptions of masculinity and femininity. The negative impact of these perceptions is the decline in self-esteem.

Masculinity is a masculine behavior, walking and moving not with graceful, handsome, firm and not using cosmetics like some women. Masculine is often attached to men, as well as feminine that is often attached to women. On the contrary, feminine is often displayed with the figure of women who are motherly, gentle, diligent cooking, dressing and so forth. If associated with gender, then according to society should men should be masculine, and women should be feminine. The discussion about the role of men and women is indeed not separated from what periodization and where the comparison was done. If in Indonesia, while still feudal times will be different than when the colonial era and will be different when the era of independence and after. Each age has a different kind of relationship between men and women, but that does not mean the forms of dominance that are believed to be "should be" are lost. There remains a strong relationship disparity based on a very strong cultural building that can not change quickly. The human body, both men and women, should have their own authority. Women's bodies should also have their own independence, but often socially must ultimately relinquish their authority and submit to the prevailing traditions. In the Qubail community, depicted by Bourdieu, women should avoid public places, their views should not look at public areas so that when walking must lower their gaze and see their own feet. Showing faces, forehead, looking at face and eyes and talking publicly is the male domain monopolized by men (Bourdieu, 2010).

3. Methods

This research is descriptive qualitative by using observation and interview to get information about the difference of perception and its effect on the treatment given by the teacher. Observations and interviews will be conducted directly and indirectly on the perceptions of masculinity and femininity during the swimming class at Junior High School. The author will conduct an interview with a school in physical education subjects providing

swimming materials. Interviewees who will be interviewed are students who attend swimming classes, physical education teachers, and principals in the school. Interview questions that will be given include the perception of masculinity and femininity, the action will be done related to differences in perceptions of masculinity and femininity in the swimming class, as well as the obstacles that are experienced related to differences in perception.

References

[1] Anwar, M. Hamid, Saryon, 2009 *"Kontroversi Citra Perempuan Dalam Olahraga"*, Jurnal Pusat Pengembangan dan penelitian, Universitas Negeri Yogyakarta, Yogyakarta.

[2] Denham, Bryan E, 2010 "Masculinities and the Sociology of Sport: Issues and Ironies in the21st Centur", Sociology of Sport and Social theory, Amerika.

[3] Hattery, Angela J, 2010 "*Feminist theory and the Study of Sport: An Illustration from titleIX"*, Sociology of Sport and Social theory, Amerika.

[4] Humberstone, Barbara, 2002 *"Femininity, masculinity and difference: what's wrong with a sarong?"*, The Sociology of Sport and Physical Education, Amerika.

[5] Supriyanto, Agus, 2008 "*Pembentukan Karakter Olahragawan Ditinjau Dari Perbedaan Gender, Peran Serta Orangtua, Guru, Pelatih Olahraga Dan Keikutsertaan Dalam Aktivitas Olahraga Serta Jenis Olahraganya"* Jurnal Pusat Pengembangan dan penelitian, Universitas Negeri Yogyakarta, Yogyakarta.

[6] Wandi, Gusri, 2015 *"Rekonstruksi Maskulinitas: Menguak Peran Laki-Laki Dalam Perjuangan Kesetaraan Gender"* Jurnal Ilmiah Kajian Gender Vol.V No.2 Tahun 2015, Padang.

ISBN 978-616-278-391-3

ACPES 2017
The 3rd International Conference on Physical Education, Health and Sport
ASEAN Council of Physical Education and Sport
"Best Practice for ASEAN+ Community: Enhancing Physical Activity, Physical Education, Sport, Health and Recreation"
2 - 5 September 2017
Saen Palm Convention Hall, Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom,Thailand
Hosted by: Kasetsart University

ACPES32-Full

THE STUDY OF CHARACTER BUILDING THROUGH KARATE IN JUNIOR HIGH SCHOOL

***Karomah Destri Dani Frafastari*[*1], *Billy Castyana*[2], *Ipang Setiawan*[3]**

[123]*Universitas Negeri Semarang, Sekaran, 50229,Indonesia*
[*]*Email : destridani@gmail.com*

Abstract

Character building is a system of inculcating the values of character to the school community which includes the components of knowledge, awareness or willingness, and actions to implement those values. It is not only done through formal education but can be through various extracurricular activities, one of them is Karate. Karate is a martial arts sport from Japan that has positive lessons to the athletes. In karate, there is a philosophy that can be used as a medium to build the character of students such as patience, politeness, achievement, self-control, and positive thinking. In Indonesia, karate also has a meaningful oath for life that is the ability to self-maintain personality, uphold honesty, improve achievement, maintain good manners, and self-control. Based on the philosophy contained in karate and karate oath, it can be used as a character building media, therefore, it needs an academic script that aims to show how biggest the potential of karate as a way to build the character. In this study, the authors will conduct interviews to students who follow extracurricular karate, trainers, physical education teachers and principals in junior high schools who have these activities in Central Java.

Keywords: Character Building, Karate, Student.

1. Introduction

Indonesia is currently experiencing a moral decline due to lack of character building. Character building should be obtained early on and as time passes, the curriculum in Indonesia is changing which emphasizes character building. Character building is not only found in the school environment, but character building is also obtained in the community. Character building aims to form a nation that is tough, competitive, moral, noble, and tolerant. According to John W. Santrock, character building is a direct approach to moral education by instructing learners about basic moral knowledge to prevent them from engaging in immoral behavior or harm to themselves or others.

In order to create the quality of human resources to improve the life of the nation, everything can start from the education. Education establishes a nation because education serves to prepare society to face the competition in the future. Education also creates a person's character. According to David Popenoe, there are four kinds of educational functions such as selection,

alignment, social, school. This also applies Law no. 20 of 2003 on National Education System, article 3 states, national education function and build the character and civilization of dignified nation in the framework of educating the nation. National education for the development of potential learners in order to become human beings who believe and pious to God Almighty, good morality, healthy, independent, be a good citizen and responsible (Ministry of National Education, 2010).

Character building is not only done through formal education, one of them is Karate. "Karate-do" is a martial art that teaches athletes the opportunity to self-correct, take risks, and challenge each individual to practice continuously. They also learn about patience, mutual respect and always seek the essence of perfection as "Budo", someone who follows the martial arts with the spirit of "Bushido", the code of ethics of the Samurai knights in Japanese feudalism. Judging from the value contained in karate, so it can be used as media character building.

2. Literature Review

According to Indonesian Dictionary, the character is a morality that distinguishes someone from others. Gulo W (1982) describes characters that are viewed from an ethical or moral starting point, such as the honesty of a person, usually of a nature with nature. It means someone who behaves dishonestly, cruelly or greedily as a person of bad character, while a person who behaves honestly, loves to help people of good character. So the term character is closely intertwined with one's personality and it is very important in daily life. Character building not only can be taught in the house but can also be in school or in the neighborhood.

Character building is a system of inculcating character values for students that include the components of knowledge, awareness or willingness, and actions to carry out those things. This character includes reflective, confident, rational, logical, critical, analytical, creative and innovative, independent, healthy life, responsible, patient, cautious, willing to sacrifice, courageous, trustworthy, honest, fulfill the promise, fair, humble, embarrassed to do wrong, forgiving, gentle, faithful, hard working, diligent, persistent, meticulous, initiative, positive thinking, disciplined, anticipative, initiative, visionary, earthy, passionate, dynamic, efficient, dedication, self-control, productive, friendly, aesthetic, sportive, steadfast, openness, and orderly. Character building can also be interpreted as the deliberate use of all dimensions of school life to foster optimal character development. According to Tadkiroatun Musfiroh (2008), the character refers to a series of attitude, behavior, motivation, and skills.

One way to build a character is through extracurricular activities as it is effective in helping students to build character so that additional feelings are emerging by the school community. What Lickona has to say about extracurricular activities that can build children's character, almost all schools offer a variety of extracurricular activities. In Clovis, California, the elementary school gives a unique blend of this one effort. They increase the importance of extracurricular activities by calling it a "co-curricular program" and they are trying to get all the fourth graders up to sixth grade to participate. This co-curricular program also contributes to the development of good discipline, for example, if children do not do their homework on a specified schedule (or have no reason), or engage in certain behavioral issues, there will be a letter sent home and They have to go to "study with supervisor" class the next day after school hours. This means they will lose their co-curricular

ISBN 978-616-278-391-3

activities after school, usually, they will begin to improve themselves.

One effort to educate the character is through physical activity done in schools such as curricular activities, inter-curricular, and extracurricular. Curricular activities are learning activities that are conducted through face-to-face with the time allocation set in curriculum programs such as face-to-face in the classroom, in the practice room or other facilities. Intrakurikuler is a learning activity conducted through face to face with the allocation of time that has been determined in the program structure. Extracurricular activities are learning activities that are conducted outside of school hours, usually implemented in the school or outside the school to further broaden the insight or ability to enhance and apply the value of knowledge and abilities that have been learned from various subjects. This activity aims to improve and consolidate students' knowledge, develop, interests, abilities, and skills in personal coaching efforts and recognize the relationship between subjects in community life (Ministry of Education and Culture, 1995).

The purpose of extracurricular is to improve and consolidate students' knowledge, develop talents, interests, abilities, and skills in personal coaching efforts, so that ability or talent is not used as a hobby, but can produce achievement, and recognize the relationship between subjects in public life. Extracurricular activities are part of the curriculum that has clear goals and objectives so that in the principal of the implementation does not deviate from the existing provisions. Ministry of National Education (2005: 25) in Education Unit Level Curriculum explained that extracurricular activities aimed at enabling students to enrich and broaden their horizons, promote values/attitude, and the possibility of further application of knowledge learned from various subjects in the curriculum, Both core, and specialized programs. The scope of extracurricular activities encompasses all life that can support and support curricular activities with features, such as broadening the horizons, containing the application of various subjects that have been studied, require a separate organization, given complex tasks and activities, done outside of the lesson. Extracurricular activities are one of the efforts of coaching sports that exist in schools that include volleyball, basketball, soccer, karate, Pencak Silat and others.

One of the extracurricular is karate. Karate has character values, including religious, disciplined, honest, tolerant, hard work, creative, independent, democratic, curiosity, the spirit of nationality, love of the homeland, communicative, respectful of achievement, peace of mind, caring for the environment and society, and responsible. Karate is a martial arts sport originating from Japan but its popularity is undoubtedly all over the world. Karate itself was not originally a sport that specialized the students to learn techniques to defend themselves, but karate master, Gichin Funakoshi, explained that karate is a philosophy martial arts. Philosophy in karate contains values that exist in the character, namely: 1) Karate begins with a salute and ends with a salute as well; 2) No first attack on karate; 3) Karate is a way of justice; 4) Control yourself before controlling others; 5) The first is spirit, the technique is next; 6) Always ready to free your mind; 7) Recklessness arises from carelessness; 8) Do not think that karate training can only be in "Dojo"; 9) Learning karate takes a lifetime and has no restrictions; 10) Put karate in your daily life, then you will find "Myo" (hidden secret); 11) Karate is like boiling water. If you do not heat it regularly, it will cool down; 12) Do not think you should win, but think that you can not lose; 13) Victory depends on your skill in distinguishing points that are vulnerable and those are not; 14) The fight is based on how you move carefully and not move according to your opponent; 15) Your hands and feet are swords; 16) If you leave home, think that you have many opponents waiting. Your behavior

invites trouble; 17) Beginners must master posture, how to stand, and natural body position firstly; 18) Practicing "Kata" is one thing, getting involved in a real fight is another; 19) Do not forget to properly demonstrate the advantages and disadvantages of strength, stretching and contraction of the body, and the rapidity of technique; 20) Always think and try to find a way to live by the rules above every day.

In karate, students do not only practice in terms of techniques such as punches, kicks, and tires only but are also taught how to manners, high morals, and other things included in the karate oath. It describes an ethic in everyday life both in the "Dojo" (training ground), as well as outside the "Dojo". Ethics are visible from the smallest thing that is respecting the training ground, although the invisible exercise is only an empty place, inside there is a very big essence of the practice that we respect will generate a great spirit at the time of practice. Karate is a sport that has a sacred philosophy and it all leads to the character points that must be owned by someone. In a karate, the oath demands a "Karate-ka" to nurture a personality, obey to honesty, improve performance, maintain good manners, and be self-controlled.

3. Methods

This research uses a qualitative descriptive method with observation and interview to get opinions and information about this idea in order to reinforce the author's idea. Observations were made at schools that had karate extracurricular in Junior High Schools throughout Central Java. For interviews, the author will conduct interviews directly and indirectly about karate extracurricular which can be used as a vehicle for karate education. The author will conduct interviews with students following extracurricular karate, karate coach, physical education teacher, and school principal from representative schools from 35 cities throughout Central Java.

References

[1] Ministry of National Education. 2010. *Pembinaan Pendidikan Karakter di Sekolah Menengah Pertama* . Jakarta

[2] Lickona, Thomas. 2008. *Pendidikan Karakter (Panduan Lengkap Mendidik siswa Menjadi Pintar dan Baik).* Bandung: Nusa Media.

[3] Muzamil, Ahmad. 2015. *Pendidikan Karakter Melalui Kegiatan Ekstrakulikuler Karate Bkc pada Siswa MI Nurussibyan* (Skripsi). Semarang: Universitas Islam Negeri Walisongo.

[4] Turnbull, Stephen. 2006. *Samurai: The World of the Warrior*. Osprey Publishing.

[5] Utomo, Adi Sasmito. 2011. *Survei Minat Siswa dalam Mengikuti Kegiatan Ekstrakurikuler Olahraga di SMP N 2 Tuntang Kabupaten Semarang tahun 2011* (Skripsi). Semarang: Universitas Negeri Semarang.

[6] Wibowo, Agus. 2012. *Pendidikan Karakter (Strategi Membangun Karakter Bangsa Berperadaban).* Yogyakarta: Pustaka Pelajar.

[7] Yulian, Ivan. 2012. *The Way of Karate-Do (20 Sikap Mental Karateka Sejati).* Jakarta: Mudra.

ISBN 978-616-278-391-3

ACPES 2017
The 3rd International Conference on Physical Education, Health and Sport
ASEAN Council of Physical Education and Sport
"Best Practice for ASEAN+ Community: Enhancing Physical Activity, Physical Education, Sport, Health and Recreation"
2 - 5 September 2017
Saen Palm Convention Hall, Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom,Thailand
Hosted by: Kasetsart University

ACPES42-Full

AWARENESS EDUCATION OF SPORT SUPPORTERS ON AGGRESSIVENESS PHENOMENA IN SPORTS

Tan Chee Hian. *[1], Azizan Asmuni. [2], Rahim Md Sail. [3], Zaharul Azwan Abdul Razak[4] and Mawarni Mohamed[5]

1Faculty of Sports Science and RecreationUniversiti Teknologi MARA Shah Alam
2,3Faculty of Educatio Universiti Putra Malaysia
4,5Faculty of Education UiTM Selangor.

Abstract

This study showed overall awareness education that learnt and performed by all sport supporters no matter whatsoever, Gender, Age, HEI attended, Types of sport, Favorite sports or Ethnicity were high alert and aware level especially on the phenomena of aggressiveness in sports. Aggressive phenomena could happened at anytime and anywhere as far as sports concerned. Supporters in this study learned skills of managing on those incidences were in good form as sport education perspective was concerned where, sports sociology education was highly emphasizing on "outside" of one person which highly involve surrounding of the one to take part especially as sports supporters in this study. As conclusion, only the level of study among sport supporters played a significant factor to influent the differences awareness level toward aggressiveness phenomena among them and this findings managed to roundup several research questions: 1. How aware of sports supporters' education on aggressiveness that they were taking part? 2. Do supporters learned overall managing skills on aggressiveness phenomena while their involvement. 3. Is there any significance differences awareness among gender? 4. Is there any significance differences awareness among sports supporters with their demographic variables. 5. Is there any predicted factors that could affected overall awareness on aggressiveness among these sports supporters?

Keywords: Sport Sociology Education, Phenomena, Awareness Education, Sport supporters and Aggressiveness.

1. Introduction

This study was based on Sport Sociology Education perspective with students' experiences in their sports involvement as far as sports' supporters defined (Longman Dictionary of Contemporary English, 1978). Over years of experiences in conducting sports sociology education, researcher found that there was increasingly difficult to gain fulfilment the sports

ISBN 978-616-278-391-3

aggressiveness phenomena while students taking part by themselves in sports' event which emphasizing on awareness of supporters in whatsoever types of sports.

These sports' aggressive right verbally or physically phenomena would be based on how aware of all sport supporters skills in managing aggressiveness during the events, appropriateness application of rules and regulation, ways of motivating athletes with audiences as well as trying in minimizing self- interest among athletes in this study. Moreover, in this study the gender, age and other demographic data of one' supporter been investigated by survey questionnaire distributed by self – administrated of the study's researcher.

Problem Statement

Now a day, in the globalization of presence economic situation has a huge impacts in varies aspects especially on those developing countries like Asean around Malaysia and the free of charge sport supporters basis were even hardly to see and this could be a very serious ""gap" in humanitarian problems arise and in term of sports' arena, whatsoever the phenomenon, it was time to search the beauty of sports sociology education which venture sports supporters especially on how they perceived the mild or weird incidences liked aggressiveness as well as the ways of solving or handling the situation among supporters past experiences (Ahmed Shabin., & Krishnaveni, K. 2014). On top of it, it was wonder how education level of sport supporters could managed and how far sports supporter perceived about the implementation of rules and regulation as well as their readiness to expose self as far as sports concerned.

2. Experimental Work/Research Methodology

Method Used It was a survey method quantitatively designed study, it was self- administrated and the questionnaire was adapted and adopted with reliability tested (r = .75) among a group of 306 sports' supporters whom aged of 19 to 28 years old. Convenience samplings chosen and the respondents were mostly from an avenue which been organized for varies sports' events festive in one of the Higher Educational Institution of Malaysia (HEI). The presence findings with constructed questionnaire that consisted four dimensions during pilot study which was finalized this survey's instrument with factorial analyzed commanded and at the same time, inferential statistic, descriptive statistical were performed in this study.

Model Based Model or educational theoretical based of this study was the socialization which was defined as a complex developmental learning process that teaches the knowledge, values, and norms essential to participate in social life (Coakley, 1993; 2006b). There were 3 main factors involved in this socialization such as personal attributes, significant of others and socialization situation (Socialization into sports by functionalist, Coakley, 2007)

OPERATIONAL DEFINITION

2-5 September 2017
Saen Palm Conventiona Hall
Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom, Thailand
ISBN 978-616-278-391-3

Aggressiveness - verbal or physical actions grounded in an intent to dominate, control, or do harm to another person. Operationally, it was to measure on the ability of sport supporters to identifying problems arise (aggressiveness) which cause by sports' athlete in sports events.
Managing sports aggressiveness which is operational to investigate the ability of sports supporters to organize, to manage either in principle, strategies and method to motivate among supporters in order to create a sense of accomplishment.
Implementation skills of sports' supporters which comprised of the implementing latest moral supports, realizing the applying of proper rules and regulation performed by the organizer or even to apply strategies to improve relationship among players and audiences.
Demographic variables in this study consisted faculty attended, favorite sports they involved, level of involvement in sport, age, gender, ethnic and level of study in Higher Education Institution concerned.

3. Results and Discussion

It was applying both descriptive and inferential statistical techniques. In order to capture the research questions of the study constructed and interpretation of them according to sub topics showed with table 1 to table 9 respectively.

Descriptive Results

As far as descriptive statistical concerned, the findings would be described as following tables and interpretation.

Table 1: Types of Sport Involved by Respondents (n = 306)

Types of Sport	Freq	%
Netball	78	26
Badminton	42	14
Volleyball	30	10
Football	24	8
Futsal	24	8
Petanque	24	6
Handball	12	4
Tennis	12	4
Cycling	12	4
Bowling	6	2
Softball	6	2
Silat	6	2
Kayak	6	2
Swimming	6	2
Chess	6	2
Karate	6	2
Basketball	6	2

ISBN 978-616-278-391-3

Table 1 showed that there were various types of sports involved by the 306 respondents as sport supporters and the highest rate was in Netball (26%), means that there were 78 out of total sport supporters, followed by badminton game (14%), volleyball game (10%), football, futsal were 8% respectively, petangue (6%), handball, tennis, cycling with 4% respectively and the rest was 2% rate with bowling, softball, silat, kayak, swimming, chess, karate and basketball which mean this study considered investigated broaden sports throughout the observed.

Table 2: Level of Involvement in Sports among Respondents (n = 306)

Level of Involvement	Freq	%
Faculty	162	53
HEIs	78	25
State	48	16
National	18	6

Majority as 162 respondents (53%) were at faculty level of involvement, HEI was 25% which equivalence to 78 respondents. Where else self - involvement to state level consisted 48 respondentsand last but not least the national level involvement among this group of sport supporters were only 18 persons (6%).

Table 3: Gender of Respondents (n = 306)

Gender	Freq	%
Males	102	34
Females	204	66

Table 4: Ethnic of Respondents (n = 306)

Ethnic	Freq	%
Malay	276	90
Bumiputera	30	10

Most of the respondents were females with 66% rather than males with 34% in this study concerned and most were Malay sport supporters and only 10% of them was Bumiputera, (Refer table 3 and 4).

ISBN 978-616-278-391-3

Table 5: Level of Study among Respondents (n = 306)

Level of Study	Freq	%
Degree	176	58
Diploma	130	42

Table 5 showed close equal rate of sport supporters among first degree holders with 58% of them and 42% was diploma holders.

Table 6: Descriptive Results of Awareness' Level among Respondents (n = 306)

Dimensions	mean	St. Dev.
Identify problems arise	3.80	.623
Managing problems	4.11	1.560
Implementation Rules	4.01	.579
Communication	3.94	.712

Table 6 showed the results descriptively on all dimensions of awareness education learned by 306 respondents in this study. The ability of identifying problems arise during the sports' event which with mean score of 3.80 and standard deviation .623, how capable all respondents in managing problems arise with mean score of 4.11 and standard deviation 1.55 respectively.

Where else, dimension of realizing how vital was implementing rules and regulation in sports events as well as communicating skills needed in all sports events concerned with overcoming aggressiveness with the mean score of 4.01 and 3.94 respectively.

Inferential Results

On top of descriptive statistic results and in one way of answering the hypothetical constructed, the inferential results showed as the following explanation.

Table 7: Awareness on Sports Aggressiveness among Gender of Respondents (n = 306)

Level of Awareness	n	Mean	Std Dev
Males	102	4.14	1.132
Females	198	3.93	.513

ISBN 978-616-278-391-3

As showed in table 7, descriptively awareness among gender of sport supporters specifically aggressive phenomenon were equal high aware among them with the mean score of 4.14 (males) and 3.93 (females) separately as standard deviation of 1.132 and .513 respectively. This result indicated that both gender highly aware and alert enough of this issue in sports while they were acted as supporters of their favorite sports in particular sports' venue concerned.

Where else, Ho2 stated as there was no significance differences awareness among sport supporters with other demographic variables (Faculty Attended, Favorite Sports, Level of Involvement, Age of Supporters, Gender of Supporters, Ethnic of Supporters and Level of Study) and the ANOVA resulted in Table 8 showed that, there was no significance differences of issues on management skills needed by overall sport supporters specifically like identifying problem arise at venue, implementation of rules and regulation in sports, organize and motivate athletes to complete mission peacefully, implementation to improve relationship among athletes and audiences, application of sports rules at the court or field with their faculty attended, favorite sports, level of the own involvement, age, ethnic and gender after sports sociology and awareness education process with the significance reading of F values: 1.150., p = .168, >.005., F: 1.495., p = 160, > .005., F: .524., p = .668, >.005., F: 1.718, p = .196, >.005., F: .759, p = .388,> 0.005., F:.000, p = .995, >.005 respectively excepted the level of study among 306 sport supporters with F: 8.885., p = .005.

Perhaps almost all other demographic factors that been stated for statistical test with null hypotheses were fail to reject as Ho2 stated, accepted the level of study among them. Thus, it could be concluded that only the level of study among sport supporters either with their degree or diploma that showed differences awareness level in this study perhaps it was weak result considered.

Table 8: ANOVA resulted on the Differences Awareness Level among Respondents with other Demographical Variables (n = 306)

Factors involved	F	Sig.
Faculty Attended	1.510	.168
Favorite Sport	1.495	.160
Level of Involvement	.524	.668
Age of Respondents	1.718	.196
Gender of Respondents	.759	.388
Ethnic of Respondents	.000	.995
Level of Study	8.885	.005

Research question 5 was planned to predict with statistically which demographic variables that affect or influence the overall awareness level among sports supporters in the issues of aggressiveness phenomena in sports with hypothesis stated - Ho3: There was no any significance predicted factors that affected awareness among sports supporters

ISBN 978-616-278-391-3

Multiple regression applied and the results showed in table 9 that there was sufficient enough fact that it could go in line with others academic research studies which even similar result with the ANOVA results where, the level of supporters' study considered had highly predicted factor that could affect the level of awareness among this group of sports' supporters even in difference venues or time of the events taking part with the reading of Beta .411 and significant level less than 0.05, this was supported with R as .494 and R^2 with .244 which means comparatively moderate to weak findings of this study compared with previous studied concerned (Bird, K.S., Tripney, J., & Newman, M. , 2013).

Table 9: Predicted factors Affect Awareness among Respondents (n = 306)

Factors	Beta	Sig.
Faculty Attended	.115	.405
Favorite Sport	.072	.656
Level of Involvement	.218	.216
Age of Supporters	.272	.080
Gender of Supporters	.051	.745
Ethnic of Supporters	.390	.629
Level of Study	.411	.008

R = .494., R^2 = .244

4. Conclusion

This study showed that overall awareness level that performed by these sports supporters were very high alert and aware of aggressiveness phenomena that could happened anytime and anywhere as well as their had learned of managing skills in those incidences were in good form as far as sport sociology education was concerned where, sports sociology education was highly emphasizing more on "outside" of one person which highly involve surrounding of the one to take part especially as sport supporters in this study in order to answer the first and second research's question. In term of demographic variables that been investigated by this study showed gender was not the factor as well as faculty that attended by all sports supporters, their favorite sport concerned, their age to involve as supporters or even their race considered were not find as main factors make the differences in awareness level of sports aggressiveness. However, the level of study among them played a significant factor to affect the different awareness level toward aggressiveness phenomena and this was supported by previous studied or in line with the study of Bird K.S., Tripney. J., & Newman, M. 2013 for the predictable factor. Hence, higher education level plethora as the main indicator of tolerances and educated individuals concerned.

As far as sport sociology education, the body of knowledge is concerned, more respondents included post graduates and broader scope of research recommended. Qualitative research method could be considered and focus group needed to work out for future study.

Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom, Thailand
ISBN 978-616-278-391-3

References

Bird, K.S., Tripney, J., & Newman, M. (2013). The educational impacts of young people's participation in organized sport: a systematic review. *Journal of children services. Vol.8 No 4 2013, pp 264-275.*

Coakley, J. (2007). *Sports in society - Issues & controversies*. (9th Edit). McGraw Hill, New York.

Coakley, J. (1992). Burnout among adolescent athletes: a personal failure or social problem. *Sociology of Sport Journal, 1992, 9, 271-285.*

Krishnaveni, K., & Ahmed Shabin. (2014). Aggression and its influence on sport performance. *International Journal of Physical Education, Sports and Health 2014; 1(2): 29-32.*

Leonard, W.M. (1998). *A sociological perspective of sport*. (5th Edit). Allyn & Bacon Company.

O' Domoghue, P. (2012). Statistics for sport and exercise studies – an introduction. Routledge. London and New York.

ACPES
ASEAN Council of Physical Education and Sport
2-5 September 2017
Saen Palm Conventiona Hall
Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom, Thailand
ISBN 978-616-278-391-3

ACPES 2017
The 3rd International Conference on Physical Education, Health and Sport
ASEAN Council of Physical Education and Sport
"Best Practice for ASEAN+ Community: Enhancing Physical Activity, Physical Education, Sport, Health and Recreation"
2 - 5 September 2017
Saen Palm Convention Hall, Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom,Thailand
Hosted by: Kasetsart University

ACPES47-Full

STUDENTS' AFFECTIONS TOWARD PHYSICAL EDUCATION

Heny Setyawati[1], Fatona Suraya[2], Rivan Saghita Pratama[3]

[1] *Faculty of Sports Science, Universitas Negeri Semarang, F1 Building 1st Floor Sekaran Gunungpati Semarang, 50229, Republic of Indonesia*

Abstract

The Indonesian national system put students as the object of learning and their voice are likely not counted. In fact, asking and listening to the students' affections toward their learning interest are very essential to create an effective learning (Foley, 2015). This research is an explorative research design aims to investigate the students' affections toward Physical Education based on three criteria: awareness, seriousness and activeness in Joining Physical Education. A purposive sampling method was used; pointing on 3 cities in central Java Province which representing 3 parts of Central Java, those are Semarang City (central), Tegal City (western) and Salatiga City (Eastern). There were 10 % of the total students on 57 schools in Central Java (3404 students) were investigated using a set of closed questionnaire. The result showed that for the indicator of students seriousness 73, 1 % is in good category, the students' awareness 57.9% is in good category and for the activeness 67, 0% is in good category. It suggested that the students' affections are in good condition and it should be the consideration of teacher, lecturer and stakeholder to maintain or improve the condition for the effective learning of Physical Education.

1. Introduction

According to the Indonesian National Education System, Law number 20 year 2003, there are at least 3 actors who are responsible for the quality of national education, those are: parents, society and government (Chapter IV, Law No.20 year 2003). Students who are the object of education is not counted yet and role as passive subjects in Indonesia education system. In fact, asking and listening to the students' affections toward their learning interest are very essential to create an effective learning (Foley, 2015). Vgotsky as cited by Budiningsih (2011) emphasized that a meaningful learning, needed to be designed and developed based on the students' condition as they are the subject of learning. The minister of

ISBN 978-616-278-391-3

Education and Culture 2014-2016, Anies Baswedan was also pointed out on the important of listening to the students' aspiration "I want to hear from the students since they are the ones who will get the impact" (Hartono, 2014). In line with Baswedan, Watts (2009) saw the students as the main consumption of education; their perception could bring insight and information about education that they have received.

Physical Education is a requirement subject in Indonesia national curriculum; it covers 4 domains of learning: cognitive, physical, affective and psychomotor. The standard competences of Physical Education cover varieties of motor activities that should be available to be selected by students according to their interest. Nevertheless, "the students' right" to be a part of decision maker is likely has not been realized yet.

A preliminary research has been conducted in high schools in Central Java focusing on the position of Physical Education according to the students' perspective. There were 751 students participating from three different high schools: in central part (Semarang), western part (Tegal) and eastern part (Salatiga). The result showed that 60% of the students like Physical Education, 26% like certain materials only and the rest 14% did not like Physical Education. The result of the research suggested that in Physical Education conformity between material being taught and the way of teaching influenced the students' interest toward Physical Education. Nonetheless, there were minimum studies focusing on the actual condition of students' affections toward Physical Education. Therefore, this research focused on how is the students' affections toward Physical Education? The researcher focused on students point of view, students attitude, students expectation and students readiness on Physical Education subject. This study gave an accurate and comprehensive data about students' affections toward Physical Education for high school level in Central Java regency. The result of this study will be useful for curriculum, syllabus and lesson plan development. The stakeholder may considering the result of this study for reflection in decision making and policy control related to the Physical Education

2. Experimental Work

This research is an explorative research design since the object being investigated is the unknown information and never been explored before in Central Java. The population is high school students in Central Java province and the sample are students from 57 high schools (private and public) in three different cities. The sample were taking using purposive sampling method, pointing on 3 cities in central Java Province which representing 3 parts of Central Java, those are Semarang City(central) , Tegal City (western) and Salatiga City (Eastern). There were total 29.881 students in the sample school and 10 % of the total students (3404 students) were investigated using a set of closed questionnaire. All of the questionnaires were well submitted and answered completely. The data were interpreted using hermeneutic approach.

ISBN 978-616-278-391-3

3. Results and Discussion

The students` affections toward Physical Education are evaluated using 3 main indicators: the first one is the students' seriousness in learning Physical Education; the second one is the students' awareness to join and participating in Physical Education course, and the last one is the students' activeness in joining Physical Education course. The frequency distribution from the three indicators can be seen in table 3.1 as follows:

Tabel 3.1 Frequency Distribution of Students' Affections toward Physical Education

Categories	Interval	Sub 1		Interval	Sub 2		Interval	sub 3		Interval	Indikator	
		f	%		F	%		F	%		F	%
Excellent	24-28	443	13	17-21	1302	38,2	15-17	218	6,4	54-64	580	17
Good	19-23	2487	73,1	13-16	1970	57,9	12-14	2279	67	44-53	2502	73,5
Average	14-18	462	13,6	9-12	123	3,6	9-11	863	25,4	34-43	312	9,2
Below Average	9-13	12	0,4	5-8	9	0,3	6-8	44	1,3	24-33	10	0,3
Mean	20,81			16,09			12,10			49,01		

\

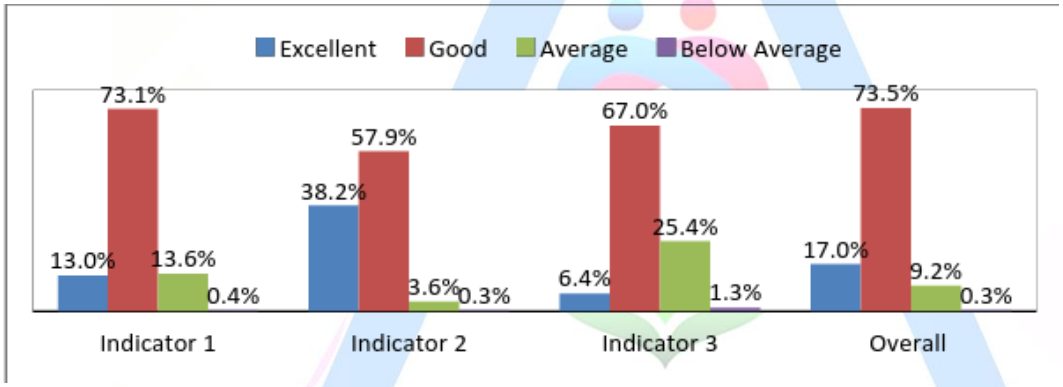


Figure 3.1 The Indicator of Students' Affections toward Physical Education

According to table 3.1 we could explain that:

1. For indicator number 1, students' seriousness in joining Physical Education is in the good category which is at intervals 19-23. It shown that 13,0% is in excellent category, 73,1% is in good category, 13,6% is in average category, and 0,4% in below average.
2. For indicator number 2 on awareness lie in the good category that is at intervals

ISBN 978-616-278-391-3

13-16. It shown that 38.2% are in excellent category, 57.9% in good category, 3.6% in average category, and 0.3% is in below average category.

3. For indicator number 3 is the activeness of learners in learning Physical Education; it is in good category that is at interval 12 - 14. It shown that 6.4% in excellent category, 67,0% in good category, 25,4% In average category, and 1.3%. is in below average category.

4. For the analysis of the three indicators, it can be seen the indicator about the affection of learners against Physical Education is in the good category that is at intervals 44 - 53. Those are: 17.0% in excellent category, 73.5 % in good category, 9.2% in fair category, and 0,3 % is in below average category.

In order to find out the data dissemination of the students' affections toward Physical Education between gender, class/grade, and age that have been interpreted to the scoring category, a cross tabulation analysis was conducted. The result of distribution of score can be seen in table 3.2 :

Tabel 3.2 A Cross Tabulation on the Students` Affections toward Physical Education

Class/Grade	Age	Gender	Categories Excellent	Good	Average	Below Av
	15 years	Boy	39	269	27	0
		Girl	25	209	14	1
	16 years	Boy	41	181	29	
		Girl	79	247	28	
	17 years	Boy	10	36	9	
		Girl	9	33	3	
	18 years	Boy	1	0		
		Girl	1	1		
Grade X	total		205	976	110	1
	15 years	Boy	5	19	1	1
		Girl	1	4	1	0
	16 years	Boy	39	233	42	1
		Girl	22	147	10	1
	17 years	Boy	54	193	38	3
		Girl	38	221	28	3
	18 years	Boy	16	35	11	
		Girl	2	25	1	
Grade XI	total		177	877	132	9
	15 years	Boy		1		
		Girl		7	0	
	16 years	Boy		4	1	
		Girl	27	141	16	
	17 years	Boy	41	108	8	
		Girl	72	173	26	
	18 years	Boy	55	202	15	
		Girl	0	6	2	
	19 years	Boy	3	7	2	
Grade XII	total		198	649	70	
Total			580	2502	312	10

ISBN 978-616-278-391-3

According to the cross-tabulation of the distribution data above, comparing between the characteristics of respondents by sex and age from the total 3404 respondents; It can be explained that the distribution of students answer are in good category. From the results of the data above, the distribution then proceeded by analyzing the coefficient of IQV to explain each distribution of data variability of respondents based on class, age, and gender. The calculation results of the distribution of IQV data is as follows:

Table 3.3 Index of Qualitative Variation (IQV) Students' Affections Indicator toward Physical Educatio

Respondent		Coefficient Score of IQV
Grade	X	0,52
	XI	0,56
	XII	0,59
Age	15 years	0,42
	16 years	0,56
	17 years	0,59
	18 years	0,62
	19 years	0,68
Gender	Boy	0,59
	Girl	0,52

From the table above it can be explained that IQV respondents based on class variability is higer in class XII with IQV value of 0.59. IQV respondents based on age variability is higher at the age of 19 years old with an IQV of 0.68, while IQV respondents by type of gender is more variable in men with a value of 0.59. From the results of IQV above it can be explained that the variability of the distribution or distribution of data indicator students' affection toward Physical Education has a different distribution of data for each group. It means that the data collected shows the distribution of data varies. With the result of variability of class group distribution in class XII, age group at age 19 years and variability of distribution group of male gender.

4. Conclusions

The data showed that students seriousness 73,1 % is in good category, the students awareness 57.9% is in good category and for the activeness 67,0% is in good category. It can be concluded that the affection of learners towards Physical Education. It suggested that the students affections, according to the three mains indicators namely awareness, seriousness and Physical Education activities are in the good condition. The result should be the consideration of teachers, lecturers and stakeholders to maintain or improve the condition for the effective learning of Physical Education.

References

[1] Budiningsih, Asri. 2011. "Karakteristik Siswa Sebagai Pijakan Dalam 4Penelitian Dan Metode Pembelajaran". *Cakrawala Pendidikan, Jurnal Ilmiah Pendidikan*. Th.XXX. Vol.1, Februari 2011 (160-173). Yogyakarta: UNY.

[2] Foley, Dave. 2015. *5 Tips for Better Relationships With Your Students: Get to Know Your Students*. http://www.nea.org/tools/51057.htm (Retrived on Januari 6th, 2015)

ISBN 978-616-278-391-3

ACPES 2017
The 3rd International Conference on Physical Education, Health and Sport
ASEAN Council of Physical Education and Sport
"Best Practice for ASEAN+ Community: Enhancing Physical Activity, Physical Education, Sport, Health and Recreation"
2 - 5 September 2017
Saen Palm Convention Hall, Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom,Thailand
Hosted by: Kasetsart University

ACPES49-Full

THE CONSIDERATION OF SPORT SPONSORSHIP OF LARGE PRIVATE COMPANIES IN THAILAND

Sorasak Chaisathapol,*[1] Chaipat Lawsirilat, [2] Achara Chandrachai, [3] Tatri Taifapoon [4]

[1] *Chulalongkorn University, 254 Pathumwan, Bangkok, 10330, Thailand*
[2] *Chulalongkorn University, 254 Pathumwan, Bangkok, 10330, Thailand*
[3] *Chulalongkorn University, 254 Pathumwan, Bangkok, 10330, Thailand*
[4] *Chulalongkorn University, 254 Pathumwan, Bangkok, 10330, Thailand*

Abstract

Today's marketing communications are an important part of building brand awareness, image of organization, products and services but with the current competitive environment of the business, the marketer has to adapt to the development of marketing communication strategy. The sports sponsorship strategy becoming another new way activities is a marketing communication strategy, an increasingly popular option for private sector organizations in Thailand. This study was aimed to study opinion the perspective of the private sector in each industry on what decisions and factors to consider and how different it is to consider sponsorship in sports? This study was a qualitative study with in-depth interviews with decision-makers from private sector organizations which compose of 3 business sectors in each industry and 7 private sector organizations. The interview data were has been analysis by means of methodological triangulation by examining the source of the document and expert interviews assemble to summarize by descriptive. The results show that the nature of each business industry considers different types of support in the type of sport, the level of sport activity and the type of sports Property considering the difference depends on the customer audience, exposure reach, distribution channel, competitive advantage, level of resource, investment required organization sport, event characteristic, hospitality opportunities, community association, partner relationship, and personal relationship, which results in image consistency and value for a different sponsor.

Keywords: sponsorship, type of sport, level of sport activity, sport property, image

ISBN 978-616-278-391-3

1. Introduction

Currently, marketing communications for consumer access for decision-makers in marketing communications in private sector enterprises can be considered in a variety of ways. The sponsorship of activities, whether it is sports activities, entertainment activities, cause activities, art activities, festivals, fairs and annual event activities, association and membership organization activities [3] from the type of activities mentioned above, marketers are used as intermediaries for marketing communication all of 6 types of sponsors which there are differences in the context of the right to communicate the target audience of their goods and services when there are want to sponsorship.So from six types of activities that are considered to be sponsors in marketing communication activities, the most popular activities are sports activities. From Figure 1, the proportion of entries to sponsorship North American events. It shows the proportion of the selection of sponsored activities by popular sports activities, representing 70% of all activities that are considered to consider marketing communication through activity as one of the channels for build corporate branding, products branding, or services branding.

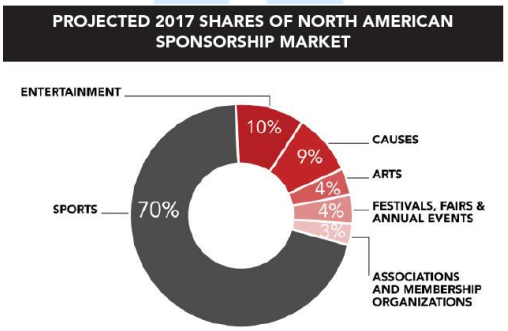


Figure 1 The proportion of entries of sponsorship in North America.

From Figure 2, the reports on growth of pay out for marketing communication through in advertising, promotion and sponsorship the activities of the whole world. It could be indicated the amount of pay for becoming a sponsor in sports activities, as the trend continues to grow.

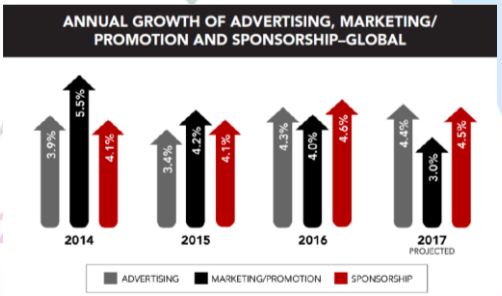


Figure 2 Growth of pay out for marketing communication through in advertising, promotion and sponsorship the activities of the whole world

ISBN 978-616-278-391-3

The future of Asia is likely to grow as a result of the popularity and increased attention of sports fan consumers, as can be seen in Figure 3. Shows the proportion of growth in the marketing communication strategies to consumers by region.

GLOBAL SPONSORSHIP SPENDING BY REGION

	2015 SPENDING	2016 SPENDING	INCREASE FROM 2015	2017 SPENDING (PROJECTED)	INCREASE FROM 2016 (PROJECTED)
EUROPE	$15.3 BILLION	$16 BILLION	4.6%	$16.7 BILLION	4.5%
ASIA PACIFIC	$14 BILLION	$14.8 BILLION	5.7%	$15.7 BILLION	5.8%
CENTRAL/SOUTH AMERICA	$4.3 BILLION	$4.4 BILLION	3.5%	$4.5 BILLION	3.4%
ALL OTHER COUNTRIES	$2.5 BILLION	$2.6 BILLION	3.4%	$2.7 BILLION	3.3%

Figure 3. Shows the proportion of growth in the marketing communication strategies to consumers by region.

From the reasons mentioned above, the researcher is interested in studying the growth trend of sponsorship participation in sport activities of private sector organizations in Thailand, which is likely to be considered as sponsors in sport activities and what are the different views? what are the benefits of becoming a sports sponsor?

2. Experimental Work

This study aims to study the opinions. View of private sector organizations in each industry. The study was based on a database of selected private business organizations from the Stock Exchange of Thailand and the Department of Business Development to select companies for consideration in the in-depth interview [13] that decision What factors to consider and how are the differences in consideration for being a sponsor in sporting events? This research is a qualitative study with in-depth interviews with executives who have decision-making power in the corporate sector into 3 business sectors each industry, 7 business enterprises. To become a sponsor of sports activities The interview data were analyzed by means of triangulation technique [12] by confirmations the source of the documents and interviewing experts to summarize by descriptive.

3. Results and Discussion

The results show that the characteristics of each industry of the business are considered different sponsor in Type of Sport, Level of Activates and Sports Properties [3] which considering the difference depends on the factors of customer audience, exposure reach, distribution chanel, competitive advantage, level of resource investment required, sport organization's reputation, event characteristic, hospitality opportunities, community association, partner relationship [1] [2] [5] [6] [7] [8] [9] [10] and the last factor for private business organizations in Thailand is the private sector, the likes of corporate executives or the decision-makers in budgeting is personal relationship that affects the image consistency and the value of being a different sponsor by becoming a sponsor of a business

entity, it is divided into two parts the opposite of which is the side of doing it for the sake of sport is a tool to show the social responsibility the other side is to do for the benefit of a full commercial engagement [3] [11]

So this will be a two way between each other in defining the way to communicate and choose to be a sponsor in the event that will be consistent with the type of sport, the level of activity, and sport properties.

4. Conclusions

Adoption strategies for sponsoring sports activities of private business organizations in Thailand is still there are principles to consider and choose to be a personal relationship and another reason is a benefit except private business organizations will use sports sponsorship in exactly commercial perspective.

References

[1] Barnard L. Mullin, Stephen Hardy, & William A Sutton. (2000). *Sport Marketing*. United States of Amarica: United Graphic, Inc.

[2] Greg P. Greenhalgh. (2010). *An examination of professional niche sport sponsorship : sponsors' objectives and selection criteria.* (Doctor of Philosophy), University of Louisville.

[3] Guy Masterman. (2007). *Sponsorship for a return on investment*. United Kingdom: Elsevier's Science & Technology.

[4] IEG Sponsorship Spending Report. (2017). *Sponsorship Spending Report Where the Dollars are going and Trends for 2017*. Retrieved from http://www.sponsorship.com/IEG/files/7f/7fd3bb31-2c81-4fe9-8f5d-1c9d7cab1232.pdf

[5] John L. Crompton. (2014). *Sponsorship fot Sport Managers*: West Virginia University.

[6] Lee, S., & Ross, S. D. (2012a). Sport sponsorship decision making in a global market. *Sport, Business and Management: An International Journal, 2*(2), 156-168.

[7] Margaret Johnston, & Neil Paulsen. (2007). *The Relative Importance of Sponsorship Selection Criteria : A Choice-Based Conjoint Study Using Hierarchical Bayes Analysis*. Paper presented at the The Australian and New Zealand Marketing Academy Conference 2007, New Zeland.

[8] Richard L. Irwin, William A. Sutton, & Larry M. McCarthy. (2008). *Sport promotion and sales management*. United States: Human Kinetics.

[9] Robert Copeland, Wendy Frisby, & Ron McCaville. (1996). Understanding the Sport Sponsorship Process From a Corporate Perspective. *Journal of Sport Management, 10*, 32-48.

[10] Smolianov, P., & Aiyeku, J. F. (2009). Corporate Marketing Objectives and Evaluation Measures for Integrated Television Advertising and Sports Event Sponsorships. *Journal of Promotion Management, 15*(1-2), 74-89.

[11] Wim Lagae. (2005). *Sport Sponsorship and Marketing Communication A European Perspective*. Amsterdam: Pearson Education.

[12] สุภางค์ จันทวานิช. (2559). การวิเคราะห์ข้อมูลในการวิจัยเชิงคุณภาพ. กรุงเทพมหานคร: สำนักพิมพ์แห่งจุฬาลงกรณ์มหาวิทยาลัย

[13] ตลาดหลักทรัพย์แห่งประเทศไทย. (2558). รายชื่อบริษัทที่จดทะเบียนอยู่ในตลาดหลักทรัพย์แห่งประเทศไทย Retrieved from http://www.set.or.th/th/company/companylist.html. http://www.set.or.th/th/company/companylist.html

ACPES 2017
The 3rd International Conference on Physical Education, Health and Sport
ASEAN Council of Physical Education and Sport
"Best Practice for ASEAN+ Community: Enhancing Physical Activity, Physical Education, Sport, Health and Recreation"
2 - 5 September 2017
Saen Palm Convention Hall, Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom,Thailand
Hosted by: Kasetsart University

ACPES53-Full

HEALTH HABITS AND LIFESTYLE OF GRADE 7 STUDENTS: EFFECTS ON THEIR ACADEMIC

Monera A. Salic-Hairulla*[1], Angel M. Bontilao[2], Fritzie R. Lacayanga[3], Norjaena P. Mudag[4], Joy Bagaloyos[5], Elvie. A. Paler [6].

[1 1, 2, 3,4,4,5] *College of Education, MSU-Iligan Institute of Technology, Iligan City, 9200, Philippines*
[6]*College of Nursing, MSU-Iligan Institute of Technology, Iligan City, 9200, Philippines*

Abstract

This paper aimed to determine the effects of age, sex, health habits and lifestyle of 205 grade 7 students to their academic performance. Correlation design method was used in this study. Results showed that there was a significant relationship of both the age and sex of the respondents with their academic performance. Furthermore, health habits; eating habits and hygiene had significant relationship with academic performance while physical activities did not. This implies that eating habits and hygiene affected academic performance. In terms of lifestyle; study habits had significant relationship with academic performance, however no significant relationship with sleeping habits and other related activities. This implies that the study habits of the learners affected their academic performance. Therefore, to boost learners' academic performance, it would be essential to give importance aspects such as study habits and lifestyles that could greatly affect the learners' academic performance.

Keywords: Academic Performance, Health Habits, Lifestyle

1. Introduction

Life is basically good. All over the world, people want to enjoy life. Unfortunately, Filipinos were found to be one of those Asian countries who have worst health habits, that is according to a new research from Sun Life Financial Asia. Yes, taking education could be a normal part of life but along the way challenges and difficulties are inevitable thus academic performance occupies a very important place in every Filipino's life, in fact considered a key criterion to judge one's total potentialities and capacities (Nuthana & Yenagi, 2009) usually detected by examination results.Several factors affect the academic performance of students: communication, learning facilities, proper guidance and family stress (Mustang and Khan, 2012) more so that the K-12 Curriculum is already implemented in the country with grade 7 students undergoing transition from grade school to junior high school. With such transition, students during this grade level

will be around the puberty age so the students may have big changes in their personal lives to include habits, lifestyle, social, and cognitive development which could be crucial to affect their academic performance.

Lifestyle, or the way of living could also influence academic performance most specially during difficult situations, like having finance problems, poverty, distance and location of their homes from school, even working while studying to provide for their basic needs in addition to academic responsibilities.

It was on this premise that this study was conceptualized and developed to identify the health habits and lifestyle of the randomly selected 106 grade 7 students of Iligan City National High School and 99 grade 7 students in Iligan City East National High School Sta. Filomena to investigate on the factors affecting academic performance.

STATEMENT OF THE PROBLEMS

This study was conducted to specifically answer the following questions: 1) What is the demographic profile of the grade 7 students in terms of age and sex; 2) What are the health habits of the grade 7 students in terms of: a. physical activities b. Eating habits c. Hygiene; 3) What kind of lifestyle do the grade 7 students have in terms of: a. sleeping habits b. study habits c. other related activities; 4) Is there a significance relationship between the demographic profile of the grade 7 students and academic performance?; 5) Is there a significant relationship between health habits and the lifestyle of the grade 7 students to their academic performance?

2. Experimental Work/Research Methodology

A total of 205 learners were randomly selected as the respondent of this study from the two schools of lligan City. Ninety nine (99 grade 7 learners from School A and one hundred six 106 from School B. The instrument used was a standardized questionnaire. The questionnaire has two parts: part 1 composed of the information about the learners' personal profile. The second part of the questionnaire contained information about the learners' health habits and lifestyles. The questions regarding health habits were divided into subtopics: eating habits, physical activities, and personal hygiene. Questions on life style were also divided into subtopics: sleeping habits, study habits and other activities. Correlation research design method was used in this study. Data gathering procedures were done step by step. A permission permit from the school superintendent was secured down to the principal, teachers concerned, students and parents. Correlation research design method was used to correlate the relationship between independent and dependent variables while random sampling method was used to gather the data from the respondents. Frequency and percentage Distribution, Mean, Pearson R Correlation Coefficient, Chi-square and scaling was also used in this study.

ISBN 978-616-278-391-3

3. Results and Discussion

Fifty three percent (53%) of the respondents were male and 47% were female. Age range is 11 to 17 years old. Most of the respondents were 13 years old. Seven percent (7%) of the respondents were advanced (having an average of 90 and above). Forty percent of them were proficient (having an average ranging from 85 to 89) and thirty-three percent of them were approaching proficiency (having an average ranging from 80 to 84). Sixteen percent of them were developing (having an average ranging from 75 to 79) and four percent needed improvement (having an average of 74 and below).

The respondents often participated in extracurricular activities, exercises at school early morning; enjoyed walking; found physical activities more enjoyable and self-engaging; involved and enjoyed in any sports; and did household chores. They sometimes did exercises at home; found physical activities tiresome; and walked to school. They always ate three times a day; ate breakfast before going to school; ate fruits, snacks; and drank much water. They often took vitamins; ate vegetables; cooked their meals; ate instant foods; ate junk foods, street foods; drank soda drinks, milk every day; and had regular bowel movement. They sometimes drank coffee every day.

They always took a bath in the morning after waking up; used soap and shampoo when taking a bath; washed their hands before and after doing activities; brushed their teeth; cut their nails when they already long; cleaned their ears; and changed clothes. They often used alcohol or hand sanitizer, sometimes took a bath before sleeping; never shared personal things with others. They often woke up early; turned lights off when going to sleep; enjoyed at least 8 hours of sleep at night. They sometimes had trouble waking up early; stayed up late at night; took naps during the day; felt sleepy, drowsy, and tired during the day; listened to music as they went to sleep; had trouble sleeping; and had interruptions during sleep.

They always preferred quiet place while studying; enjoyed reading, taking notes and reviewing them; took a break while studying for long hours; and had different styles of studying. They sometimes studied everyday less than 5 hours; used highlighters while reading, coded or mnemonic to memorize or understand phrases and never preferred noisy place while studying. They often played online games and liked working with other people. They sometimes felt stressed; always hang out with friends; but also liked working alone; missed the class because they got sick; took maintenance medicines; and had a job during free time. The respondents never smoked nor drink alcohol.

ISBN 978-616-278-391-3

4. Conclusions

1. There was a significant relationship between age and academic performance of the respondents.
2. There was a significant relationship between sex and academic performance of the respondents.
3. There was no significant relationship between physical activities and academic performance.
4. There was a significant relationship between eating habits and academic performance of the respondents
5. There was a significant relationship between hygiene and academic performance of the respondents.
6. There was no significant relationship between sleeping habits and academic performance.
7. There was a significant relationship between study habits and academic performance of the students.

References

[1] Alhajraf, N., Alasfour, A. (2014). The Impact of Demographic and Academic Characteristics on Academic Performance. Canadian Center of Science Education. Vol.7, No. 4.

[2] Benton D, Eur J Nutr. 2008; ILSI Europe a.i.s.b.l. The influence of children's diet on their cognitionAug;47(S3) Suppl 3:25–37. http://dx.doi.org/10.1007/s00394-008-3003-x pmid: 18683027.

[3] Chapman, Sed. (2015).What is the age range for students in middle school and high school in Japan? (2008). Fact sheet: Health risk behaviors and academic achievement. From:http://www.cdc.gov/healthyyouth/health_and_academics/pdf/health_riskbehaviors.pdf.

[4] Lowry R, Galuska DA, Fulton JE, Wechsler H, Kann L, Collins JL. (2000). Physical food choice, and weight management goals and practices among U.S. college students.American Journal of Preventive Medicine18(1):18-27

[5] Martínez-GómezD, Ruiz JR,Gómez-MartínezS,ChillónP, Rey-López JP, Díaz LE, VeigaOL, MarcosA, AVENA Study Group. (2011). Active commuting to school and cognitive performance in adolescents: The avena study. Arch Pediatr Adolesc Med. 165 (4): 300-305.

[6] NUTHANA, P. & YENAGI, G. (2009). INFLUENCE OF STUDYHABITS, SELF-CONCEPT ON ACADEMIC ACHIEVEMENT OF BOYS AND GIRLS. KARTANAKAJOURNAL OF AGRICULTURAL SCIENCE. VOL. 22, (5), 1135-1138.

ISBN 978-616-278-391-3

ACPES 2017
The 3rd International Conference on Physical Education, Health and Sport
ASEAN Council of Physical Education and Sport
"Best Practice for ASEAN+ Community: Enhancing Physical Activity, Physical Education, Sport, Health and Recreation"
2 - 5 September 2017
Saen Palm Convention Hall, Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom,Thailand
Hosted by: Kasetsart University

ACPES54-Full

FACTORS AND INTERESTS OF MSU-IIT COLLEGE OF EDUCATION ESGP-PASCHOLARS IN CHOOSING EDUCATION AS THEIR PREFERRED COURSE

Monera A. Salic-Hairulla[1], Ivy Coronel[2], Eljoy S. Mamintas[3], Mary Ann J. Patangan[4], Osuardo A. Pabatang Jr.[5], Rey A. Etom[6]

[1, 2, 3, 4, 5, 6] *College of Education, MSU-Iligan Institute of Technology, Iligan City, 9200, Philippines*

Abstract

This paper aimed to determine what factors and interest affect 3rd year ESGP-PA scholars' choice of Education course. Correlational method with non-random sampling method and the researcher-made questionnaire was utilized to gather the necessary data needed in the study. The questionnaire was completed by 85 3rd year ESGP-PA scholars from GEN-ED and just recently shifted to education course.

Furthermore, the findings showed that 3rd year ESGP-PA scholar is certain that they can avoid failure grade by which they will be able to maintain their scholarship and by the need of more teachers in their hometown as evidenced by the overall mean of 1.93. Also, they have high regard to the MSU-IIT College of Education and view the college as able to develop an individual's skills and capabilities as indicated by the overall mean of 2.19. The 3rd Year ESGP-PA scholar's decision had been moderately affected by their personal interest toward teaching profession as evidenced by the overall mean of 1.82. Their interest of choosing the career got the highest mean which means they took teaching profession according to their passion.

In terms of the significant relationship between the profile, factors, and interest, it was found out that a significant relationship existed between the religion, mother's occupation, parent's income and teacher. In addition, a significant relationship existed between the place they avail their scholarship and opportunity. However, no significant relationship was found between profile of the respondents and family. Moreover, no significant relationship existed between profile of the respondents and personal interest which means the respondent's choice was not based on their profile but on their personal interest.

Introduction

Education is considered to be the best solution to increase the economic stability of a country since it is as a prerequisite in getting a decent job in the market. But due to poverty, education has been neglected by some of the families and was given less priority for the reason that they lack the

capacity to finance the expenses that the children will incur in entering school.

Expanded Student's Grants-in-Aid Program for Poverty Alleviation (ESGP-PA) is a scholarship program of the national government which aims to alleviate poverty by increasing the number of graduates in higher education among poor household. These graduates will be employed in high-value added occupations in order for their families to be lifted out from poverty and at the same time contribute to national development.

The College of Education of the Mindanao State University- Iligan Institute of Technology (MSU-IIT) have ESGP-PA scholars and that this study is conducted to find the factors affecting their decisions and interest in selecting their current course.

Experimental Work

This study was conducted to specifically answer the following questions: 1) What is the profile of the respondent; 2) What are the factors that affect the respondent's in choosing education as their degree; 3) What are the interests of the respondents in choosing education as their degree; 4) Is there a significant relationship between the factors of the students in the selection of the degree and their profile; 5) Is there a significant relationship between the interest of the students in choosing education as their degree and their profile?

Correlation research design method was used to correlate the relationship between independent and moderating variables to dependent variables while purposive non-random sampling method was used to gather the data from the respondents.

Results and Discussion

Based on the data obtained in this study, the following are the results:

1. Majority of respondents live in the rural area which has the frequency of 47 or 55%.
2. Most of the respondents answered the questionnaire are female which has a frequency of 61 or 72%.
3. The largest group of respondents was found on the age bracket of 18 to 19 with a frequency of 45 or 53%.
4. Most of the 3rd year ESGP-PA scholars enrolled in MSU-IIT, College of Education are Roman Catholic that has a frequency of 49 or 58%.
5. Most of the respondents have a sibling that belongs to the bracket of 7 above with a frequency of 35 or 41%.
6. The father's occupation of the respondents is mostly farmers with a frequency of 26 or 31%.
7. Majority of the occupation of the respondent's mother is self-employed with a frequency of62 or percentage of 73.
8. The educational attainment of the respondents' father is mostly elementary level which has a frequency of 30 or 35%.

9. Majority their mother's educational attainment is high school level with a frequency of 42 or 49.41%.
10. Most of the respondents' parents monthly income yield within P10,000 and below with a frequency of 83 or 86%.
11. Most of the respondents which has a frequency of 58 or 68.24% have availed the ESGP-PA scholarship in their hometown and not in Iligan City
12. Having a frequency of 78 or 91.76%, it indicates that most of the respondents were chosen to avail the scholarship.
13. A frequency of 85 or 100% in their monthly allowance shows all of them are receiving P3,001-P3,500 every month.
14. Most of the respondents 'choice are moderately affected by their teachers and environment which have a total weighted mean of 1.94 and 2.17 respectively. The family peers and opportunity which has a total weighted mean of 2.66, 2.71 and 2.85 also affect the decision of the respondents.
15. The respondents' decision in choosing their preferred course was moderately affected by their personal interest that has a total weighted mean of 1.84. Most of them are highly affected by the statement "I want to experience the life as a teacher" with an average weighted mean of 1.54.
16. There was a significant relationship between peers, environment and opportunity with the place the respondents avail the scholarship that has a computed p value of 0.017, 0.028 and 0.033 which are lower than of the critical value 0.05.
17. There was significant relationship existed between the teacher as the factor and the religion and mother's occupation with a p value of 0.03 and 0.048 lower than the critical value.

4. Conclusions

Based on the findings derived from this study, the following conclusions were drawn:

There was no significant relationship between the interest and the profile of the respondents. The interest of the respondents was not influenced by their profile in choosing education as their preferred course.

The ESGP-PA Scholars' decision to choose education as their preferred course was moderately affected by the environment of the College of Education in MSU-IIT, the teacher and their own personal interest.

There was a significant relationship between the environment, opportunity, peers and the place the respondents' avail the scholarship.

There was a significant relationship between the teacher as the factor and the mother's occupation, parent's income and religion.

ISBN 978-616-278-391-3

Recommendations

Based on the findings and conclusions of the study, the following recommendations are hereby offered: 1) A seminar for the aspirant teachers in the College of Education shall be conducted in order to boost more their interest in the field of teaching; 2) The guidance counsellor together with the guidance counselling officers can conduct a lecture with a topic in relation to choosing the right peers who can help to enhance the respondents view about their course; 3) The College of Education should maintain or improve its conducive environment for learning and the teacher should encourage their students more; 4) Conduct a study again on this research using the same questionnaire however excluding the "undecided" option from the scale.

References

[1] Bedi, A. (2015, June). Choose a career that matches your personal interests. Retrieved from http://www.hindustantimes.com/education/ choose-a-career-that-matches-your-personal-interests/story-OYwh5L77vh2uuN7o2nK4tI.html. May 21, 2017.

[2] Borchert, M. (2002). Career choice factors of high school students. Retrieved from https://core.ac.uk/download/pdf/5066035.pdf .May 18, 2016

[3] Clark, N. (2015). World education news & reviews: Education in the Philippines. Retrieved from http://wenr.wes.org/2015/06/education-philippines

[4] JR Harris (1977).Peer group and career choice of secondary school students. Retrieved from http://nairaproject.com/projects/746.html. January 15, 2016

[5] Naz, A., Saeed, G., Khan, W., Khan, N., Sheikh, I., and Khan, N. (2014). Peer and friends and career decision making: A critical analysis. Retrieved Oct. 18, 2016 from http://www.idosi.org/mejsr/mejsr22(8)14/13.pdf.

[6] Niu and Tienda (forthcoming), Peer influences on college choices: New evidence from Texas. Retrived from http://theop.princeton.edu/ reports/wp/Fletcher_2010.pdf. January 15, 2016.

[7] Orbeta, Aniceto Jr.(2005). Poverty, vulnerability and family size: evidence from the Philippines. Retrieved May 23, 2017 from https://www.adb.org/sites/default/files/publication/157217/adbi-rp68.pdf.

[8] Pascual, Nancy (2014). Factors affecting high school student's career preference: A basis for career planning program. Retrieved Oct. 27, 2016 from http://www.urs.edu.ph/wp-content/uploads/2016/06/2261-4881-1-PB.pdf.

[9] Shumba, Almon and Naong, Matsidiso (2012). Factors influencing students' career choice and aspirations in South Africa. RetrievedJanuary 16, 2017 from https://pdfs.semanticscholar.org/887a/332400facffd4663329391 d8d15a2bb8c29c.pdf.

[10] Zins, J., Bloodworth, M., Weissberg, R., & Walberg, H. (2007, Dec. 5). The scientific base linking social and emotional learning to school success. Retrieved from http://www.tandfonline.com/doi/full/10.1080/10474410701413145?scroll=top&needAccess=true

ISBN 978-616-278-391-3

ACPES 2017
The 3rd International Conference on Physical Education, Health and Sport
ASEAN Council of Physical Education and Sport
"Best Practice for ASEAN+ Community: Enhancing Physical Activity, Physical Education, Sport, Health and Recreation"
2 - 5 September 2017
Saen Palm Convention Hall, Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom,Thailand
Hosted by: Kasetsart University

ACPES55-Full

PROBLEMS AND CHALLENGES ENCOUNTERED BY STUDENT TEACHERS OF MSU-IIT DURING PRACTICE TEACHING: BASIS FOR POLICY FORMULATION

Monera A. Salic Hairulla*[1], Jenevieve A. Tejero[2], Vincent N. Limbag[3], and Elesar V. Malicoban[4]

[1,2,3,4], College of Education, Mindanao State University – Iligan Institute of Technology, Iligan City, 9200 Lanao del Norte, Philippines.

Abstract

This study aimed to identify the problems and challenges faced by the one hundred randomly selected student teachers and figure out if the attitudes of the student teachers affect their performance during practice teaching. A mixed method research design was used in this study. A pre-assessment to the respondents was conducted. Results showed that student teachers showed a very satisfactory performance during their practice teaching which corresponds to their attitude that they possess a positive outlook during their practice teaching. It was also found out that the problem and challenge commonly encountered by most of the student teachers was resorting to their allowances to buy the materials needed for teaching. To address this problem, the student teachers suggested asking for an additional allowance from their parents in order to buy the materials needed. Moreover, there was a significant relationship between the attitude of the student teachers and their performance during practice teaching. This means that the performance of the student teachers was greatly affected by their attitude towards it.

The result calls for a need to provide allowance for student teachers like any other on-the-job-trainees do in order to solve this problem. In addition, it reminds the aspiring teachers to possess a right attitude toward practice teaching when they will become a student teacher such as: always attend to classes, accept criticism from the cooperating teacher, prepare the instructional materials or lesson plan, make an effort to make the class lively, vary the teaching strategy, never feel tired in dealing with the students, and talk with fellow student teachers about classroom instructions.

1. Introduction

Being a teacher is not easy. There are lots of things which other people expect from a teacher. Some of these expectations are met and some are not. Sometimes the teacher gets overwhelmed of the pressure coming from the people that surround them which make them find teaching as a challenging profession. Aside from these pressures, teachers also face challenges from their crucial role as the facilitator of learning and to other works related to teaching.

These challenges which most of the teachers face were already encountered during their practice teaching course. Practice teaching is the last course to take by aspiring teachers in the education

program and it is given at the very last semester of the curriculum. In practice teaching, the student teachers were given the chance to experience the real world of teaching and all the other related works of a teacher. Practice teaching course is the stage where the student teachers apply the arts or teaching and share their knowledge to the students. Beginning practice teachers usually anticipate the expected problems and challenges as they begin to teach but there are instances were unexpected challenges arise. As a result, they don't know what to do and how to solve such problem. It is very important that a teacher, before he/she starts to teach, must be aware of all the problems and challenges that he/she will encounter so that he/she will know the necessary measures to apply whenever he/she face it.

Statement of the Problem

Teachers normally face a lot of problems most especially related to school and it is very helpful for them to solve or somehow lessen these problems and challenges in order to teach more efficiently. In line with this, this study sought to answer the following questions: (1) What is the rating performance of the student teachers during their practice teaching?; (2) What are the attitudes of the student teachers towards practice teaching?; (3) What are the problems and challenges encountered by practice teachers?; (4) What are the suggestions of practice teachers to solve these problems and how to manage these challenges?; and (5) Is there a significant relationship between the attitude of practice teachers and their performance during practice teaching?

2. Experimental Work/Research Methodology

A pre-assessment was done before the researchers constructed the questionnaire as an instrument in the collection of data. The researchers approached the prospect respondents and asked for the different problems and challenges they encountered during their practice teaching. Then the collected information was used as a basis in the construction of the questionnaire. After the questionnaire was constructed it was validated by experts and tested the reliability. After revising the questionnaires based on the result on validation, and reliability, it was distributed to one hundred preservice teachers.

3. Results and Discussion

The result of the rating performance of the student teachers showed that they are performing well during their practice teaching with very satisfactory rating. This implies that most of the student teachers showed a very satisfactory performance during their practice teaching.

As to the attitudes of the student teachers towards practice teaching, most of them disagreed with the negative attitudes. This means that the student teachers showed positive attitude towards practice teaching such as always attend to classes, accept criticism from the cooperating teacher, prepare the instructional materials or lesson plan, and make an effort to make the class lively, vary the teaching strategy, never feel tired in dealing with the students, and talk with fellow student teachers about classroom instructions.

Among the problems and challenges encountered by the student teachers, resorting to personal money to buy materials needed for teaching is ranked as the number one problem and challenge by most of the

student teachers. Followed by the difficulty in making motivational techniques, failure to strategize the lessons, and the problem of the students not paying attention during classes. These are the main problems and challenges encountered by the student teachers during their practice teaching. It was also found out that the student teachers has no problems and challenges faced when it comes to their cooperating teacher in helping them improve their teaching skills which got the last in rank of the problems and challenges encountered.

In order to solve the problem, about eighty two percent of the student teachers suggested to ask their parents for an additional allowance to buy the needed instructional materials and the remaining eighteen percent does not favour the suggestion. May be they have enough money to spend for the necessary expenses. There are seventy four percent suggested to ask help from their fellow student teachers if they have difficulty in making motivational techniques. And there are seventy four percent suggested to ask help from their cooperating teacher once they can no longer vary their teaching strategy. The remaining twenty six percent have another suggestion or ways to manage this problem.

4. Conclusion

Among the many problems and challenges presented, the number one that most of the student teachers faced is resorting to personal money to buy materials needed for teaching. To address this problem, there's no one they can easily turn to but to ask for an additional allowance from their parents in order to buy the materials needed as they suggested. Since p-value is less than level of significance, it was found out that there was a significant relationship between the attitude of the student teachers and their performance during their practice teaching which implies that the performance of the practice teachers during practice teaching was affected by their attitude. Thus the results of this study can be a basis for policy formulation regarding practice teaching. A cooperating school where the student teachers assigned may provide an allowance to help the student teachers in purchasing their instructional materials and other expenses related to their practice teaching.

5. References

Abedalaziz, N. A., Al Harthy, S. S. H., & Jamaluddin,S. (2013). Teachers' Attitudes and Performance: An Analysis of Effects Due to Teaching Experience. International Interdisciplinary Journal of Education –Volume 2, Issue 9.

Abongdia, J. F. A., Adu, E. O., & Foncha, J. W. (2015). Challenges Encountered by Student Teachers in Teaching English Language during Teaching Practice in East London, South Africa. Int J Edu Sci, 9(2): 127-134.

Adebule, S. O., & Oluwatayo, J. A. (2012). Assessment of Teaching Performance of Student-teachers on Teaching Practice. International Education Studies; Vol. 5, No. 5; 2012

ISBN 978-616-278-391-3

Akkus, O. (2010). Teachers' Burnout Levels and their Attitudes Towards Teaching Profession. Retrieved: December 2016 from http://www.iijoe.org/v2/IIJOE_04_09_02_2013.pdf

Ajayi, O.A. (2010). Teaching Practice Variables as Predictors of Attitude of Biology Teachers – Trainees to School Work. Journal of Research in National Development, 8(1), 1 – 8.

Bader, E. J. (2012). Public School Teachers Spend Billions of Their Own Funds on Student Needs. Retrieved: December 2016 from http://www.truth-out.org/news/item/12504-public-school-teachers-spend-billions-of- their-own-money-on-student-needs

Briers, G.E., Edwards, M. C., & Harlin, J. F. (2002). A Comparison of Student Teachers'Perceptions of Important Elements of the Student Teaching Experience Before and After Completing an 11-week Field Experience. Journal of Agricultural Education, 43(3), 72-83.

Childs, A., & McNicholl, J. (2007). Science Teachers Teaching Outside of Subject Specialism: Challenges, Strategies Adopted and Implications for Initial Teacher Education. Teacher Development, 11(1), 1-20.

Chung, J. (2002). Developing Teaching Strategies Through Quality Feedback. Retrieved: December 2016 from http://www.leeds.ac.uk/educol/documents/00002297.htm

Creemers, B. P., & Kyriakides, L. (2006). Critical Analysis of the Current Approaches to Modelling Educational Effectiveness: The Importance of Establishing a Dynamic Model. School Effectiveness and School Improvement, (3), 347-366.

Creneti, J. (2012). Types of Teaching Aids. Retrieved: December 2016 from http://www.ehow.com.

Griofa M. O., & Ruairc, T. O. (2013). Guidelines on School Placement. The Teaching Council, An Chomhair le Mhuinteoireachta. Retrieved: December 2016 from http.//www.aahe.org/technology/ehrmann.htm

Kamau, M. J. (2013). Challenges Facing Teachers and Students in the Process of Teaching and Learning Kiswahili in Public Secondary Schools in Kiambu District in Kiambu County, Kenya. Reg. No. E55/10264/08.

Kind, V. (2009). A Conflict in your Head: An Exploration of Trainee Science Teachers' Subject Matter Knowledge Development and its Impact on Teacher Self-Confidence. International Journal of Science Education, 31 (11), 1529-1562.

Laruan, M. J. (2006). Problems of Student Teachers. The Modern Teacher, Vol. LV, No.1.

Mizzi, D. (2013). The Challenges Faced by Science Teachers when Teaching Outside their Specific Science Specialism. Acta Didactica Napocensia. Volume 6, Number 4.

Ogundipe, M.A. (2002). A Review of the Training of Professional Teachers in Nigeria and the Challenges before the Nigeria Universities. Journal of Applied Education and Vocational Research, 1(1), 35 – 38.

Oluwatayo, J. A., & Adebule, S. O. (2012). Assessment of Teaching Performance of Student-teachers on Teaching Practice. Published by Canadian Center of Science and Education. University of Ekiti State, Ado-Ekiti, Nigeria.-OWN-MONEY-ON-STUDENT-NEEDS

Pollard, A. (2006). Reflective teaching. 2nd edition. Continuum. The Tower Building, 11 York, London SE1 7NX.

ISBN 978-616-278-391-3

ACPES 2017
The 3rd International Conference on Physical Education, Health and Sport
ASEAN Council of Physical Education and Sport
"Best Practice for ASEAN+ Community: Enhancing Physical Activity, Physical Education, Sport, Health and Recreation"
2 - 5 September 2017
Saen Palm Convention Hall, Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom,Thailand
Hosted by: Kasetsart University

ACPES58-**Full**

LEARNERS' PERSPECTIVE ON MULTICULTURAL EDUCATION COMPONENTS

Josefina M. Tabudlong, Ph.D.

Faculty, Department of Professional Education, College of Education
Mindanao State University-Iligan Institute of Technology
Iligan City, Philippines

Abstract

This studyinvestigated the learners' perspective of multiculturaleducation components. Variables werecomposed of the essential components of curriculum such as communityresources, teachers' competencies, learningassessmentstrategies, language use and classroom practices and instructional technologies to enhancemulticulturaleducation. The informants of thisstudycomprised 229 studentschosenthroughpurposivesamplingwithconsideration of theirdiversity in demographic and cultural background. Qualitative approachwasemployedutilizing open-ended questionnaire and focus-group discussion as data collection instruments. It made use of content analysis as the tool for data analysis and interpretation.Curricular components such as community-based resources, teachers' competencies, learning assessments, language use, classroom practices and technologies are essential for the implementation of multicultural education. Exposure and utilization of community-based resources guided through collaborative management of the school and community leaders can widen the learners' understanding of their cultural environment. The effectiveness of the teaching and learning process would still depend on the teachers' competencies shown through cultural sensitivity and responsiveness. A variety of learning assessment techniques involving tests, individual activities and collaborative performances are needed to apply theories, exercise learners' skills and enable them to relate with people. Language preferred is English as a global means of communication but mother-tongue can still be utilized to highlight meaning. Classroom practices that are expository, interactive and encouraging cohesiveness are appropriate to strengthen cultural understanding. The university has been implementingmulticulturaleducationapproach in itscurricularofferings and co-curricular programs.

Keywords: components, curriculum,diversity, multicultural, education, perspective

1. Introduction

Societies are characterized by diversity of cultures. Consequently, exchange of cultural traits among the population is inevitable serving to enhance the groups' learning process. Such co-existence of diverse cultures is the basis for the evolution of the concept of multiculturalism. It indicates variations and interaction of cultures and the need for society's policy of equal treatment in the public arena (Bharath

Kumar, 2014). In the educational system, multiculturalism is realizedby providing multicultural education among its constituents. According to Banks (1989), multicultural education is a concept, an educational reform movement and a process. It assumes that schools need to create equal educational opportunities to learn for the diverse ethnic and social groups (Banks, 2010).

Philippines is a multicultural society with its distinct 171 ethnolinguistic and indigenous groups. Mindanao as the second largest island is inhabited by 13 Islamized ethnolinguistic groups and 18 non-Muslim indigenous tribes (ADB, 2002).Universities in Mindanao are host to various students representing different cultures. Thus, diversity characterizes the clientele of most schools in the region. It then becomes imperative for teachers to deal properly with students from diverse groups.

Studies on multiculturalism and multicultural education have presented interrelated perspectives but there is no agreed definition of multiculturalism and multicultural education among scholars and practitioners (Özturgut, 2011). Further explorations and discussion on such phenomena are in progress and could contribute to the significance of application to improve the practice of multicultural education. This study seeks to add the understanding of multicultural education framework based on the views of the learners. The findings can enlighten the school leaders in their decision-making as regards the current quest of providing relevant education to the learners.

2. Experimental Work

This study investigated the learners' perspective of multicultural education components based on the curricular content of the course 'Social Dimensions of Education' with multiculturalism and multicultural education in its scope. Variables were composed of the essential components of curriculum framework such as community resources, teachers' competencies, learning assessment strategies, language use and classroom practices and instructional technologies to enhance multicultural education. Informants of this study comprised 229 students. Purposive sampling was done in consideration of the diversity of informants' demographic and cultural background. One hundred fifty nine (159) of them were female and seventy (70) were male. There were two hundred four (204) Christians and twenty-five (25) Muslims. Majority were speakers of Visayan language at home. Muslim informants represented Maranao and Maguindanao ethnicity.Qualitative approach was employed utilizing open-ended questionnaire and focus-group discussion as data collection instruments. It made use of content analysis as tool for data analysis and interpretation.

3. Results and Discussion

The learners' responses focused on the curricular components necessary for the effective implementation of multicultural education. These are: community resources, teachers' competencies, learning assessment strategies, language use, classroom practices and instructional technologies to enhance multicultural education.

ISBN 978-616-278-391-3

Community-Based Resources

Informants believed that community-based resources are neededfor the implementation of multicultural education. These are classified as human, material or environmental and cultural. Human resources include families, organizations, officials and leaders. The role of parents in school is significant. Learners' supportive parents and harmonious family relations contribute a lot to their learning process and foster positive disposition and relationships. Community organizations such as the Parent-Teacher-Community Association (PTCA), local government officials and leaders in the community provide assistance in the maintenance of school surroundings, buildings, facilities and equipment.

Material or environmental resources cover natural and historical landmarks, libraries and museums available in the locality. Natural resources such as waterfalls, lakes, mountains or existence of distinctive plants and animals are rich source of information to widen students' social awareness.This develops their appreciation and care for the environment. Historical landmarks, libraries, museums and other cultural heritage help the students discover their own ethnic origin and foster understanding of their identities. Cultural resources distinctively refer to the local traditions, beliefs and practices of the people. By getting acquainted with them, the students will be able to develop positive attitudes toward people and their culture.

Teachers' Competencies

Teachers were viewed as facilitators of smooth implementation of multicultural education in school. They need to possess mastery of subject matter and broad understanding of culture, communication proficiency, classroom management skills, mastery of teaching strategies and facilitating skills, as well as positive attitudes and values manifested through cultural sensitivity and responsiveness. Broad understanding of culture can help them connect the lessons with their own life conditions and aspirations. Learners expected the teachers to be well-acquainted with their cultural traits and traditions in proper perspective, without judging or criticizing it. They liked teachers who give a positive image of the learners' culture and showing equitable treatment.

Learning Assessments

Informants viewed learning assessment techniques important to promote multicultural education through written tests, interactive and collaborative activities, cultural exhibits, community integration and action research. Written tests facilitate long term retention of concepts learned. Interactive and collaborative activities such as group discussion and report, projects, collage making, writing reflection, and other related strategies are also considered effective methods of assessment of students' learning. Cultural exhibits, community integration such as field trip, immersion and action research are opportunities to apply theories and concepts they have learned. These motivate learners to exercise their skills and competencies in relating with people in the community.

ISBN 978-616-278-391-3

Language Use

Learners preferred English as the predominant language in a multicultural classroom since it is a globally accepted language and the medium of instruction in Philippine schools. Students no matter how diverse their background still acknowledge English as the medium of instruction in the classroom. They are willing to learn and speak it. However, they expressed that there are times they have to be allowed to speak in Filipino as the national language, and Visayan as widely spoken in Mindanao. Students coming from ethnic groups can also be considerably allowed to use their own language as long as understanding can be promoted in the classroom. This means that code switching can be done to some extent as long as the students can express their own thoughts and ideas; and they can understand the subject matter more effectively. Since English remains largely as the medium of instruction in schools, students have to use English to observe national and global standards.

Classroom Practices and Technologies EnhancingMulticultural Education

Responses on this question were categorized into classroom practices such as expository approach, group interaction, building cohesiveness, and immersion activities. Expository approach can emphasize the giving of information and student's individual participation. Oral recitation, lecture, brainstorming, individual reporting, film showing, and open forum helped them acquire healthy self-concepts and broad understanding of their surroundings.

Group interaction promoted participation, such as: debate, group discussion with reporting, role play, talk show simulation, newscasting, group project, group study as well as group sharing of actual experiences. These were regularly done in their classes and allowed them to develop confidence in communication.

Building cohesiveness refers to the behavior of both teachers and learners manifesting positive values and bonding. Learners viewed cohesiveness is enhanced by being respectful to one's culture, showing fair or equitable treatment, having a prayer at the start of class, listening to one another's opinion, speaking a common language, teacher's consideration to student's valid excuse, instilling discipline. Learners suggested having acquaintance parties and cultural programs where ecumenical prayers are done. They also expected teachers to give grades fairly and to accommodate them in class regardless of their background, culture and religion.

Immersion activities are viewed as opportunities to relate theories with actual conditions and apply learned skills. Among these techniques are research on cultural and educational practices, field trip, field study, student teaching activity, visit to other institutions, organizing symposia and seminars, and community extension activities. These have supplemented classroom discussion and exposed them to actual multicultural encounter.

ISBN 978-616-278-391-3

Learners highlighted the university practices promoting multiculturalism such as offering of curricular courses focusing on diverse cultures of Mindanao, recognizing holidays of Islam and Christianity, and having regular competition in sports and cultural events.

Approaches to multicultural education stipulated by Banks (1995) were found to be implemented in MSU-IIT particularly the "Additive Approach" done through the offering of subjects such as History 3 - History of Minsupala, dealing with the origin and cultures of the tri-people of Mindanao; CITE 101 - Teaching Indigenous Peoples and other related subjects where knowledge about cultures is integrated. Banks' "Contribution Approach" (Banks, 1995) was also emphasized in the university's practice such as the recognition of holidays of Islam and Christianity and the celebration of special holidays for national heroes.

Multicultural education is perceived to be enhanced more in interactive classroom through ICT integration. Instructional technology promotes multiculturalism since learners can acquire information from other cultures through the Internet. They can also develop higher order thinking skills and foster friendship as they engage in interactive exchange of information with other people through social media.The classroom is seen as a place where they are welcome and treated humanely; where their unique talents and intelligences are given equal opportunities to develop.

4. Conclusions

Curricular components such as community-based resources, teachers' competencies, learning assessments, language use, classroom practices and technologies are essential for the implementation of multicultural education. Exposure and utilization of community-based resources guided through collaborative management of the school and community leaders can widen the learners' understanding of their cultural environment. The effectiveness of the teaching and learning process would still depend on the teachers' competencies shown through cultural sensitivity and responsiveness. A variety of learning assessment techniques involving tests, individual activities and collaborative performances are needed to apply theories, exercise learners' skills and enable them to relate with people. Language preferred is English as a global means of communication but mother-tongue can still be utilized to highlight meaning. Classroom practices that are expository, interactive and encouraging cohesiveness are appropriate to strengthen cultural understanding. The university has been implementing multicultural education approach in its curricular offerings and co-curricular programs.

References:

ADB (2002) Indigenous Peoples/Ethnic Minorities and Poverty Reduction. Philippines: Asian Development Bank. ISBN: 971-561-442-6 https://www.adb.org/sites/default/files/publication/28025/indigenous-peoples-philippines.pdf

Bharath Kumar, Sreelekha Mishra, C. (September 2014) *"Understanding Diversity: A Multicultural Perspective,"* IOSR Journal of Humanities and Social Sciences (IOSR-JHSS) Volum 19, Issue 9, Ver. IV, pp 62-66 e_ISSN: 2279-0837, p_ISSN: 2279-0845. www.iosrjournals.org

Banks, James A. (1989) *"Approaches to Multicultural Curriculum Reform,"* Trotter Review: Vol.3: Iss.3, Article 5. http:// schoolworks.umbd.edu/trotter_review/vol3/iss3/5

Banks, James. A. and McGee Banks, Cherry A. (2010) Multicultural Education Issues and Perspectives. 7th Edition USA: John Wiley & Sons, Inc. https://www.slideshare.net/mariaferc/0470483288multicul

Özturgut, Osman (2011) *"Understanding Multicultural Education,"* Current Issues in Education Volume 14, Number 2 August 7, 2011 ISSN: 1099-839X USA: Arizona State University Mary Lou Fulton Teachers College. https://cie.asu.edu/ojs/index.php/cieatasu/article/viewFile/732/225

ACPES
ASEAN Council of Physical Education and Sport
2-5 September 2017
Saen Palm Conventiona Hall
Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom, Thailand
ISBN 978-616-278-391-3

ACPES 2017
The 3rd International Conference on Physical Education, Health and Sport
ASEAN Council of Physical Education and Sport
"Best Practice for ASEAN+ Community: Enhancing Physical Activity, Physical Education, Sport, Health and Recreation"
2 - 5 September 2017
Saen Palm Convention Hall, Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom,Thailand
Hosted by: Kasetsart University

ACPES62-Full

ASSOCIATION BETWEEN BREAKFAST HABITS, TIME MANAGEMENT LEVEL AND PHYSICAL ACTIVITY LEVEL AMONG SPORTS SCIENCE STUDENTS

Mohamad Hisyam Izzuddin Bin Mohamed Ishak1, Razali Bin Mohammed Salleh2

1,2Faculty of Sports Science and Recreation, Universiti Teknologi MARA, Shah Alam, 40450 MALAYSIA

Abstract

Breakfast is considered as the most important meal of the day. However, there are still evidence of individuals who skip breakfast. The purpose of this study was to determine the association between breakfast habits, physical activity level and time management level among sports science students. A total of 50 students participated in this study. The study shows no correlation between breakfast habits and time management level among respondents. However, there were a significant relationship between breakfast habits and physical activity level ($r = 0.251$, $p = 0.039$); and between time management level and physical activity level ($r = -0.311$, $p = 0.014$). In conclusion, breakfast could prove important factor in increasing physical activity level. Extra work that examines the association between physical activity and breakfast utilization and between physical activity and other dietary practices could be significant for illuminating physical action advancement intervention. Time management level still proved to be an important factor in influencing physical activity level, however further investigation was needed in relation to breakfast habits.

Keywords: Breakfast, physical activity, time management, university students

1. Introduction

Breakfast is the most important meal of the day (Arora, Nazar, Gupta, Perry, Reddy, & Stigler, 2012). Breakfast is the first meal of the day to break the fast after a long sleep and eat within 2 to 3 hours after waking. Eating breakfast has many benefits which is related to cognitive performance (Hoyland, Dye, & Lawton, 2009; Widenhorn-Müller, Hille, Klenk, & Weiland, 2008) and a healthy lifestyle (Widenhorn-Müller et al., 2008). The benefits of healthy lifestyles were associated with nutrient intake, nutritional quality and weight management (Dubois, Girard, Kent, Farmer, & Tatone-Tokuda, 2009).

A study by Corder, Van Sluijs, Ridgway, Steele, Prynne, Stephen et al. (2014) showed that people that practice a balanced diet demonstrated to have a higher level of physical activity. This also being supported by Veitch, Abbott, Kaczynski, Stanis, Besenyi, and Lamb (2016), when people with imbalanced diet practice will show poor lifestyle with high sedentary activities. Since breakfast is part of a good eating habits (Howden, Chong, Leung, Rabuco, Sakamoto, Tchai et al., 1993), it is important to determine whether breakfast taking practices is related to a good level of physical activity.

ISBN 978-616-278-391-3

Breakfast habits can also be related to time management if breakfast time is considered as an important time to spent. According to Arora et al., (2012), people should spend their time for breakfast because breakfast is the most important meal of the day. Poor dietary habits is a public health problem, especially among young adults who are experiencing the transition to university life (Nelson, Story, Larson, NeumarkSztainer, & Lytle, 2008). Pressure in the university life and the burden of work and assignment becomes one of the negative factors that affect their diet and unhealthy lifestyle (Mikolajczyk, El Ansari, & Maxwell, 2009).

Effective time management was one of the methods that would influence the breakfast habits of individuals but previous studies mostly did not focus on this factor (Story, Neumark-Sztainer, & French, 2002). In addition, eating breakfast regularly was also associated in higher level of physical activity (Corder, Van Sluijs, Steele, Stephen, Dunn, Bamber et al., 2011; Sandercock, Voss, & Dye, 2010). Thus, its importance in contributing individuals to a healthy lifestyle.

Based on the view of the problem stated above, therefore, the purpose of this study was to determine the association between breakfast habits, physical activity level and time management among sports science students.

2. Experimental Work

This study used a cross-sectional design. This is due to determine the relationship between two or more variables of the groups through questionnaires. A total of 50 full time students from Bachelor of Sports Science courses were the respondents of this study. The sample size was computed using the G-Power (version 3.1) software. This software was used due to the convincing method because of its output that uses not only by type of statistical analysis, but also with graphs (Faul, Erdfelder, Buchner, & Lang, 2009).

Three types of questionnaires were used in this study. Breakfast habits questionnaire, time management level questionnaire and physical activity level questionnaire. A 14-items of Student Breakfast Attitude Questionnaire was used for this study. This questionnaire was adopted from Ohio Department of Education and Tapper, Murphy, Lynch, Clark, Moore, and Moore (2008) ‘s study. Time Management Self-Assessment scale was used to assess students' time management level was adopted from Power Over Time: Student Success with Time Management, Joan Fleet & Denise Reaume, 1994. Harcourt Brace, Canada. The Global Physical Activity Level Questionnaires (GPAQ) was used in this study. This questionnaire comprises of 16-items. This questionnaire was adopted form world health organization database. The reason for this questionnaire was to decide the level of physical activity that can be utilized to get similar information on health–related physical activity.

3. Results and Discussion

Pearson correlation test was used in this study to determine the strength of relationship between pair variables when one variable could logically have influenced by the other. Table 7 showed the result of a Pearson correlation test in this study.

ISBN 978-616-278-391-3

Table 1: Association Between Breakfast Habits, Time Management Level and Physical Activity Level

	Time Management Level		Physical Activity Level	
	R	Sig.	r	Sig.
Breakfast Habits	.067	.323	.251	.039
Time Management Level			-.311	.014

Note: n=50

There was no significant correlation between breakfast habits and time management level in this study (r = .067, p = .323). However, there was a positive weak correlation between breakfast habits and physical activity level (r = .251, p = .039). There was also a negative correlation between time management level and physical activity level in this study (r = -.311, p = .014).

This explained that students who does a positive breakfast habits do not influence by their time management skill's level. Students who used time effectively does not contribute to the positive breakfast habits. When analysing the frequency between both breakfast habits and time management levels, the distribution score for breakfast habits was result to more negative attitude. Time management level also showed the result to a less effective used of time. This result showed that increase in a positive habits of eating breakfast does not cause an increase in the effectiveness of managing time. This means that there are other factors that influenced the habits of taking breakfast among students.

This means that an increase in breakfast habits showed the same increase in physical activity level. Students who is taking breakfast were also involved in physical activity regularly. This study answered the objective in eating breakfast regularly will help influenced individual involvement in physical activity. Sports science courses were equipped with nutrition classes and physical education course which educated the student on the importance of breakfast and physical activity. This is because students who compete in the competition need regular training and good fitness level, thus their physical activity level were monitored regularly. Regardless to the fact that the student may be already physically active, there is a chance that nutritional knowledge plays its role in this study. Students athletes must also plan their meal and diet accordingly to sustain and cope with the demand of sport and training.

Our finding in this study showed an increase in time management levels will result in the decrease in physical activity level. Students with good management skill somehow does not participate in physical activity and vice versa. This finding showed an interesting view on the time management influenced on physical activity. The main reasons which result with such finding were respondent involved in sports were already exceed beyond the recommended level of physical activity. These respondents involved in physical activity were not because of the desire to promote health but to compete in respective sports, enhanced performance and to win competition. The crucial factor contributes to these findings were the involvement of too much time in physical activity and sports.

Since the respondents in this study were a full-time student, it can a constraint to balance the time between sport and study. Too much time in physical activity could result in jeopardizing the academic performance, but too focus on the academic will turn us to be more sedentary. A balance between academic and physical activity were important to achieve a healthy lifestyle.

4. Conclusions

In conclusion, there was no association between breakfast habits and time management level. However, there was an association between breakfast habits and physical activity level and an association between time management level and physical activity level. Our findings recommended that breakfast could demonstrate essential consider expanding physical movement level. Extra work that examines the relationship between physical activity and breakfast utilization and between physical activity and other dietary practices could be significant for illuminating physical action advancement mediation. Time management level still proved to be an important factor in influencing physical activity level, however further investigation was needed in relation with breakfast habits.

References

[1] Arora, M., Nazar, G. P., Gupta, V. K., Perry, C. L., Reddy, K. S., & Stigler, M. H. (2012). Association of breakfast intake with obesity, dietary and physical activity behavior among urban school-aged adolescents in delhi, india: Results of a cross-sectional study. *BMC Public Health, 12*(1), 881.

[2] Hoyland, A., Dye, L., & Lawton, C. L. (2009). A systematic review of the effect of breakfast on the cognitive performance of children and adolescents. Nutrition Research Reviews, 22(2), 220.

[3] Widenhorn-Müller, K., Hille, K., Klenk, J., & Weiland, U. (2008). Influence of having breakfast on cognitive performance and mood in 13-to 20-year-old high school students: Results of a crossover trial. Pediatrics, 122(2), 279-284.

[4] Dubois, L., Girard, M., Kent, M. P., Farmer, A., & Tatone-Tokuda, F. (2009). Breakfast skipping is associated with differences in meal patterns, macronutrient intakes and overweight among pre-school children. Public Health Nutrition, 12(01), 1928.

[5] Corder, K., Van Sluijs, E. M., Ridgway, C. L., Steele, R. M., Prynne, C. J., Stephen, A. M., et al. (2014). Breakfast consumption and physical activity in adolescents: Daily associations and hourly patterns. The American Journal of Clinical Nutrition, 99(2), 361-368.

[6] Veitch, J., Abbott, G., Kaczynski, A. T., Stanis, S. a. W., Besenyi, G. M., & Lamb, K. E. (2016). Park availability and physical activity, tv time, and overweight and obesity among women: Findings from Australia and the United States. Health & Place, 38, 96-102.

[7] Howden, J., Chong, Y., Leung, S., Rabuco, L., Sakamoto, M., Tchai, B., et al. (1993). Breakfast practices in the asian region. Asia Pacific Journal of Clinical Nutrition, 2, 77-84.

[8] Nelson, M. C., Story, M., Larson, N. I., Neumark-Sztainer, D., & Lytle, L. A. (2008). Emerging adulthood and college-aged youth: An overlooked age for weightrelated behavior change. Obesity, 16(10), 2205-2211.

[9] Mikolajczyk, R. T., El Ansari, W., & Maxwell, A. E. (2009). Food consumption frequency and perceived stress and depressive symptoms among students in three european countries. Nutrition Journal, 8(1), 1.

[10] Story, M., Neumark-Sztainer, D., & French, S. (2002). Individual and environmental influences on adolescent eating behaviors. Journal of the American Dietetic Association, 102(3), S40-S51.

[11] Sandercock, G., Voss, C., & Dye, L. (2010). Associations between habitual school-day breakfast consumption, body mass index, physical activity and cardiorespiratory fitness in english schoolchildren. European Journal of Clinical Nutrition, 64(10), 1086-1092.

[12] Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2009). Statistical power analyses using G-Power 3.1: Tests for correlation and regression analyses. Behavior Research Methods, 41(4), 1149-1160.

[13] Tapper, K., Murphy, S., Lynch, R., Clark, R., Moore, G., & Moore, L. (2008). Development of a scale to measure 9–11-year-olds' attitudes towards breakfast. European Journal of Clinical Nutrition, 62(4), 511-518.

ACPES
ASEAN Council of Physical Education and Sport
2-5 September 2017
Saen Palm Conventiona Hall
Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom, Thailand
ISBN 978-616-278-391-3

ACPES 2017
The 3rd International Conference on Physical Education, Health and Sport
ASEAN Council of Physical Education and Sport
"Best Practice for ASEAN+ Community: Enhancing Physical Activity, Physical Education, Sport, Health and Recreation"
2 - 5 September 2017
Saen Palm Convention Hall, Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom,Thailand
Hosted by: Kasetsart University

ACPES 63-Full

MENTORING MODEL WITH BREASTFEEDING MOTIVATOR TO INCREASE EXCLUSIVE BREASTFEEDING DURATION AND COVERAGE IN KENDAL, INDONESIA

Mardiana[1], and Lukman Fauzi[2]

[1,2,3] *Public Health Science Department, Universitas Negeri Semarang (UNNES), F5 Building Sekaran Campus Semarang City Central Java Province, 50229, Indonesia*

ABSTRACT

Exclusive breastfeeding coverage in Kendal District was still below the minimum service standard, although there was a significant increase from 22.9% (2015) to 47.8% (2016). Ngabean Village is one of the villages in urban area of Kendal which needs health intervention, such as exclusive breastfeeding. Breastfeeding motivator is a community-based group that provides assistance to mothers to breastfeed their babies. The aim of this study was to determine the effectiveness of mentoring model with breastfeeding motivator to the exclusive breastfeeding duration and coverage. This study was quasi-experiment, with a posttest only control group design. The intervention in this study was mentoring model with breastfeeding motivator. Measurement was done in day 1 to 30 after intervention. The study was conducted in 2 villages, Ngabean Village as experiment group (30 breastfeeding mothers with intervention) and Kliris Village as control (30 breastfeeding mothers without intervention). The collected data were analyzed by survival analysis using cox proportional-hazard model. The median postintervention duration in the experiment group was 25 days, while in the control group was 12.5 days. The coverage of exclusive breastfeeding at 5, 10, 15, 20, 25, and 30 days in the experiment and control group were 100% and 100%, 100% and 90%, 90% and 40%, 80% and 20%, 62.5% and 12.5%, as well as 15% and 5% respectively. Per unit time, mothers in the control group were 2.38 times more likely to stop exclusive breastfeeding than mothers in the experiment group after controlling educational level and working status of the mother.

Keywords: mentoring model, breastfeeding motivator, duration, coverage

1. Introduction

World Health Organization (WHO) recommends that a mother should breastfeed her baby within the first hour. Breastfeeding to infants within the first hour is called breastfeeding initiation [1]. Implementation of breastfeeding initiation should ensure that infants actually receive colostrum as a perfect food as protective factors for newborns [2]. Skin to skin contact between mother and baby

helps breastfeeding initiation and improves exclusive breastfeeding's success for one to six months of breastfeeding [1].

Exclusive breastfeeding is recommended until the child aged 6 months old, then continued breastfeeding with complementary foods until the age of 2 years [2]. It can improve nutritional status and physical growth, reduce susceptibility to disease and better body resistance. Improved health outcomes in childhood have more lasting health effects over lifetime, including increased productivity performance and reduced risk of non-communicable diseases [3].
Implementation of a good breastfeeding initiation will facilitate the success of exclusive breastfeeding. Breastfeeding as early as possible may decrease the risk of infant death [4]. Meanwhile, exclusive breastfeeding prevents infants from having diarrhea and upper respiratory infections. Both diseases are susceptible to the risk of infant death [5].

Through the implementation of breastfeeding initiation and breastfeeding, about 800,000 children will be rescued annually where 16% of neonatal deaths can be saved if all babies are breastfed on the first day and 22% of neonatal deaths can be saved if breastfeeding begins within the first hour. But, globally less than 40% of infants under six months of age receive exclusive breastfeeding [3, 4].

Based on Indonesia Basic Health Research 2013, coverage of exclusive breastfeeding in Indonesia was 54.3% [6]. In the other words, only half of infants aged 0-6 months in Indonesia are given only breast milk. Of the 33 provinces in Indonesia, there were 14 provinces with exclusive breastfeeding coverage under national coverage. Otherwise, 19 provinces had coverage over national coverage, Central Java Province was ranked 17th, with coverage of 58.4%. It can be concluded that 42% of infants in Central Java have not obtained their rights in the form of breast milk.

Kendal District located in Central Java has exclusive breastfeeding coverage that did not meet the minimum service standard, although there was a significant increase from 22.9% (2015) to 47.8% (2016). In line with previous result, Kendal District showed 25% of breastfeeding initiation coverage and exclusive breastfeeding of 46% [7].

One of sub-districts in Kendal that is still low breastfeeding initiation coverage and exclusive breastfeeding is Boja. This area consists of 2 main areas, urban and suburban. The urban area mostly has mountain topography with strong kinship level, while the suburban area is on the border with Semarang City with weak kinship level. Most urban villages still had exclusive breastfeeding coverage below 30%. Ngabean Village is one of the villages in urban areas that needs health interventions, such as breastfeeding initiation, exclusive breastfeeding, and complementary foods.

The achievement of breastfeeding initiation and exclusive breastfeeding can be realized by active participation of the community. An expert who provides only education to mothers about breastfeeding is not enough to increase knowledge even to change behavior. Mother needs role-model. It means sustainable support for mothers from the surrounding environment such as husbands, parents, in-laws, neighbors, friends and health facilities that can increase mother's motivation and trust in breastfeeding initiation and exclusive breastfeeding success.

One effort to do is establish mentoring model with breastfeeding motivator. Breastfeeding motivator is a community-based group that provides assistance to mothers to breastfeed their babies. A mother who has breastfeeding experience shares information, offers help to other mothers so that the mother can provide breastfeeding initiation and exclusive breastfeeding. Participants of breastfeeding motivator are followed by pregnant women and breastfeeding mothers. Therefore, the aim of this study was to determine the effectiveness of mentoring model with breastfeeding motivator to the exclusive breastfeeding duration and coverage.

2. Experimental Work

This study was quasi-experiment, with a posttest only control group design. The intervention in this study was mentoring model with breastfeeding motivator. Measurement was done in day 1 to 30 after intervention. The study was conducted in 2 villages, Ngabean Village as experiment group (30 breastfeeding mothers with intervention) and Kliris Village as control group (30 breastfeeding mothers without intervention). Other variables studied were educational level and working status of the mother. The collected data were analyzed by survival analysis using cox proportional-hazard model.

3. Results and Discussion

In addition to the breastfeeding motivator and duration of exclusive breastfeeding variables, this study also measured educational level and working status of the mother (Table 1). Both variables are important to be analyzed further because these are expected to affect the effectiveness of mentoring model with breastfeeding motivator to the duration of exclusive breastfeeding.

Table 1. Characteristic of subject by mother educational level and working status

Variable	Experiment		Control		Total	
	n	%	n	%	n	%
Educational level						
1. Low	3	14,3	18	85,7	21	100
2. High	28	71,8	11	28,2	39	100
Total	31	50,0	29	50,0	60	100
Working status						
1. Working	8	33,3	16	66,7	24	100
2. Not working	23	63,9	13	36,1	36	100
Total	31	50,0	29	50,0	60	100

2-5 September 2017
Saen Palm Conventiona Hall
Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom, Thailand
ISBN 978-616-278-391-3

Table 2. Person time (day) among experiment and control groups

Person time	N	Mean	SD	Min	Max
Control	30	12,5	2,87	8	30
Experiment	30	25	1,97	12	30

Person time is the time of observation starting from the beginning of observation until the end of observation. **Event** in this study is the mother does not give exclusive breastfeeding, while **Cencoring** is the mother still gives exclusive breastfeeding or mother is missing from observation. Therefore, the observation time in this study started from the beginning of the study to 30 days of observation. The observed thing is whether the mother exclusively breastfed for her baby until 30th day. The median postintervention duration in the experiment group was 25 days, while in the control group was 12.5 days (Table 2).

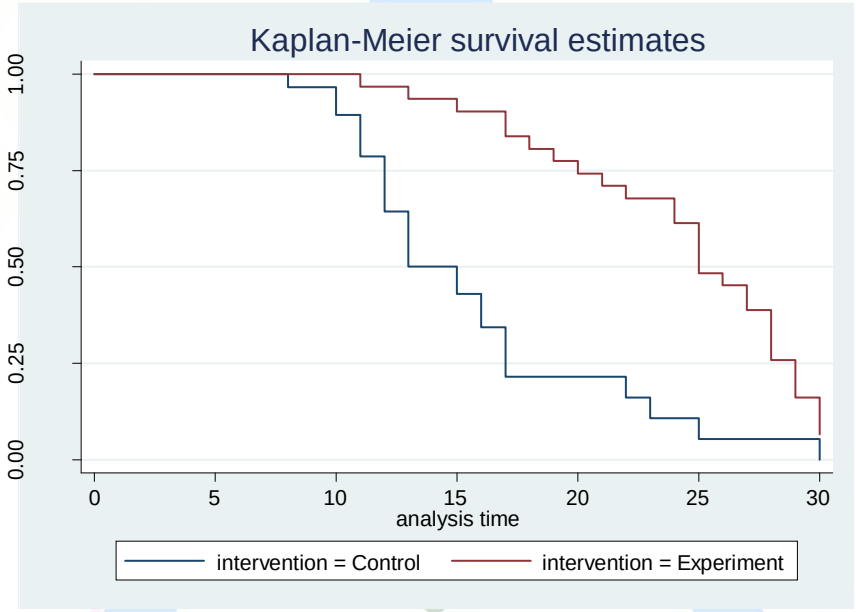


Figure 1. Kaplan-meier curve by experiment and control group

Figure above illustrated the coverage of exclusive breastfeeding at day 5, 10, 15, 20, 25, and 30 in the experiment and control group were 100% and 100%, 100% and 90%, 90% and 40%, 80% and 20%, 62.5% and 12.5%, as well as 15% and 5% respectively. This showed that the coverage of exclusive breastfeeding in the experiment group was higher than in the control group at day 10, 15, 20, 25, and 30. Other information might be drawn from the figure above was the median duration of exclusive breastfeeding in the experiment group was 25 days, whereas in the control group was 12.5 days. This value indicated the time at which 50% of mothers did not continue exclusive breastfeeding to their babies. In the experiment group, 50% of mothers did not continue exclusive

ISBN 978-616-278-291-3

breastfeeding to their babies after 25 days, whereas in the control group, 50% of mothers did not continue exclusive breastfeeding to their babies after 12.5 days.

Table 3. Multivariate analysis of mentoring model with breastfeeding motivator, mother educational level, and working status with duration of exclusive breastfeeding

Variable	Model 1	Model 2
	HR (95% CI)	HR (95% CI)
Breastfeeding motivator	2.69 (1.35-5.35)	2.38 (1.23-4.61)
Eduacational level	1.83 (0.79-4.26)	2,51 (1.29-4.85)
Working status	1.56 (0.75-3.23)	-

Based on table 3, mothers in the control group were 2.38 times more likely to stop exclusive breastfeeding than mothers in the experiment group who received mentoring from breastfeeding motivator after controlling educational level and working status of the mother (adjusted HR: 2.38; 95% CI: 1.23-4.61).

The success of exclusive breastfeeding depends on the support of the people around them such as husband, father, mother. In addition, information on how to well breastfeed is also very necessary by breastfeeding mother. The impact of appropriate information can affect the psychological and maternal health of exclusive breastfeeding [8]. The motivation of pregnant women to childbirth needs to be increased through a class or association of pregnant women to share information. Due to motivated mothers, 4.9% of them increase in exclusive breastfeeding. Mothers who do not give exclusive breastfeeding rarely attend a gathering of pregnant or under-motivated women [9].

Involving community leaders can improve exclusive breastfeeding. Another study suggests that infants of mothers receiving counseling have an opportunity to breastfeed at 9,3 times higher than infants of unaccompanied mothers. Mother who was given counseling and husband assistance had a success rate of 2.3 times compared with the mother without counseling and husband's assistance [10].

This research used breastfeeding motivator consisting of village midwife, health volunteers, and community leaders. The complete formation of breastfeeding motivators can further refine mentoring to breastfeeding mothers in exclusive breastfeeding. Motivators provide assistance to the mother to breastfeed her baby. A mother who has breastfeeding experience shares information, offers help to other mothers so that the mother can provide breastfeeding initiation and exclusive breastfeeding. Parent, especially mothers will feel lucky to get friends who can be invited to share and obtain information about breast milk and how to well breastfeed.

ISBN 978-616-278-391-3

4. Conclusions

Breastfeeding motivator is an effective mentoring model to increase duration and coverage of exclusive breastfeeding.

References

[1] WHO.Early initiation of breastfeeding. Available: http://www.who.int/elena/titles/early_breastfeeding/en/; 2015.

[2] WHO. Exclusive Breastfeeeding. Available: http://www.who.int/elena/titles/exclusive_ breastfeeding/en/; 2015.

[3] WHO. *Health Topics Breastfeeding.* Available: http://www.who.int/topics/breastfeeding/en/; 2015.

[4] Edmond,K. M., Zandoh, C., Quigley, M. A., Amenga-Etego, S.,Owusu-Agyei, S. & Kirkwood, B. R. Delayed breastfeeding initiation increases risk of neonatal mortality. Pediatrics 2006; vol: 117(3).

[5] Kramer, M. S., Matush, L., Vanilovich, I., Platt, R. W., Bogdanovich, N., Sevkovskaya, Z., Dzikovich, I., Shishko, G., Collet, J. P., Martin, R. M., Smith, G. D., Gillman, M. W., Chalmers, B., Hodnett, E., Shapiro, S. Effects of prolonged and exclusive breastfeeding on child height, weight, adiposity, and blood pressure at age 6.5y: evidence from a large randomized trial. Am J Clin Nutr 2007; vol: 86.

[6] Health Research and Development Board Ministry of Health of the Republic of Indonesia. Indonesia Basic Health Research 2013, Jakarta: Ministry of Health of the Republic of Indonesia; 2013.

[7] Raharjo,BB.Momentumemas pembentukan SDM berkualitas kajian sosial udayainisiasimenyusu dinidan ASIeksklusif di masyarakat Kendal, Jawa Tengah, Salatiga: UKSW Press; 2015.

[8] Hahn-Holbrook, J., Schetter, CD., & Haselton, M. Breastfeeding and maternal mental and physical health, London, 2012.

[9] Lange, A., Nautsh, A., Weitmann, K., Ittermann, T., & Heckmann, M. Breastfeeding motivation in Pomerania: Survey of neonates in Pomerania (SNiPStudy). International Breatfeeding Journal 2017; vol: 12.

[10] Wambach, K.A. Breatfeeding intention and outcome: A test of the theory of planned behavior. Research in Nursing & Health 1997: vol: 20.

ACPES 2017
The 3rd International Conference on Physical Education Health and Sport
ASEAN Council of Physical Education and Sport
"Best Practice for ASEAN+ Community: Enhancing Physical Activity, Physical Education, Sport, Health and Recreation"
2-5 September 2017
Saen Palm Conventiona Hall
Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom, Thailand
ISBN 978-616-278-391-3

ACPES 2017
The 3rd International Conference on Physical Education, Health and Sport
ASEAN Council of Physical Education and Sport
"Best Practice for ASEAN+ Community: Enhancing Physical Activity, Physical Education, Sport, Health and Recreation"
2 - 5 September 2017
Saen Palm Convention Hall, Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom,Thailand
Hosted by: Kasetsart University

ACPES 66-Full

MULTILEVEL PROMOTION TO INCREASE EXCLUSIVE BREASTFEEDING DURATION AND COVERAGE: SURVIVAL ANALYSIS IN KENDAL, INDONESIA

Lukman Fauzi,*[1] Lindra Anggorowati[2]

[1,2] *Public Health Science Department, Universitas Negeri Semarang (UNNES), F5 Building Sekaran Campus Semarang City Central Java Province, 50229, Indonesia*

Abstract

Exclusive breastfeeding coverage in Singorojo Subdistrict, Kendal was 30%. Multilevel promotion (MLP) is a comprehensive intervention by modifying determinants of exclusive breastfeeding, cross-sectoral cooperation, and involving community leaders, such as health volunteers, midwives, religious leaders, and village heads. The aim of this study was to determine the effectiveness of MLP toward the exclusive breastfeeding duration and coverage in Singorojo Sub-district, Kendal. This study was quasi-experiment, with a posttest only control group design. The intervention was MLP of exclusive breastfeeding. Assessment was after intervention at 2, 4, 6, 8, 10, and 12 weeks. Intervention group was defined as pregnant women who received MLP (residing in the area of Singorojo II Public Health Center). Control group was defined as pregnant women who did not receive MLP (residing in the area of Singorojo I Public Health Center). Data were analyzed with survival analysis using cox proportional-hazard model. Duration of exclusive breastfeeding increased after MLP intervention. Median post-intervention duration in the intervention group was 9.8 weeks, whereas in the control group was 7.2 weeks. The coverage of exclusive breastfeeding at 2, 4, 6, 8, 10, and 12 weeks in the experiment and control were 100% and 100%, 100% and 90%, 100% and 60%, 80% and 42%, 39% and 10%, as well as 10% and 0% respectively. Mothers in the control group were 2.9 times more likely to discontinue exclusive breastfeeding per unit of time than mothers in the intervention group after controlling mother educational level and age variables (adjusted HR: 2.9; 95% CI: 1.69-4.76).

Keywords: multilevel promotion, duration, coverage, survival analysis

1. Introduction

In Indonesia, exclusive breastfeeding is one indicator of clean and healthy behavior. Based on Indonesia Basic Health Research 2013, coverage of exclusive breastfeeding in Indonesia was 54.3%[1]. In the other words, only half of infants aged 0-6 months in Indonesia are given only breast milk. Of the 33 provinces in Indonesia, there were 14 provinces with exclusive breastfeeding coverage under national coverage. Otherwise, 19 provinces had coverage over national coverage, Central Java Province was ranked 17th, with coverage of 58.4%. It can be concluded that 42% of

infants in Central Java have not obtained their rights in the form of breast milk.

WHO stated that exclusive breastfeeding means that infants receive only breast milk. No other liquids or solids are given - not even water - with the exception of oral rehydration fluids, or drops/ syrups of vitamins, minerals or drugs [2]. Exclusive breastfeeding during the first six months of life is empirically proven to achieve optimal growth, development and health. Breast milk contains all the nutrients baby needs in the first six months of life. Breastfeeding protects against common diarrhea and childhood diseases such as pneumonia, and may also have long-term health benefits for mothers and children, such as reducing the risk of overweight and obesity in childhood and adolescence [3, 4, 5].

Kendal District as one of the districts that contribute to coverage of breastfeeding in Central Java. Based on health profile of Kendal in 2013, exclusive breastfeeding in infants aged 0-6 months was 47.8%. This coverage increased compared to the achievement in 2012 of 22.9%. Despite the increase in coverage, this achievement still did not meet the minimum service standards. Breastfeeding initiation in newborn infants was only 30% of births assisted by midwives in regional hospital in Kendal [6]. Whereas midwives who served in that hospital has undergone training in both normal care training, breastfeeding initiation, and breast milk counselor.

The success of exclusive breastfeeding is influenced by many factors, such as maternal factors, socio-cultural environment factors, and maternity assist factors. The success of breastfeding initiation and exclusive breastfeeding is influenced by the support of in-laws, midwives, and community leaders [7]. They have an enormous influence to ensure that mothers do not breastfeed their children, especially in rural areas where there are still high levels of kinship.

One of the sub-districts in Kendal still low coverage of exclusive breastfeeding was Singorojo. This sub-district is dominated by mountain topography which is still very strong kinship level. In fact, most villages in Singorojo had exclusive breastfeeding coverage below 30%. This encourages exclusive breastfeeding support, promotion and protection of the government and community through supporting programs or research. Implementation of interventions can be in the form of single or multilevel. Multilevel intervention is usually more effective than single interventions because it addresses multiple risk factors or determinants.

Multilevel promotion (MLP) is conducted at the sub-district, village, family, and individual levels. This promotion is a comprehensive intervention activity by modifying the determinants of exclusive breastfeeding, cross-sectoral cooperation, and involving community leaders, such as health cadres, midwives, religious leaders, and village heads. The strategies undertaken are advocacy, training, media, and home visit counseling [8]. This is necessary because the factors that inhibit exclusive breastfeeding are not only single, but come from many factors, such as pregnant women, parental influences, birth attendants, health cadres, and community leaders. MLP is based on the idea that society affects health, beyond one's individual characteristics or behavior.

This study is expected to provide examples of promotional models or concrete efforts to increase

the duration and coverage of exclusive breastfeeding, resulting in increased knowledge and behavioral changes to provide exclusive breastfeeding to infants aged 0-6. Therefore, this study aims to determine the effectiveness of MLP toward the exclusive breastfeeding duration and coverage in Singorojo Sub-district, Kendal.

2. Experimental Work

This study was quasi-experiment, with a posttest only control group design. The intervention was MLP of exclusive breastfeeding. Assessment was after intervention at 2, 4, 6, 8, 10, and 12 weeks. Experiment group was defined as pregnant women who received MLP (residing in the area of Singorojo II Public Health Center). Control group was defined as pregnant women who did not receive MLP (residing in the area of Singorojo I Public Health Center). Sampling technique used was purposive sampling. Sample size each group was 40 pregnant women.

Forms of MLP activities are advocacy, family, community, and public health center training, giving media, and home visit counseling to pregnant women. Participants who follow these activities are pregnant women, pregnant women's families, village heads, health cadres, community leaders, and birth attendants. The materials used in this intervention are made on the basis of reference materials on breast milk from UNICEF, WHO, and LINGKAGE which are translated or modified in accordance with Indonesian circumstances including books, booklets and presentation materials. Collected data were analyzed with survival analysis using cox proportional-hazard model.

3. Results and Discussion

In addition to the MLP and duration of exclusive breastfeeding variables, this study also measured mother educational level and age variables (Table 1). Both variables are important to be analyzed further because these are expected to affect the effectiveness of giving MLP to the duration of exclusive breastfeeding.

Table 1. Characteristic of subject by mother educational level and age

Variable	Experiment		Control		Total	
	N	%	n	%	n	%
Educational level						
1. Low	17	80.9	4	19.1	21	100
2. High	23	38.9	36	61.1	59	100
Total	40	50	40	50	80	100
Age						
1. > 35 years old	23	53.5	20	46.5	43	100
2. ≤ 35 years old	17	45.9	20	54.1	37	100
Total	40	50	40	50	80	100

ISBN 978-616-278-391-3

Table 2. Person time (week) among experiment and control groups

Person time	N	Mean	SD	Min	Max
Control	40	7.2	2.17	4	11
Experiment	40	9.8	1.31	8	12

Person time is the time of observation starting from the beginning of observation until the end of observation. **Event** in this study is the mother does not give exclusive breastfeeding, while **Cencoring** is the mother still gives exclusive breastfeeding or mother is missing from observation. Therefore, the observation time in this study started from the beginning of the study to 12 weeks of observation. The observed thing is whether the mother exclusively breastfed for her baby until 12th week. The median post-intervention duration of mother giving exclusive breastfeeding to the control group was 7.2 weeks, while in the intervention group was 9.8 weeks (Table 2).

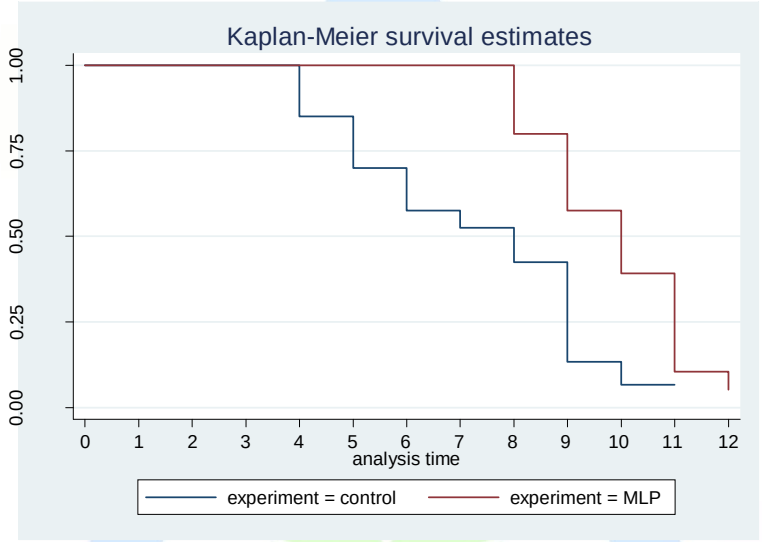


Figure 1. Kaplan-meier curve by experiment and control group

Figure above illustrated the coverage of exclusive breastfeeding at weeks 2, 4, 6, 8, 10, and 12 in the experiment group and controls as follows: 100% and 100%, 100% and 90%, 100% and 60%, respectively, 80% and 42%, 39% and 10%, and 10% and 0% respectively. This showed that the coverage of exclusive breastfeeding in the experiment group was higher than in the control group at weeks 4, 6, 8, and 12. Other information might be drawn from the figure above was the median post-intervention duration of exclusive breastfeeding in the experiment group was 9.8 weeks, whereas in the control group was 7.2 weeks. This value indicated the time at which 50% of mothers did not continue exclusive breastfeeding to their babies. In the experiment group, 50% of mothers did not continue exclusive breastfeeding to their babies after 9.8 weeks, whereas in the control group, 50% of mothers did not continue exclusive breastfeeding to their babies after 7.2 weeks.

Table 3. Multivariate analysis of MLP, mother educational level, and age with duration of exclusive breastfeeding

Variable	HR	95% CI	p-value
MLP	2.90	1.69-4.76	<0.01
Eduacational level	3.57	2.04-6.24	<0.01
Age	3.22	1.92-5.26	<0.01

Based on table 3, mothers in the control group were 2.9 times more likely to discontinue exclusive breastfeeding per unit of time than mothers in the experiment group who received MLP after controlling mother educational level and age variables (adjusted HR: 2.9; 95% CI: 1.69-4.76).

Health promotion is the science and art of helping people make their lifestyle healthy optimal. Optimal health is defined as the balance of physical, emotional, social, spiritual, and intellectual health. This is not just a lifestyle change, but it is related to environmental changes that are expected to be more supportive in making healthy decisions. Changing lifestyles can be facilitated through deployment: 1) creating a supportive environment, 2) changing behavior, and 3) raising awareness [9].

Based on these explanations, MLP has aspects of health promotion, such as creating a supportive environment, changing behavior, and awareness raising. In this study, MLP has a role to create an enabling environment for exclusive breastfeeding, characterized by support from families, birth attendants, and community leaders to help mothers to provide exclusive breastfeeding to their babies. In relation to the second aspect, MLP has been shown to have an impact on behavioral changes in breastfeeding mothers in Singotojo to increase the duration and coverage of exclusive breastfeeding. In the third aspect, breastfed mothers, families, and communities are also aware of the importance of exclusive breastfeeding for infant and child growth and development.

This method needs to be applied because the factors that inhibit exclusive breastfeeding are not only single, but are derived from many factors, such as pregnant women, parental influences, birth attendants, health cadres, and community leaders. Multilevel intervention is usually more effective than single interventions because it addresses multiple risk factors or determinants [10]. MLP is based on the idea that society affects health, beyond one's individual characteristics or behavior. Exclusive breastfeeding multilevel promotion research has proven the increasing duration and proportion of exclusive breastfeeding. The duration of breastfeeding increased 0.1 weeks in the control group compared with 18 weeks in the intervention group. The prevalence of exclusive breastfeeding was six months at 3.7 percent in the control group and 37.0 percent in the intervention group [8].

Multilevel health promotion research is based on the idea that society affects health, above and beyond one's individual characteristics or behavior. Contextual effects can be strictly analyzed using multilevel modeling, thereby determining whether contextual effects are really from the context or are the result of the social profile of citizens. In other words, a health problem that is

influenced by some determinants, then the efforts made to overcome these problems must be done comprehensively, not only focus on the individual, but also consider the environment around the individual. In this case is the family, birth attendant, and community leaders [11].

4. Conclusions

Multilevel promotion of exclusive breastfeeding is an effective health promotion to prolong duration and coverage of exclusive breastfeeding.

References

[1] Health Research and Development Board Ministry of Health of the Republic of Indonesia. Indonesia Basic Health Research 2013, Jakarta: Ministry of Health of the Republic of Indonesia; 2013.

[2] WHO. Exclusive Breastfeeeding. Available: http://www.who.int/elena/titles/exclusive_breastfeeding/en/; 2015.

[3] WHO. Exclusive breastfeeding to reduce the risk of childhood overweight and obesity. Available: http://www.who.int/elena/titles/breastfeeding_childhood_obesity/en/; 2015

[4] Jones, G, Steketee, RW, Black, RE, Bhutta, ZA & Morris, SS. How many child deaths can we prevent this year? Lancet 2003; vol: 362.

[5] Kramer, MS, Chalmers, B, Hodnett, ED, Sevkovskaya, Z, Dzikovich, I & Shapiro, S. Promotion of breastfeeding intervention trial (probit): a randomized trial in the republic of belarus. JAMA 2001; vol: 285.

[6] Widiastuti, YP, Rejeki, S & Khamidah, N. Faktor-faktor yang mempengaruhi pelaksanaan inisiasi menyusui dini di ruang mawar Rumah Sakit Umum Daerah dr. H. Soewondo Kendal. Jurnal Keperawatan Maternitas 2015; vol 1(2).

[7] Raharjo, BB. Momentum emas pembentukan SDM berkualitas kajian sosial budaya inisiasi menyusu dini dan ASI eksklusif di masyarakat Kendal, Jawa Tengah, Salatiga: UKSW Press; 2015.

[8] Susiloretni, KA, Krisnamurni, S, Sunarto, Widiyanto, SYD, Yazid, A & Wilopo, SA. The effectiveness of multilevel promotion of exclusive breastfeeding in rural Indonesia. American Journal of Health Promotion 2013; vol: 28(2).

[9] O'Donnell, M. Definition of health promotion: part iii: expanding the definition. American Journal of Health Promotion. Winter 1989; vol: 3.

[10] Imdad, A, Yakoob, MY & Bhutta, ZA. Effect of breastfeeding promotion interventions on breastfeeding rates, with special focus on developing countries. BMC Public Health 2011; vol: 11.

[11] Kothari AR & Birch S. 2004. Multilevel health promotion research: conceptual and analytical consideration. Can J Nurs Res 2004; vol: 36(1).

ISBN 978-616-278-391-3

ACPES 2017
The 3rd International Conference on Physical Education, Health and Sport
ASEAN Council of Physical Education and Sport
"Best Practice for ASEAN+ Community: Enhancing Physical Activity, Physical Education, Sport, Health and Recreation"
2 - 5 September 2017
Saen Palm Convention Hall, Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom,Thailand
Hosted by: Kasetsart University

ACPES73-Full

HOW TO IMPROVE COMMUNICATION SKILL? THE STUDY OF COMMUNICATION BETWEEN COACH AND DEAF CHILDREN IN SWIMMING

Nurul Julinar

Universitas Negeri Semarang, Sekaran, 50229, Indonesia
**Email: julinar97@gmail.com*

Abstract

Swimming activity is the one of the water sports activities that has benefits for the body. The benefits of swimming can increase the resistance of the body to various diseases, easy to joints, build muscular fitness, and also, studies have shown that swimming can actually improve the overall condition. From the perceived benefits, the introduction of how to train a variety of styles in swimming also requires the potential and also volition in every person, whether people who have a normal body condition and also who have special needs. The introduction of knowing how to swim with better instruction begins in childhood, where at that time how children can capture information can be processed properly and can be taken seriously with the emphasis of any information provided. For children who have a normal body, the introduction of the movement on how to swim can be done well. But for children with special needs certainly as like deaf children having to learn the introduction of any movement is very difficult to do, it must be done in a special way too. The coaches must also have an effective way to establish good communication and can be understood by deaf children who have more neglected, more pendently and show less self-confidence. The solution for the coaches should to introducing a small group and teach profoundly deaf children swim, using the auditory sandwich methods, and also the coach had good levels of signing skills to teach them to the best of qualified swimming instructor.

Keywords: Swimming, Deaf Children, Communication.

1. Introduction

Movement in swimming can be learned from the theory presented by the trainer, someone who understands swimming or through of visualization. It also depends on the ability to know how to capture information correctly. In people who have normal body circumstances, to reviewing information about the various swimming movements taught by the trainer can be well understood. In fact, for people with special needs, for example, deaf people have difficulties in understanding how trainers provide information to them, of the shortcomings possessed by deaf people must have certain

advantages. The advantages of those who have a strong will in every move, and also the potential to improve swimming techniques in deaf children is the same as like a normal child. There is a capability is also supported from communication between deaf and coaches. From these circumstances, the coaches must also have an effective way to establish good communication and can be understood by deaf children The studies have shown that deaf children feel more neglected and less accepted by other children and that they behave more dependently and show less self-confidence (Bat Chava, 1993; Desselle, 1994; Montanini Monfredi, 1993; Yachnik, 1986). In the sense of deaf children's habits turns out they have difficulty in making friends and they have no friends in class. It becomes an evaluation of swimming trainers for deaf children to ask for a good method and can communicate even closer with them. From those experiences to make the communication between coach and deaf children in swimming, it's showing the results of good potential how deaf children can learn quickly and examine every command from coaches every practice is held, because the potential of the deaf children is the same like the normal children.

2. Literature Review

Swimming is an activity that burns lots of calories, is easy on the joints, supports your weight, builds muscular strength and endurance. It also improves cardiovascular fitness, cools you off and refreshes you in summer, and is one that you can do safely into old age (Matt Luebbers. 2015) Swimming does not come naturally, which to learn how to propel through the water and the correct breathing techniques. People who really want to learning sport activities, example, swimming have to studying how to know-well in every movement in swimming from theory and practice presented by coach, someone who understands swimming or through of visualization, example tutorial videos. It also depends on the ability to know how to capture information correctly. For the normal people can learn about swimming techniques what coach saying to them. But, for children who are hearing loss, swimming is a sport that is very disturbing children who have ordinary hearing. In general, the coach does not have the ready intention for teaching deaf children to communicate, it will lead to ineffective disruptions, and make swimming programs become unproductive.

The term 'deaf' is used to refer to any level of hearing loss significant enough to have an impact on language development and learning. This includes mild, moderate, severe and profound categories in audiological terms (British Society of Audiology 1998). Deaf children have to know the emotional information must be conveyed in sign language using only visual cues. These can be found in the moving and positioning of the hands, face, eyes, torso, shoulders etc. (Vinson et al. 2008). The coaches can provide knowledge for deaf children and also they should have the communication skills that must be adjusted to the ability to develop their way of thinking. In addition, the coach must also understand that children who are deaf or hard of hearing need the same foundation of listening experiences as their peers, regardless of the age of intervention. Although the results of research have often indicated that deaf children have impaired emotional competence, this effect has typically just concerned their ability to label and understand the causes of emotions (Rieffe & Meerum Terwogt, 2006).

The coach also must inspire the sign language that is easy and understandable and has a signal function of communication, such as sign of movement using the right hand, the left, breathe, try again, and others, then help the child by holding it in the proper posture or move an arm before moving on

their own (Annie Boyd. 2009). Use as many gestures and signs or signals as possible to explain what a child should do. Coaches should also know about "Auditory Sandwich.". Theory uses these auditory cues first, then visual cues, followed by more auditory cues apply to swimming lessons (Joanne Love. 2006). The coaches classify everything through auditions before, and then the coaches use visuals, cues and signs during the lesson, to finish the "sandwich", end the lesson with a hearing recap of all the things you do. Discuss any breakdowns that may have occurred with the gestures, signs or signals, review techniques on land. There is some method to improve swimming skill about how to make relation between coach and deaf children, they are pointing or gesture, give speech reading cues, shows a toy or object, sign your message, and write messages Coaches need to use frequent demonstrations, give lots of visual feedback and remember to teach the athlete to use a strobe light as a starting signal. Now deaf and hearing has no say in the matter, it is simply up to the amount of time and hard work put into enhancing their swimming skills.

Coaches and deaf children should be created in a small neighborhood, because of the behavior of deaf children more comfortable in learning that do not cause a lot of questions and immediately perform a variety of movement without a lot of time (Charlie, Swinbourne <http://charlieswinbourne.com/>. 2012) . The coaches have to know that deaf children's friendships with deaf peers are also less stable than those among hearing children (Rieffe, Carolien, Terwogt, Mark Meerum. 2006). Coaches are should know the characteristics of each deaf child who have different concentration and emotion of learning in swimming. The coaches must create a visually effective way of explaining a series of drawings so that the deaf child can understand every movement correctly. For those coaches who do the learning in deaf children can explain to the child in the exercise should be explained to be there for deaf children to float with the right moves, and practice activities on the ground by demonstrating how the hands, arms, legs and breathe should be, and coaches should train the deaf children's confidence in order to learn.

When you use an auditory sandwich, your child has at least three opportunities for exposure to the sound, word or message you are communicating. When the information is presented first through listening alone, the child has the opportunity to focus on listening. This circumstance might be because they show less understanding of social rules and goals in friendship (Rachford & Furth, 1986). Deaf children have successfully understood the instructor's instructions by using visualization into practice and making their practice able to create good communication between coach and swimmers performance can be better. Coaches need to use frequently, give plenty of visual feedback and remember to teach the deaf children using the the sight of flashlight as a preliminary signal, to complete the process for performances and competitions.

Deaf children can follow criticism of their coach, and how to make the game there is no difference between a normal person and a person who has a hearing deficiency, so it can perform the competition well, one of them with a sense of starting its competition with audi bell during the race starts. Surveys conducted in Rochon, Feinstein, and Soappy's "The effectiveness of American Sign Language in the Athletes Coaches who Deaf" has shown the majority of coaches deaf athletes feel as if they are communicators are not effective with athletes they are, for example trying to communicate by using white leaderboard and the coach hopes that athletes can read the from lips gesture effectively.

2-5 September 2017
Saen Palm Convention Hall
Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom, Thailand
ISBN 978-616-278-391-3

3. Methods

The method use in this study of qualitative methods obtained from observation and interview to the Schools for Disabled Children throughout Central Java. The interview begins to know children who have an interest in swimming, and also interviewing the coach how making communication with deaf children, whether the techniques have been effective for deaf children in exploring each movement surely. Then provide observation on the ground when the trainer and deaf children do swimming exercises in the pool, how the learning is working whether it has communicated effectively in conveying every movement in the pool or not.

References

[1] Bat Chava, Y. (1993). *Antecedents Of Self-Esteem In Deaf People*. Rehabilitation Psychology, 38, 221_234

[2] Boyd, Annie. April 6,2009. *Swimming Health Benefits*. Taken from : https://www.betterhealth.vic.gov.au/health/healthyliving/swimming-health-benefits, accessed July, 27 2017

[3] British Society of Audiology (1988). Descriptors for pure tone audiograms. *British Journal of Audiology* 22, 123.

[4] Matt. December 30, 2015. *Whats Good About Being A Swimmer*. Taken from : https://www.thoughtco.com/whats-good-about-being-a-swimmer-3170037, accessed on 28 July 2017

[5] Love, Joanne. 2006. *Swimmer with a Disability-A Brief Guide for Coaches.* Taken from : http://www.asctav.com.au/documents/SWD_Coaches_Guide_Joanne_Love_Apr2006.pdf, accessed on 27 July 2017

[6] Rachford, D., & Furth, H. G. (1986). *Understanding Friendship And Social Rules In Deaf And Hearing Adolescents*. Journal of Applied Developmental Psychology, 7, 391_402.

[7] Rieffe, Carolien., Terwogt, Mark Meerum. (2006). *Anger Communication In Deaf Children*. Psychology Press. 20 (8), 1261-1273

[8] Rochon, Wendy, Feinstein & Soukup. October 27, 2006. *Effectiveness of American Sign Language in Coaching Athletes who are Deaf*. Take from:http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/1b/f2/7b.pdf, accessed on 28 July 2017

[9] Swanwick, Ruth. (2015). Deaf children's bimodal bilingualism and education. Cambridge University Press 2015. 49.1, 1–34

Swinbourne, Charlie. August 3, 2012. *Tamsin Coates Teaching Deaf Children How To Swim*. Taken from: http://limpingchicken.com/2012/08/03/tamsin-coates-teaching-deaf-children-how-to-swim/, accessed on July, 27 2017

2-5 September 2017
Saen Palm Conventiona Hall
Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom, Thailand
ISBN 978-616-278-391-3

ACPES 2017
The 3rd International Conference on Physical Education, Health and Sport
ASEAN Council of Physical Education and Sport
"Best Practice for ASEAN+ Community: Enhancing Physical Activity, Physical Education, Sport, Health and Recreation"
2 - 5 September 2017
Saen Palm Convention Hall, Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom,Thailand
Hosted by: Kasetsart University

ACPES74-Full

PERCEPTION OF BASKETBALL PLAYER IN INDONESIA

Oka Anastasari

Universitas Negeri Semarang, Sekaran, 50229, Indonesia
**Email : okanastasari56@gmail.com*

Abstract

Basketball is a team game consisting of 2 teams with 5 players per team, when the ball can be given only by passing by hand or by dividing multiple times in a room without touching it with two hands simultaneously. In Indonesia also liking to exercise basketball, but there are a lot people who have measurement in 165 cm, people above average height more distribute their potential in basketball, for example on shooting techniques, lay up and dunk. The problem is basketball is often played with a variety of requirements that one of them is having a high enough in doing these activities, every technique performed can be played well.

But this does not make people who have a height below the average can not to play basketball. That should be understood at every game in the sport that speed, quicker with reflexes, work harder, burn more energy, have the stamina to run throughout the entire game. In research conducted using qualitative techniques that in research of Senior High School on West Ungaran. The author will provide a questionnaire that gives the question of whether it is true that people who have a height less than 160cm cannot play basketball. The expected result that most people in Indonesia dont assume people who have height 160 cm can not play basketball well. The conclusion is to prove that people who have height of less than 160 cm does not mean can not play basketball.

Keywords : basketball, height, perception

1. Introduction

The problem in basketball is not just about injury or about how doing the right shooting, to doing the right lay up and learn basketball quickly, but there is also very important that is perception of people which specifically perception about the shortest player in Basketball.

The reason is in this case as described above, that Indonesia is a country that has many residents, therefore perceptions in Indonesia is also often a problem here because the differences in people's perceptions in Indonesia sometimes have racist thoughts and make an impact, which is strong in the surrounding environment. In this study people of Indonesia have the perception that short people can not to play basketball. Almost all people who look down on people who have a height that is less than standard basketball players, but that is not true because each person has a different ability differences. This is very important to examine because this research can change the wrong perception of short people who in fact can do or play basketball well, even exceed the ability of people who have a high

posture, It is focus on the speed that is owned in people who have short posture. The speed of motion generated will provide benefits for people who have short posture, because the movement generated easier to pass other players

So the purpose of this study is an important part in changing the perception that people who have short posture can play in a basketball game like a person who has a high posture.

2. Literature view

Indonesia is a country that has a very dense population of developing countries. Indonesia is a law-based country (rechtstaat). The government organizers in performing their duties must be based on laws / regulations, and should be legally accountable, The power of the state is not unlimited. Head of state, although not responsible to the House, he is not a dictator. With the existence of a supervision, then there is a mechanism / means as a preventive prevention so that the implementation of the constitution does not lead to absolutism. (Parwianto Herwan.1997). so Indonesia is a country that is free to give its opinion, because the voice of the citizens is very listened by the government.

Perception is the way in which things are perceived, understood, or interpreted. So in building the perception of the public to understand the game of basketball, especially for players who are short body postures, need to improve what is considered wrong where the ability in shooting and lay up techniques. Meanwhile, in the meaning of basketball is a sport that requires a lot of energy because in basketball we not only rely on good physical alone, but we also have to use our brains to think how to create a strategy in the field whose condition changes. Basketball is a team game consisting of 2 teams with 5 players per team. The goal is to. The ball can be given only by passing (operand) by hand or by dividing it (batting, push, or tapping) multiple times in a room without touching it with two hands simultaneously (Wissel 2000: 2). Usually in a team that will have a competition is twelve people, because in the game is not possible a player is not replaced in one game so the function of this two person is as a backup to replace players who are tired or injured.

Players who have smaller body postures are usually more agile and faster. Supported by good dribbling ability, then the right position for short player is Guard. This position is more often outside the key hole or perimeter area. The players in this position usually tend to be small and fast. Guard less physical clash with opposing players. Point Guard is a suitable position for the owner of the shortest body of the team. The job is to organize the game with a strategy and apply game patterns that his team has learned.

While the position Shooting Guard or Small Forward Shooting Guard is usually filled by players who have the ability one on one (one on one) best in the team. Players must have the ability to dribble the ball is lively and able to score well. In playing basketball has a high and big posture, but the most priority is smart in playing and have the power and mentally stubborn, and the basics of basketball games. Smaller ballers tend to be quicker with their reflexes and fleeter of foot than taller players. Smaller guys, work harder, burn more energy, have the stamina to run throughout the entire game, have great lungs like what a swimmer.

ISBN 978-616-278-391-3

3. Methods

In research conducted using qualitative techniques. The authors will conduct research on a community near the author home, namely by collecting the habitant and give a questioner to the community in this residents . The author will provide a questionnaire that gives the question of whether it is true that people who have a height less than 160cm cannot play basketball. In addition, in this study will conduct interviews with sports experts who understand about basketball games that lead to their opinions about people who have less than 160 high to play basketball. Not only sports experts, but also athletes basketball and also the surrounding community. The answers of each individual will be collected and analyzed whether it is true that people in Indonesia always assume that people who look short cannot play basketball well.

References

[1] Meyer, Fred. July, 23 2017. *How to Play Basketball If You're Short.* https://www.thoughtco.com/how-to-play-basketball-if-youre-short-326425.

[2] di Indonesia, Sistem Administrasi Negara, and Sistem Konstitusional. *Sistem Administrasi Negara-Republik Indonesia*. (1997).

[3] Verschure, Paul FMJ, Thomas Voegtlin, and Rodney J. Douglas. *Environmentally mediated synergy between perception and behaviour in mobile robots*." *Nature* 425.6958 (2003): 620-624.

[4] Wissel, Hal. 2000. *Bola Basket: Dilengkapi dengan Program Pemahiran Teknik dan Taktik*. Jakarta: PT RajaGrafindo Persada

ACPES
ASEAN Council of Physical Education and Sport
2-5 September 2017
Saen Palm Conventiona Hall
Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom, Thailand
ISBN 978-616-278-391-3

ACPES 2017
The 3rd International Conference on Physical Education, Health and Sport
ASEAN Council of Physical Education and Sport
"Best Practice for ASEAN+ Community: Enhancing Physical Activity, Physical Education, Sport, Health and Recreation"
2 - 5 September 2017
Saen Palm Convention Hall, Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom,Thailand
Hosted by: Kasetsart University

ACPES75-Full

SELF-EMOTION CONTROL THROUGH ARCHERY

Muhammad Zalazar

Abstract

Victimization is a crime that we do not frequently hear. Victimization form varies. In Indonesia a few fraud victimization can be found. People with lack of self-control may become a fraud victim. Before doing something, people have to think and check whether what they do was right or not. People with lack of self-control also have the potential to become a criminal. The victim is being raped isbecause of the lack of self-control and this cause excessive sex impulse to the violator., the author hypothesize that archery can teach kids mastering self-control and male kids may be more attracted to learn archery than female, and also archery can develop patience. Because in target archery, archer needs to focus and stabilize their body movements while aiming to be able to shoot perfectly right in the bull's-eye. Stable and consistent shots are very critical in target archery The research will observe 15 kids in Perpani Kudus for a 5 months and also direct interviews with sample parent.

Keywords: self-control, victimization, archery.

1. Introduction

Number of victimization in Indonesia is still high, especially in a big city. Victimization forms also vary. We can know the news of people being fraud victimization like everywhere. Especially when it comes to online shopping. Peoples tend to search for the lowest price and good qualities when shopping. Peoples are nowadays are likely have less control of their self that's proven number of victims are not few. Poor self-control can make one's potentially been fraud victimization. Lacking of self-control ability is can be caused by not enough self-control training from the childhood. Self-control is the ability that human have while the other species on earth doesn't. To be able to master self-control, people have to start training controlling self-emotion since we were kids. But childhood is a time to play. So how can kids be able to play while learning self-control?. So to resolve this problem, hypothesize that teach archery to kids can make kids learn self-control while still be able to play. Also archery has potential to attract kids learn archery. Male kids may be more attracted to learn archery than female, and also archery can develop about the patience. Because in target archery, archer needs to focus and stabilize their body movements while aiming to be able shot perfectly right in the bull's-eye. Stable and consistent shots are very critical to get in target archery. To get the best result, the archer must get the most grouping shots in the bull's-eye. Lack of self-control can make the shot not grouping and even miss from the target. Teaching archery will make them learn to wait and hold their own desire to quickly release the string right after the bow was drawn because the weight of the bow being draw. Archery also teach to think every single movement is consistent and right before the

release string. It means that archery will help kids learn the importance of thinking before doing something.

2. LITERATURE REVIEW

In Indonesia, especially Jakarta. Before the Muslim fasting month of Ramadan crimes is always increasing. This was caused by pressure of providing gifts for family members and obtaining money for the Eid Al-Fitri holiday, which for the majority of Indonesian is extremely important (The Overseas Security Advisory Council. 2016). Crime like that is can be the cause of the low of self-control. The research found support for the use of routine activities and low self-control to explain the fraud victimization risk (K Holtfreter, MD Reisig, & TC Pratt. 2008).

Self-control is one of the most important features of the human psyche. Self-control means the ability to alter one's response. And its substantially responsible for the immense range and diversity of human behavior as well as for the adaptive success of our species (Roy F. Baumeister. 2002). Finding ways for people to live healthier, more successful, and more satisfying lives can be contributed by psychology. Self-control is a promising avenue to achieve this. It shows that self control can facilitate success in life in many spheres, and, crucially, it appears amenable to improvement (Roy F. Baumeister, Kathleen D. Vohs, & Dianne M. Tice. 2007).

The best time to start learning self-control was when kids. When children are in charge of their own play, it provides a foundation for their future mental health as older children and adults. Play outside also helps children make friends and learn to get along with each other as equals (Esther Entin. 2011).

Using archery to make kids spend their time on more beneficial time is possible. According to Bob Porter (2014), "Ultimately, everything I've learned in archery is all related to specific ways to help me improve my mental focus. Using a bow and arrow requires patience to ensure that you have the target in sight, and must identify your main target, understand important external factors, ensure you are internally ready, and ultimately take the shot". And don't forget that equipment is can be a problem to start learning archery. Because in archery, getting the right equipment is very important to start with. Using inexpensive equipment, but sacrificing accuracy even can detract from the fun of the archery will make the teaching process ineffective and even failed (Randall Grayson. 1997). Based from the statement above, we can conclude that using archery to make kids learn self control is possible. And not just make kids learn self-control archery will make kids' energy altered to the positive activities that gave lots of benefits.

3. METHODS

The Author will use qualitative descriptive research that will observe and interview. The experiment will observe 15 kids in the kids' city, Indonesia. Because the author is joining Perpani Kudus the samples will be learn archery in Perpani Kudus. When the samples learning archery the author will observe the samples. And also for the interview, the sample parent using live interview. Samples will be observing for 5 months from the first day they training. And also interviewing sample parent to gather more information. Way of interview that author use is a direct interview with samples parent.

ISBN 978-616-278-391-3

References

[1] Grayson, R., 1997. Teaching Archery. *Camping magazine*.

[2] Baumeister, R.F., Vohs, K.D. and Tice, D.M., 2007. The strength model of self-control. *Current directions in psychological science*, *16*(6), pp.351-355.

[3] Holtfreter, K., Reisig, M.D. and Pratt, T.C., 2008. Low self- control, routine activities, and fraud victimization. *Criminology*, *46*(1), pp.189-220.

[4] Porter, Bob. 2-5-2014. "Lessons Learned From Archery: How to Focus and Hit the Bull's-eye in Life" (2014).*UCF Forum*. 96. http://stars.library.ucf.edu/ucf-forum/96. 30 july 2017

[5] Baumeister, R.F., 2002. Yielding to temptation: Self-control failure, impulsive purchasing, and consumer behavior. *Journal of consumer Research*, *28*(4), pp.670-676.

[6] Fennell, L.A., 2010. Willpower Taxes.

[7] O'grady, Sarah. 10 February 2015. http://www.express.co.uk/news/uk/557383/Children-spend-more-time-with-screens-than-they-do-playing-outdoors. 29 july 2019.

[8] Entin Esther. 11 october 2011. http://www.thedoctorwillseeyounow.com/content/kids/art3463.html. 29 July 2017.

[9] The Overseas Security Advisory Council. 2016. 2 May 2016. https://www.osac.gov/pages/ContentReportDetails.aspx?cid=19606. 30 july 2017.

ISBN 978-616-278-391-3

ACPES 2017
The 3rd International Conference on Physical Education, Health and Sport
ASEAN Council of Physical Education and Sport
"Best Practice for ASEAN+ Community: Enhancing Physical Activity, Physical Education, Sport, Health and Recreation"
2 - 5 September 2017
Saen Palm Convention Hall, Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom,Thailand
Hosted by: Kasetsart University

ACPES76-Full

THE POTENTIAL OF PENCAK SILAT AS PERFORMANCE ART IN INDONESIA

Sultoni

Universitas Negeri Semarang, Sekaran, 50229, Indonesia
**Email: Sembilansembilanche@gmail.com*

Abstract

Indonesia is a country rich in culture and art. Differences are assets that make Indonesia rich. The diversity of each region is characteristic that must be maintained and preserved. Martial is a form of self-defense related to strength, endurance, and series of motion. There are elements of art, education, sports, and culture in it. There are many forms of martial arts and the commercial performances in the world. Pencak Silat is the indigenous Indonesian martial art that is rich in it.

Martial arts have many potentials that can be developed and beneficial. One of them as a national show, even at the international level. Pencak Silat have an artistic and cultural elements that symbolize the Indonesian culture. Not only as a self-defense, and sports, Pencak Silat can be made an interesting and entertaining art performances.There are several categories of art and type of appearance. Traditional art and modern art. Both have different charms. Pencak Silat is a traditional art and a culture that can be collaborated with modern style.

A study of the public view of Pencak Silat as an art show. And a reinforcing reason for Pencak Silat can be used as an artistic perspective. If the potential of Pencak Silat as an interesting show is achieved, this is very useful. Both in terms of cultural preservation and the economy of the country.

Keywords: Pencak Silat, Potential, Performance Art

1. Introduction

In the modern era, martial arts rapidly developed into something that is worldwide. All countries in the world have their own martial arts and the commercial performances that they are proud of and can be one of the country's distinctive features. Some famous and worldwide martial arts such as boxing from the United States; Taekwondo from South Korea; Sumo and Karate from Japan; Muai Thai from Thailand; Wu Shu and Kung Fu from China, and many more. The other martial arts which improving the benefit of self-defense, health, emotional control, and character building. The other potential is martial arts as a sporting event of achievement in official matches, and the potential as a show of art that can be entertaining.

Martial is very familiar with the world of cinema, especially with the action genre film. This is a martial art proof that can be used as an exciting and entertaining show. Indonesia is an archipelago

country which rich of culture and arts, and it raises distinctions of characteristic in each region with huge of uniqueness asset that needs to be maintained and preserved. One of the most important cultural heritages such as martial arts. Pencak Silat is one form of self-defense that uses agility, full of art, cultural characteristics, and social values.

As a form of traditional education, performing arts, components of ritual and community celebrations, a form of practical self-defense, the path to spiritual enlightenment, and more recently as a national and international sport. (Ian Douglas Wilson, 2002). Pencak Silat consists of a combination of art or the beauty of motion with strength and spirit, resulting in a beautiful and deadly movement. The elements of art and culture are characteristic of Pencak Silat. In traditional ways, silat appearance in some areas, martial arts with musical accompaniment. The problem is that not everyone in Indonesia likes such performances. Especially with the global developments that greatly affect the social life of Indonesian society. The effort to understand the public interest Pencak Silat made public. This research is made with the aim to know the extent to which society if Pencak Silat become a show and what kind of society like to watch Pencak Silat as a performance. So the potential of martial arts of Pencak Silat can be enjoyed by everyone in public through theater-shaped theater, colossal drama, or other action.

2. Literature Review

In history, it is not known who the founder and how the origins of Pencak Silat exist in ethnic Malay areas, especially in Indonesia. The name Pencak Silat is a term that has recently emerged. Its term, martial arts, has been used only as a general application term since about the 1950s and after Indonesian independence The vast diversity of styles and techniques occurs because of the diversity of development by different people in different regions without having to come from the same source. Different styles spread across 13,000 islands in Indonesia (Debbie, 2010)

Pencak Silat is formed before Indonesians Independence and participation in helping the independence of this republic of Indonesia. Pencak Silat also entered in category of sport in Indonesia because Pencak Silat embrace the element between artistry, culture and sport. Pencak Silat is also a reflection of Indonesia because it contains philosophical values. Performances in Indonesia that embrace the culture now begun to fade and are rarely encountered. Pencak Silat is not only for self defense but can be published in its form. In South Korea has developed taekwondo as a show, why Indonesia, which have obviously have its own characteristic in martial arts which have many moral value can not be exposed well and introduce into public.

The advancement of science, technology, and art (IPTEKS) makes social conditions more advanced. The society said this takes a lot of entertainment modern and interesting. In this contemporary era, performances (performance) can manifest in various types, shapes and contexts. As a broad spectrum, performance as a category can consist of rituals, games, sports, popular entertainment, performing arts (theater, dance, music) and performances of daily social, professional, gender, race and social class and various representations and constructions Action in the media and internet. (Andra, Purnawan, 2015)

How cultural consumption, mental state, structure, interpretation, power, social relations and institutions are conceptualized, moved, and changed in the 'art universe'. (Simatupang, lono. 2013).This cultural embodiment, achieved through body techniques, trains a set of dispositions of the

body operating within the individual. (Ian Douglas Wilson, 2002). Theatre modern Indonesia is product of Indonesian city culture which is pluralistic, economical, and modernist resulted in demand of theater form which according to its cultural aspiration. (Sulastianto, harry, and other. 2006). Pencak is an attacking and defensive movement in the form of rhythmic dance performed in accordance with

traditional custom, which is usually performed in public Silat is the essence of Pencak, knowledge of fights or self-defense that is lethal that can not be done in public (In Murhananto, 1993)

From the quotation can be understood that Pencak Silat movement pattern is almost the same as dancing movement. This can be used as a reason for Pencak Silat can emerge as an entertaining art bustle. Indonesian society today tend to like new things. Their assumption that culture and art is plebeian and unattractive. Pencak Silat with various elements that exist, art, action, attraction, moral message, is very suitable to be made into a show. In addition to preserving a culture, many benefits can be gained. Such as attracting foreign tourists, to see the show. And automatically more tourists will increase the country's foreign exchange earnings.

3. Method

This research is qualitative descriptive research. Observations will be made by looking at the phenomenon of Indonesian society today, and the tendency of interest in the performance element. As well as conducting interviews with several people, with direct interviews and questionnaires. Such as Pencak Silat trainers, Pencak Silat practitioners, sports observers, some martial arts college members, some public people. The interview will be conducted in the area of Semarang State University and Wonosobo district.

References

[1] In Murhananto, Inaugurating Pencak Silat, Puspa Swara, Jakarta, 1993, p. 1-2
[2] Debbie, Clark. 2010. *What Is Pencak Silat.* http://southerncrossbujutsu.com.au/pencak-silat/what-is-pencak-silat.aspx. 2010
[3] Wilson, Ian Douglas. The Politics of Inner Power: The Practice of Pencak Silat in West Java. School of Asian Studies, 2002 ; vol: xx-x.
[4] Sulastianto, Harry, and other. 2006. seni budaya untuk kelas xii sekolah menengah atas". Bandung : Grafindo media pratama. Vol 3 : page 45.
[5] Andra, Purnawan. 2014. *Mempertimbangkan (ulang) Seni Pertunjukan.* http://www.kompasiana.com/purnawan_andra/mempertimbangkan-ulang-seni-pertunjukan_54f84ae4a333112e1f8b5477, accessed on 29 July 2017.
[6] Simatupang, Lono. 2013. *Pergelaran – Seni Mozaik Penelitian Seni-Budaya.* Yogyakarta: Jalasutra. Page xiii
[7] Sulastianto, Harry, and Other. 2006. *Seni Budaya Untuk Kelas XII Sekolah Menengah Atas".* Bandung : Grafindo Media Pratama. Vol 3 : 45

ISBN 978-616-278-391-3

ACPES 2017
The 3rd International Conference on Physical Education, Health and Sport
ASEAN Council of Physical Education and Sport
"Best Practice for ASEAN+ Community: Enhancing Physical Activity, Physical Education, Sport, Health and Recreation"
2 - 5 September 2017
Saen Palm Convention Hall, Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom,Thailand
Hosted by: Kasetsart University

ACPES81-Full

LANGUAGE IN FITNESS
A Comparative study between conventional language teaching and CBI language teaching

Fatona Suraya, S.Pd., M.Pd.Alma Saske Amidar,Muhammad Arif Ali, S.Si., M.Sc. Gustiana Mega Anggita, S.Pd., M.Or. Prof. Dr. Sugiharto M.S., Liska, S.Pd., M.Pd.

Semarang State University, Central Java, 50229, Indonesia

Abstract

This research is a comparative study method aims to determine the influence of CBI model toward students' performance as an aerobic instructor. The strategy that is able to connect English and study subject is Content Based Instruction (CBI), because in CBI students are taught and studied the subjects using English, so that consciously or not they learn English. This study uses the English for Specific Purposes (ESP) approach. The purpose of this research is to evaluate the difference of influence between CBI and conventional learning model on aerobic aerobic performance of student English. This research is a comparative study method using random sampling technique. It was conducted in Unnes and Unwahas with total sampling 40 of Unnes and Unwahas students. They were grouped into 2 groups; the experiment group was taught by CBI method and the control group were taught using conventional method. The result of this research are : There is a difference of influence between CBI and conventional learning model on student aerobic english performance. Students taught by CBI learning models perform better than those taught by conventional learning.

1. Introduction

In Indonesia English is one of the subjects taught from elementary school until senior high school and Indonesian students have studied English for 12 years on average. However, many of the students are still unable to speak English fluently. This phenomenon should be translated as a failure of the English education system (Feng, 2007:150). With this fact, the university should take care and provide a more effective example of English teaching. The teaching of English must related to the talent and academic of students. In the curriculum of IKOR, there is an English course 2 sks and is given only to the first semester students. Limitations of time that are inversely proportional to the competency standard to be taught is an old problem. Competency standard can only be achieved if other courses of expertise support it. English as an International language is the main tool capable of delivering studies program in IKOR to be able to compete in international level.

ISBN 978-616-278-391-3

The strategy that is able to connect English and course study subject matter is Content Based Instruction (CBI), because in CBI students are taught and studying the subjects using English, so that consciously or not they learn English. The question guiding this research is what is the influence of CBI model toward students' performance as an aerobic instructor? The purpose is the influence of CBI model toward students' performance as an aerobic instructor.

Similar research has found that there is a difference in the effect between the CBI learning model and the conventional learning of the student performance as an aerobic instructor (suraya et al.: 2016). ESP's approach should be applied to address the issue of English education. English for Specific Purposes (ESP) or English for specific purposes is teaching and learning English as a foreign language where the main purpose of the learner is to be able to use English in accordance with the competencies of the learners (Paltridge & Starfield, 2013, p.2). The emphasis is on adjusting the teaching materials to the context to whom and for what purpose the material is given (Belcher, 2009 : 3).

The purpose of this research is to evaluate the difference of influence between CBI and conventional learning model on aerobic performance of student English. The benefit of this research is to explain the difference of influence between learning model with high english ability and low english language ability.

2. Experimental Work

This research is a comparative study method using random sampling technique. It was conducted in Unnes and Unwahas with total sampling 40 of Unnes and Unwahas students. They were grouped into 2 groups; the experiment group was taught by CBI method and the control group were taught using conventional method. The research last for 6 weeks, with duration 2 x 60 minutes per meeting. The pre-test is PBT Test and the post test is Instructions from aerobic instructors, the hypothesis guiding this research is whether or not there is a difference between CBI and conventional learning models on aerobic English performance.

3. Results and Discussion

3.1 Normality Test Based on Learning Model

Tabel 3.1.1 Tests of Normality

	Learning model	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Performa Senam Aerobic	CBI	,181	10	,200*	,924	10	,391
	Conventional	,230	10	,145	,934	10	,491

*. This is a lower bound of the true significance.

ISBN 978-616-278-391-3

In the table above shows the results of testing the normality of aerobic dance performance data based on the learning model. In the CBI learning model, aerobic exercise performance data by normality test with Kolmogorov-Smirnov has a significance value 0.200> 0.05 and according to normality testing with Shapiro-Wilk has a significance value 0.391> 0.05. In the conventional learning model, aerobic exercise performance data according to normality testing with Kolmogorov-Smirnov has a significance value 0.145>0.05 and according to normality testing with Shapiro-Wilk has a significance value 0.491>0.05. Because all have a significance value >0,05 so, can be concluded aerobic performance data based on normal distributed learning model has a normal distribution.

3.2 Tests of Between-Subjects Effects

Tabel 3.2.1 Tests of Between-Subjects Effects

Variabel Dependent: Performa Senam Aerobik

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	194,200[a]	3	64,733	4,021	,026
Intercept	21912,200	1	21912,200	1361,006	,000
Model	168,200	1	168,200	10,447	,005
Ability	24,200	1	24,200	1,503	,238
Model * Ability	1,800	1	1,800	,112	,742
Error	257,600	16	16,100		
Total	22364,000	20			
Corrected Total	451,800	19			

a. R Squared = ,430 (Adjusted R Squared = ,323)

a. Aerobic Performance Test Based on Learning Model

- Hypothesis

Ho: there is no difference between CBI and conventional learning model on student aerobic english aerobics performance
H1: there is a difference between CBI and conventional learning model on student aerobic english aerobics performance

b. Testing Criteria

If the value of significance> 0.05, then Ho is accepted
If the significance value is <0.05, then H1 is accepted

c. Conclusion

The value of significance in the learning model is 0.005 <0.05, then H1 is accepted. It can be concluded there is a difference between CBI and conventional learning model on aerobics performance of student english.

3.3 Discussion

The teaching of subject matter in this aerobics English has been proven able to improve the ability of both the ability of subject matter and language. Stoller who discloses that CBI prioritizes the needs of both the language students and the taught disciplines (Stoller, 2004). Teaching English related to disciplinary content is believed to be able to better prepare students in the academic, because the academic material being taught is also studied in English language material, language theory in language classes and taken to practice in class . According the findings of previous studies which reveal that combining content with language can improve both the content and language performance (Demirdirek, 2010; Huang, 2011; Stoller, 2004; Song, 2006) CBI-based aerobic teaching can improve both student aerobic performance and students' English ability.

In CBI the language serves as a medium of instruction, expose to language is emphasized in the classroom, and lecturers are required to master two languages namely local languages and English (Swan & Johnson, 1997). There for, students basic language skills have no effect on the outcomes because CBI's own learning process focused on content and language-related content will increase students' understanding of both scientific and linguistic content. Plus the principle of bilingual-capable teachers who are able to assist the transfer of knowledge and transfer of language from mother tongue to English.

4. Conclusions

There is a difference of influence between CBI and conventional learning model on student aerobic english performance. Students taught by CBI learning models perform better than those taught by conventional learning models.

References

[1] Belcher, D. D. (2009). *English for specific purposes in theory and practice*. Ann Arbor: University of Michigan Press.

[2] Demirdirek, N., Özgirin, N., & Salatacı, R. (2010). E-documentaries in content-based instruction (CBI) in an academic EFL setting. *Procedia - Social and Behavioral Sciences, 3*, 203-209.

[3] Feng, A. (2007). *Bilingual education in China: Practices, policies, and concepts*. Clevedon: Multilingal Matters.

[4] Paltridge, B., & Starfield, S. (2013). *The handbook of English for specific purposes*. Malden, Ma.: John Wiley & Sons.

[5] Stoller, F. L. (2004). 12. Content-Based Instruction: Perspectives On Curriculum Planning. *APL Annual Review of Applied Linguistics, 24*.

[6] Swain, M., & Johnson, R. K. (1997). Immersion education: A category within bilingual education. InR. K. Johnson & M. Swain (Eds.), Immersion education: International perspectives (pp. 1–16). Cambridge: Cambridge University Press.

ISBN 978-616-278-391-3

ACPES 2017
The 3rd International Conference on Physical Education, Health and Sport
ASEAN Council of Physical Education and Sport
"Best Practice for ASEAN+ Community: Enhancing Physical Activity, Physical Education, Sport, Health and Recreation"
2 - 5 September 2017
Saen Palm Convention Hall, Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom,Thailand
Hosted by: Kasetsart University

ACPES82-Full

APPLIED TRADINAL GAMES PROGRAM FOR PHYSICAL FITNESS IMPROVEMENT IN ELEMENTARY STUDENT.

S. Taraporn,[*1] C. Chairat,[2] P. Arporn[3]

[1] *Mahasarakham University, Department of Health and Sport Science, Faculty of Education,44000, THAILAND*
[2] *Mahasarakham University, Department of Health and Sport Science, Faculty of Education,44000, THAILAND*
[3] *Mahasarakham University, Department of Health and Sport Science, Faculty of Education,44000, THAILAND*

Abstract

The objective of this study was to compare the effect of applied traditional program on physical fitness in elementary school. The samples of this study were 16 elementary children, aged 11 years old by using cluster random sampling. The materials were applied traditional program and Physical Fitness Test for Thai Children aged 7-18 years old. Which composed of five test items; Running 1,200 meters, 60 Second Sit Up, Standing Board Jump, Sit and Reach and Skinfold Thickness. The statistics data analyzed was used descriptive statistics and T Square -Dependent (TQ) in order to compare the difference between pre and pro test. The research found that the body composition, leg muscle strength, abdominal muscle strength and endurance, and muscle flexibility at pre and post-test were found at significant ($p<.05$). However, the cardiovascular endurance between pre and pro test were not significant. From the results, it shown that applied traditional program could be improved body composition, leg muscle strength, abdominal muscle strength and endurance, and muscle flexibility. While the cardiovascular endurance need to develop in the further.

Keywords: Applied Traditional Games, Physical fitness, Elementary children

1. Introduction

Elementary students have the development of physical, emotion and intelligence to be ready for their friend society. They can understand and learn a lot of things around them. Their behavior concerns with health and community change. Although these children have pretty well of physical development, they cannot distinguish and completely understand about their health if it is good or not [1]. Therefore, their behavior is in risk of having bad health, such as always have snack and soft drink, addict to smart phone and computer games, decrease physical activity and exercise [2]. Students who do not have an exercise will be weak and get low immunity, so they probably face

the risk factors of illness. When they get sick, it is hard to recover and may get in current disease also. Health problems can remain until they grow up. The children who do not often exercise will get less all parts of physical fitness than the children who always do it [3].

Physical fitness is a state of all health elements. To have good physical fitness helps the children work effectively, perform activities in daily life very well and they will grow up healthy [4].
The healthy children will have a satisfied development of physical, and they can be aware of their health conditions. For this reason, it is important to improve and reinforce the children's physical fitness in order to abate the risk factors that make children get sick [5]. Physical fitness consists of cardiovascular endurance, the strength and endurance of the muscle, flexibility and body composition. These components of physical fitness can be improved and preserved by doing exercise regularly [6]. Particularly, it is very significant for element students since they are growing up, they can develop their growth like physical. So, exercise helps them develop muscles strength and endurance. The organs that coordinate with respiratory and circulatory system will work efficiently. The figure size will get suitable proportion. The basic movement will be agile [7]. And exercise can help their mental and emotional development as well. Children will enjoy exercising, and it protects them from aggressive and dispels their anxiety which caused from many reasons. And the children can have social development as well. The exercise and sport help them learn rules and the spirit of sports, and take one for team. For cognitive development, children will learn how to use their esprit to make a decision and adapt to changing conditions very easily [8].

Traditional game is another exercise activity for children; it helps them develop their physical fitness. This is because the games have the simple rules, and children do not need many sport items and they will enjoy them [9]. Traditional games can support players' health for all parts of body and make use of their time. In addition, some of games help them think fast and strengthen physical fitness and mental health stably [10]. Playing games is very important for children because it is the method that can respond to their need. They will show their covert behavior and ability while they are playing.

From the studying, it indicates that traditional games are versatile and it is suitable to make them as the exercise activity for children. Nevertheless, the research found that traditional games as the exercise activity has the traditional rules and patterns, and the games also develop some parts of physical fitness. Therefore, the researcher had an idea about studying of applied traditional games program to support the elementary students' physical fitness by adapting with sports sciences knowledge into traditional games. This study wants to know the effect of applied traditional games program for physical fitness improvement in elementary students. It can be proved if it can support their physical fitness in term of cardiovascular endurance, the strength and endurance of the muscle, flexibility and body composition or not. Furthermore, it can educate children to realize and appreciate the significance of exercise so that they will be the healthy and good physical fitness.

2-5 September 2017
Saen Palm Conventiona Hall
Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom, Thailand
ISBN 978-616-278-391-3

2. Research Methodology

This research is an experimental study, and the population in this research is the elementary students in Pratom 4-6, Ban Popan school (Popan rasbumroong), Popan subdistrict, Muang district, Roi-et. The subjects consisted of 16 people, aged 11 years old by using cluster random sampling. The subjects and parents can make the decision to willingly participate in this research and leave this research all the time they need. The information that was received from the subjects is a secret and used in this research only. Then, they had been practiced with applied traditional games program for 8 weeks, 3 days a week on Monday, Wednesday and Friday, for an hour a day. Data analysis was used descriptive statistics in term of mean, standard deviation and comparing the differences before and after practicing with T Square-Dependent statistics. The research instrument for practicing was applied traditional games program. And the tool for testing was the Skinfold Thickness, Standing broad jump, 60 seconds Sit-ups, Sit and Reach and Running 1,200 meters.

3. Results and Discussion

Results

The effect of exercise applied traditional games program for physical fitness improvement in elementary students pre-test and post-test, the results show in table 1

Table 1 The Average ($\overline{X}$) and standard deviation (S.D.) of the elementary students' physical fitness pre-test and post-test

Variables	Pre-test		Post-test	
	$\overline{X}$	S.D.	$\overline{X}$	S.D.
5 elements of physical fitness				
Body Composition	20.54	5.60	19.30	5.41
muscles strength and endurance				
- Strength of the legs muscle (cm.)	126.44	13.79	133.38	12.55
- Strength and endurance of the abdominal muscle (once / 60.sec)	24.69	8.27	30.38	7.33
Flexibility – lower part of body (cm.)	4.94	4.39	7.81	3.90
Cardiovascular endurance (min)	10.21	2.53	9.88	2.55

As shown in Table 1, found that the results of the subject's physical fitness Post-test have the better mean, including Body Composition ($\overline{X}$ =19.30, S.D.=5.41), Strength of the legs muscle ($\overline{X}$ =133.38, S.D.=12.55), Strength and endurance of the abdominal muscle ($\overline{X}$ =30.38, S.D.=7.33), Flexibility–lower part of body ($\overline{X}$ =7.81, S.D.=3.90). However, Cardiovascular endurance Post - test is still not better in terms of development comparing with Pre-test ($\overline{X}$ =9.88, S.D.=2.55)

ISBN 978-616-278-391-3

To compare the effect of exercise with applied traditional games program for physical fitness improvement in elementary students pre-test and post-test 8 weeks, the results show in table 2.

Table 2 The comparison of the elementary students' physical fitness within the subject group in pre-test and post-test

Criterion	Value	Hypothesis df	Error df	F	P-value (sig)
Pillai's Trace	.954	5.000	11.000	45.501	.001
Wilks' Lambda	.046	5.000	11.000	45.501	.001
Hotelling's Trace	20.682	5.000	11.000	45.501	.001
Roy's Largest Root	20.682	5.000	11.000	45.501	.001

*p<.05

As shown in Table 2, comparison between pre-test and post-test the elementary students' physical fitness there was significant difference (p<.05)

To compare the effect of exercise with applied traditional games program for physical fitness improvement in elementary students separating into sub variables.

Table 3 the comparison of the elementary students' physical fitness separating into sub variation pre-test and post-test in the subject group.

Variables	Type III Sum of Squares	df	Mean Square	F	P-value (sig)
5 elements of physical fitness					
Body Composition	12.326	1	12.326	33.075	.001
muscles strength and endurance					
- Strength of the legs muscle (cm.)	385.031	1	385.031	83.138	.001
- Strength and endurance of the abdominal muscle (once / 60.sec)	258.781	1	258.781	27.585	.001
Flexibility – lower part of body (cm.)	66.125	1	66.125	49.906	.001
Cardiovascular endurance (min)	.894	1	.894	3.162	.096

*p<.05

As shown in Table 3, the subject group's physical fitness, Body Composition (F=33.075, P=.001), Strength of the legs muscle (F=83.138, P=.001), Strength and endurance of the abdominal muscle (F=27.585, P=.001) and Flexibility – lower part of body (F=49.906, P=.001) pre-test and post-test there was significance difference, However, the cardiovascular endurance is not different (F=3.162, P=.096).

Discussion

From the results of study using applied traditional games program for physical fitness improvement in elementary students found that the mean of subjects group's physical fitness such as body

composition, legs muscle strength, strength and endurance of the abdominal muscle and flexibility – lower part of body had increased for protest better than pre-test. However cardiovascular endurance post-test were not improved, compared to pre-test. But the mean is likely to be better. This is the reason why this research has the results like this. Because of the subjects group has done exercise continually and incresing the intensity of exercise. It is possible that these traditional games can help building the strength and endurance of the muscle, flexibility – lower part of body body composition and cardiovascular endurance increased.[11],[12]. The result is similar to the research of Khumpai Sujin [13] had development the program of traditional games to support the elementary students' physical fitness. And the results found that traditional games were suitable to use for improving physical fitness. Moreover, physical fitness experimental results found that the mean of elementary students' physical fitness in body mass index, 6 0 seconds sit-ups, 30 seconds push-ups, trunk forward flexion, shuttle run and long distance run in pro-test were significantly increased than pre-test at level .01. Furthermore, there is the research results of Thanad Boonitsaraseree [14] had compared the achievement of the elementary students' PE study that taught by traditional games and regular lesson. The research results found that the model group's PE study achievement which used traditional game is significantly higher than regular lesson at level .05. Considering in each part found that knowledge, skill and the fitness of counting times/minutes of sit-ups, trunk forward flexion, specified distance run and students' attitude and moral by using traditional games is significantly higher than regular lessen at level .05.

From the comparison, the effect of applied traditional games program for physical fitness improvement in elementary students between pre-test and post-test after 8 weeks found that there was significant difference in the subjects group's physical fitness between pre-test and post-test. This is because the subjects group did exercise with applied traditional games program, and also this exercise program is adapted with sports sciences into traditional games, considering the element of all parts of fitness. Therefore, the games are specified methodically to be compatible with the subjects group. It is holden to Supit Samahito's exercise principal to earn benefits for all body parts. This principal has the motion, movement, time and suitable weight which affect supporting the strength, the endurance and flexibility and impel respiratory and circulatory system [15],[16]. It conforms to Hakimeh Akbari [17] had studied about leg strength development and motor skill by using traditional games for the boys, 7-9 year old. The research results found that play traditional games group has the better leg strength and motor skill mean after practicing. Moreover, Fatemeh Pasand's [18] had studied about traditional games to affect motor development of elementary female students. The results found that the subjects group who practiced with traditional games has the better mean of muscles strength and balance. Therefore, it impacted to the better improvement of motor development.

Comparing in each variable was tested, the subjects group's physical fitness in terms of Body Composition, Strength of the legs muscle, Strength and endurance of the abdominal muscle and Flexibility – lower part of body between pre-test and post-test were significant difference.

ISBN 978-616-278-391-3

This is because traditional games programs are the activities consisting of movement pattern, motion and suitable intensity to make the best benefit in exercise for students. It is one of the methods to help and support the students who exercised with traditional games program get the better physical fitness [19]. Children should do exercises or physical activities in the moderate level of exercise to get exhausted for at least an hour, 3-5 days a week. It impacts to children's growth and development. While cardiovascular endurance were not significant difference between pre and post-test because exercising with traditional games program in the subjects group for 8 weeks is probably not adequate to improve their cardiovascular endurance obviously. Moreover, practicing to increase cardiovascular endurance, they need to think over the food that give them suitable energy also [20].

4. Conclusions

Applied traditional games program can be supported and developed physical fitness in elementary students. It should be the exercise activities for children, but some games need to be seriously careful because elementary students want to play and overcome. Then sometime they may be careless. Guardian therefore has to fix the strict arrangements in order to protect the mistake and accident in activities.

References

[1] Saengprasert, P. Supporting people health in each age in Thailand. Technology and Science Journal. 2013; 21-7.
[2] Boonnarakorn, S. Supporting holistically health in all ages. Bangkok. 2009; 78.
[3] Sanguanrangsirikul, S. Exercise advices for children (Age 2-12). Division of Physical Activity and Health, Department of Health, Ministry of Public Health. 2012; 1.
[4] Thai Health Promotion Foundation. Thai adolescent 7-18's physical fitness test and benchmark.Nonthaburi. 2012; 3.
[5] Chanhom, S. Child Psychology. 2nd ed. Bangkok. 2015; 32.
[6] Samahito, S. Thai adolescent 7-18's physical fitness test and benchmark. Nonthaburi. 2013;18.
[7] Kitboonchoo, K. Exercise advices for heavyset people. Division of Physical Activity and Health, Department of Health, Ministry of Public Health. 2011; 23.
[8] Meelai, W. Emotional Quotient and child. Exellence Center. Bangkok. 2014; 8.
[9] Panatkoon, W. Thai children's games and scholling. Bangkok. 2014; 17.
[10] Khoohapinan, Chawewan. Thai games. Educational guidance paper. Ministry of Education. Bangkok. 2007; 63.
[11] Khwanboonchan, R. Sports sciences and being coach. How to apply sports sciences to improve Thai student athlete team workshop guide. Office of Sport and Recretion Development. 2008; 48.
[12] Krabuanrat, Chareon. How to strengthen muscles. Bangkok. 1997.

[13] Sujin, K. Traditional games development to support the elementary students' physical fitness. Master of Education Program in Curriculum and Instruction. Khonkean University.2012.

[14] Boonitsaraseree, T. Traditional games result achieved the Pratom 3 students' PE study, The Demonstration School. Master of Education in Curriculum and Instruction, Valaya Alongkorn Rajabhat University under the Royal Patronage. Patumthani. 2014.

[15] Department of Health, Ministry of Public Health. Exercise for children. Nonthaburi.2015; 9.

[16] Prakanta, P. and Pratthanapon, S. Children 6-12's physical fitness. Bulletin of Chiangmai Associated Medical Sciences. 2012; 45-3.

[17] Hakimeh Akbari at al. The Effect of Traditional Games in Fundamental Motor Skill Development in 7-9 Year-Old Boys. Iranian Jour of Pediatrics. 2011; 123-129.

[18] Fatemeh Pasand at al. Impact of Traditionnal Exercises on Perceptual-Motor Development in Elementary School Girl Students. Indian Journal of Fundamental and Applied Life Sciences. 2014; 1297-1302.

[19] National Association for Sport and Physical Education. Status of Physical Education in the USA. Reston, VA: American Alliance for Health, Physical Education, Recreation and Dance. 2012.

[20] Maungmee, P. Physiology of exercise. Physical education, Faculty of Physical Education Srinakharinwirot university.1984; 93.

ISBN 978-616-278-391-3

ACPES 2017
The 3rd International Conference on Physical Education, Health and Sport
ASEAN Council of Physical Education and Sport
"Best Practice for ASEAN+ Community: Enhancing Physical Activity, Physical Education, Sport, Health and Recreation"
2 - 5 September 2017
Saen Palm Convention Hall, Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom,Thailand
Hosted by: Kasetsart University

ACPES85-Full

PERCEIVED RISKS LEVEL IN OUTDOOR ADVENTURE EDUCATION PROGRAMS: VIEWS OF PARTICIPANTS AND INSTRUCTORS.

Mawarni, M.,[1] M. Azmi, M. A[2]

[1] *Faculty of Education, University Teknologi MARA (UiTM), Puncak Alam Campus, 42300 Bandar Puncak Alam, Selangor Darul Ehsan, MALAYSIA*

[2] *Faculty of Education, University Teknologi MARA (UiTM), Puncak Alam Campus, 42300 Bandar Puncak Alam, Selangor Darul Ehsan, MALAYSIA*

Abstract

Numerous studies have been conducted on risk perception for the purpose of understanding the reasons behind individuals' thoughts and actions regarding risks. Risk perception could result to injuries or fatalities when the perceptions or judgments on any hazard are wrong and mistaken. However, disagreement on assessment and different risk perceptions often took place over the time among individuals especially between publics and experts. Therefore, this study was conducted to focus on the issues of risk perception on Outdoor Adventure Education (OAE) programs between experts and lay people which specifically referred to instructors and participants. The aim of this study was to explore the differences in risk perception on OAE programs between participants and instructors involved. Data from 210 respondents consisted of 174 participants and 36 qualified instructors were collected from several outdoor programs participated by public University students. Descriptive analysis and Independent t-test were used to analyse the level of participants and instructors' risk perception and the difference between OAE programs participants and instructors. The findings revealed that the level of risk perception among participants were average, while the level of risk perception among instructors were high. Additionally, there was a significant difference in risk perception towards OAE programs between participants and instructors. This means, respondents were found to have an elevated level of confidence regarding their skills for participating in OAE programs and instructors were driven by knowledgeable expectation of risks. Generally, the risk perception was affected by the risk constructs of knowledge of the risks, fear of the risk, personal risk, benefits vs. risks, personal control, peer influence, admiration, personal challenge and perception of skill. The implications and recommendations of the study were highlighted which were hopefully may provide some overviews in preparing and providing better OAE programs.

Keywords: risk perception, Outdoor Adventure Education, participants, instructors,

1. Introduction

Outdoor Adventure Education (OAE) is a variety of teaching and learning activities and experiences involving a close interaction with an outdoor natural setting, usually containing elements of real or

perceived danger or risk, which can be influenced by the actions of the participants and circumstances [1]. Of late, there were many high profile incidents and fatalities cases associated with outdoor education, outdoor recreational activities and adventure tourism activities and were marred by incidents and fatalities as reported through media. This scenario is worsened by the death that occurred in a number of outdoor education programs organized by some higher education institutions. All of these incidents have received so many negative criticisms from publics over the safety of outdoor education program. Mostly the providers and organizers will be blamed for the reason of inadequate control of the elements of risk in their outdoor education programs due to negligence, unsafe location for activities, natural disasters and low quality of coaching. So, this study investigates the risk perception of outdoor adventure program from the perspectives of participants as well as the instructors.

Risk perception can sometimes cause an accident or fatalities when the perceptions or judgments on hazard are wrong and mistaken. Many people like to take risks in the challenging and adventurous activities however, most people are not ready to cope with an accident or fatalities. Most people knew about the risks they took [2] but people tend to be persuaded that the risks appeared were not for them but for others. The individuals' understandings and views on risk are different and a lot of comparisons of risk perception have been made in the previous studies. Numerous studies have been conducted related to risk perception between lay person and expert [3]-[7] Thus, this study views risk from both the participants in higher learning institutions and the experts.

2. Method

A sample of 210 respondents has been chosen through a purposive sampling technique to complete the questionnaires regarding risk perception on OAE programs. Statistical procedures such as descriptive statistics and independent t-test have been used to analyse the collected data. The level of participants and instructors risk perception were identified by ranking the range of five-point Likert Scale data into three levels of risk perception score; Low: 1-2.33, Medium: 2.34-3.67, High: 3.68-5. An Independent Sample T-test was used to measure a significant difference in risk perceptions between OAE programs participants and instructors.

3. Results and Discussion

Table 1: Participants' level of risk perception

Risk Construct	Mean	Std. deviation	Indicator
Knowledge of the risks	3.551	.7791	Average
Fear of the risk	2.885	.9302	Average
Personal risk	2.971	1.1092	Average
Benefits vs. risks	3.810	.8423	High
Personal control	3.408	.8602	Average
Peer influence	3.695	.9087	High
Admiration	3.689	.8841	High
Personal challenge	3.839	.7659	High

ISBN 978-616-278-391-3

Perception of skill	3.821	.8717	High
Risk perception	3.519	.3966	Average

Table 1 indicates the complete finding of participants' thought and perception regarding the risk constructs namely, knowledge of the risks, fear of the risk, personal risk, benefits vs. risks, personal control, peer influence, admiration, personal challenge and perception of skill and the level of participants' risk perception on OAE programs. The score of the risk constructs are ranged from average to high which the score of knowledge of the risks (mean=3.551, SD=.7791), fear of the risk (mean=2.885, SD=.9302), personal risk (mean=2.971, SD=1.1092) and personal control (mean=3.4080, SD=.86026) were average. While, the score for benefits vs. risks (mean=3.810, SD=.8423), peer influence (mean=3.695, SD=.9087), admiration (mean=3.689, SD=.8841), personal challenge (mean=3.839, SD=.7659) and perception of skill (mean=3.821, SD=.8717) were high. The overall result of the analysis revealed that the level of participants' risk perception on OAE programs is average as the mean score displayed mean=3.519, SD=.3966.

Based on the ranking of the risk constructs among the participants, the highest score was personal challenge. Then, followed by perception of skill, benefits vs. risks, peer influence, admiration, knowledge of the risks, personal control, personal risk, and the lowest was fear of the risk. Meanwhile, the ranking of risk constructs among the instructor showed a slight difference when the highest score was benefits vs. risks, followed by perception of skill, peer influence, personal control, knowledge of the risks, admiration, personal challenge, personal risk, and the least score was fear of the risk (Table 2).

Table 2: Instructors' level of risk perception (n=36)

Risk Construct	Mean	Std. Deviation	Indicator
Knowledge of the risks	3.888	.7847	High
Fear of the risk	2.611	1.1282	Average
Personal risk	2.888	1.1899	Average
Benefits vs. risks	4.305	.7490	High
Personal control	3.888	.7847	High
Peer influence	4.166	.8451	High
Admiration	3.861	.8992	High
Personal challenge	3.750	.8742	High
Perception of skill	4.222	.7215	High
Risk perception	3.731	.404	High

Indicator: Low: 1-2.33, Average: 2.34-3.67, High: 3.68-5

ISBN 978-616-278-391-3

Table 2 revealed the whole finding of instructors' thought and perception regarding the risk constructs namely, knowledge of the risks, fear of the risk, personal risk, benefits vs. risks, personal control, peer influence, admiration, personal challenge and perception of skill and the level of instructors' risk perception on OAE programs. Most of the risk constructs, namely knowledge of the risks (mean=3.888, SD=.7847), benefits vs. risks (mean=4.305, SD=.749), personal control (mean=3.8889, SD=.7847), peer influence (mean=4.166, SD=.8451), admiration (mean=3.861, SD=.899), personal challenge (mean=3.750, SD=.874) and perception of skill (mean=4.222, SD=.721) were perceived as high by instructors, except fear of the risk (mean=2.611, SD=1.128) and personal risk (mean=2.888, SD=1.189) which is perceived as average. The overall result of the analysis discovered that the level of instructors' risk perception on OAE programs was high as the score indicated in Table 2 is mean=3.731, SD=.404.

This study highlighted that knowledge of the risk can influence how the respondents perceived the risks and suggests that the more individuals knew about the risks the greater the level of risks they perceived. The finding also mentioned that both participants and instructors were not frightened to engage in OAE programs since they assumed that they were not personally at risk of injuring themselves. Both respondents also displayed the elevated level of confidence on their ability to competently involve in OAE programs though there were great challenges await in OAE programs.

Greater positive outcomes attained from OAE programs influenced the level of risk perception. Both respondents and instructors perceived that the benefits acquired from OAE programs were higher than the risks. Besides that, the level of risk perception was found to be increased when the personal control regarding the risks was increased. Additionally, the respondents believed that the participation in OAE programs was greatly influenced by friends. The respondents' involvement in OAE programs mostly because of their friends' influence as well and proposes that friends were likely to shape respondents' risk perception regarding OAE programs.

Table 3: Independent Samples Test

Designation	**N**	**Mean**	**Std. Deviation**	**t-test for Equality of Means**		
				t	Df	Sig. (2-tailed)
Participant	174	3.519	.3966	-2.913	208	.004
Instructor	36	3.731	.4048			

*T-tests significant is at .05 (2-tailed)

Table 3 reveals the finding of independent sample t-test which compares the level of risk perception between participants (mean=3.519, SD=.3966) and instructors (mean=3.731, SD=.4048). The finding indicates that there was a statistically significant difference between participants and instructors in risk perception on OAE programs since t(210)=-2.913, p=.004 (two-tailed). The significant value, (p=.004) is smaller than the alpha value (α = .05).

The finding of this study discovered that the risk perception between participants and instructors towards OAE programs was significantly different and revealed that the level of risks perceived by the participants was average and for the instructors, the risk perceived was high. The findings opposed

with the previous study [8] as they found that lay people perception of risk was higher and at the same time discovered that the level of risk perception among experts were lower.

There are many reasons of the disagreement between participants and instructors regarding risk perception on OAE programs which includes misunderstanding, miscommunication and misinformation. Further, both participants and instructors might be considered to have a different definition regarding the risk. Their definition of risk could be influenced by their level of knowledge of the risks and experience. Besides that, the element of trust can be considered as one of the factors that may influence their risk perception. It is believed that participants would put their trust more on their instructors as they assumed that the instructors can protect them from dangers and hazards. Previous researcher proposed two types of expert roles known as protectors and promoters [9]. Protectors' role is to warn people about the risk that they do not recognize or neglect from protecting themselves with adequate potency. While, since people are too much concerned about the risks, promoters' role is to convince people that the risks are not so great and it is certainly worth to be taken. The current study also agreed with the findings of the previous study that the risk perception between experts and laypeople were different. Experts were driven by knowledgeable expectation and therefore deal with the likelihood of risk and the scale of its consequences while non-experts' risk assessments were based on their rationality [10].

In this study, respondents were found to have a prominent level of confidence regarding their skill for participating in OAE programs and simultaneously, their perception of risk on OAE programs was high as well. This means that even though the respondents were confident with the skills that they have, but when dealing with the uncertainty, the respondents were aware with the risk since [11] OAE cannot escape from risk and danger as one of the crucial elements that make up the popularity and success of adventure programming is risk and the risk increases in the presence of danger.

4. Conclusions

As for recommendations, the risk regarding OAE programs should be highlighted to the participants by the instructor as the study found that the knowledge of risk among participants was lower than the instructors. The programs itself should be beneficial and well-adjusted according to the level of participants' competency if they can reach the peak adventure of OAE programs. The ratio of the instructors to the participants play an important part as the number of instructors that are required should be enough to control a group of participants. Besides that, local communities should be involved in OAE programs if needed as they are the one who have the knowledge and familiarities regarding the site for outdoor learning. Other than that, the instructors themselves should do a risk analysis management before implementing any activities for OAE programs.

References

[1] Ewert, A. W., & Sibthorp, J. (2014). *Outdoor adventure education: Foundations, theory, and research.* Champaign, IL: Human Kinetics.

ISBN 978-616-278-391-3

[2] Sjöberg, L. (1999). Risk perception by the public and by experts: A dilemma in risk management. Research in Human Ecology, 6(2), 1-9.

[3] Slovic, P. (1997). Trust, emotion, sex, politics, and science: Surveying the risk assessment data field. Psychological Perspectives to Environmental and Ethical Issues in Management, 277-313.

[4] Jones, M. (2011). *The influence of perceived risk on participation in outdoor education activities by pre-teen age schoolchildren in New Zealand*. Master's Thesis. New Zealand Tourism Research Institute. Auckland University of Technology. New Zealand.

[5] Chowdhury, P. D. & Haque, C. E. (2011). Risk perception and knowledge gap between experts and the public: issues of flood hazards management in Canada. Journal of Environmental Research and Development, 5(4), 1017–1022.

[6] Garg, V. (2012). Risk perceptions of security and privacy risks online. Doctoral dissertation, School of Informatics and Computing, Indiana University.

[7] Elena, G., & Johnson, C. W. (2015). Laypeople's and Experts' Risk Perception of Cloud Computing Services. International Journal on Cloud Computing: Services and Architecture (IJCCSA), 5(4), 1–19.

[8] Elena, G., & Johnson, C. W. (2015). Laypeople's and Experts' Risk Perception of Cloud Computing Services. International Journal on Cloud Computing: Services and Architecture (IJCCSA), 5(4), 1–19.

[9] Sjöberg, L. (1999). Risk perception by the public and by experts: A dilemma in risk management. Research in Human Ecology, 6(2), 1-9.

[10] Garg, V. (2012). Risk perceptions of security and privacy risks online. Doctoral dissertation, School of Informatics and Computing, Indiana University.

[11] Priest, S., & Gass, M. A. (1997). Effective leadership in adventure programming. Champaign, IL: Human Kinetics.

ISBN 978-616-278-391-3

ACPES 2017
The 3rd International Conference on Physical Education, Health and Sport
ASEAN Council of Physical Education and Sport
"Best Practice for ASEAN+ Community: Enhancing Physical Activity, Physical Education, Sport, Health and Recreation"
2 - 5 September 2017
Saen Palm Convention Hall, Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom,Thailand
Hosted by: Kasetsart University

ACPES91-Full

IDENTIFICATION AND CHARACTERIZATION OF MULTIPLE INTELIGENCE AMONG HIGH SCHOOL STUDENTS: ITS IMPLICATION ON THE TEACHERS' PEDAGOGY

Edna B. Nabua, Ph.D.[1] Arlene P. Ramos, MAED[2]

[1] *MSU-Iligan Institute of Technology, Philippines*
[2] *MSU-Iligan Institue of Technology, Philippines*

Abstract

In the academe, the academic performance of the students is commonly assessed through summative test. However, more often than not, the efforts of both the students and the teachers are put into a dilemma. This scenario is due to the so-callled mis-match. This mismatch in the context of teaching-learning process means disparity of teaching strategy used by the teacher and the intelligence profile of the students.
The objective of this study is to determine the effect of identification and characterization of the intelligence profile of the high school students on the academic performance of high school students in the selected public high school of the Department of Education. Random sampling was made in selecting sampling groups within the selected public high school. Profiling of multiple intelligence was made among the elected samples. Academic performance of the students was compared before and after the characterization and identification was made. The number of strategies used by the teachers handling the students was also compared before and after the characterization and identification of their intelligence profile. Result showed that there is a difference in the academic performance of the students. The academic performance of the students before the identification and characterization of the multiple intelligence is lower than their academic performance after the identification and characterization of multiple intelligence was made. Statistically, the difference in the academic performance before and after identification and characterization is significant. It is recommended therefore that identification and characterization of multiple intelligence among high school students be made at the beginning of the school year for the teachers benchmarking in the teaching-learning process.

Keywords: academic performance, multiple intelligence, pedagogy

1. Introduction

Summative test are usually used to determine the students' level of understanding. The teachers then rate the students' performance based on the scores obtained. Literally, in

the teaching- learning process, the teacher usually introduced the concept for all students in a one-fits-all process. More often than not there is only one strategy for the whole class where students need to cope up.

With this scenario, very few will survive while a number planked. Is it the teacher that matter or the students (Nieto, 2004)? Well, in the teaching-learning process, both the teachers' strategy and the students' intelligence profile are to be considered if learning is desired in the process (Gardner, 1989).

It is in this light that this research study is conducted to encourage the teachers in the field to adopt the characterization of the students' intelligence profile as basis of their teaching strategy utilization. Specifically, the objective of the study is to emphasize the use of intelligence profile characterization among students. The effect of the intelligence profile characterization on the teachers' choice of teaching strategies was also identified and it also cited if there a significant difference on the performance of the students whose intelligence profile had been characterized from those whose intelligence profile are not characterized. Further, it also revealed if there is a significant difference on the teaching strategies used by the teacher before and after the characterization of intelligence profile

2. Methodology

One hundred students were purposively sampled from seven classes of a public high school in the Department of Education, School Year 2015-2016. The academic performance of the students for the First Quarter and Second Quarter was assessed. Classroom observation was also done and teachers were assessed on the number of strategies they applied in class for the First and Second Quarter. Profiling of the students' multiple intelligence was done before the onset of the Second Semester.

The eight teachers were exposed to mentoring. Teachers were oriented on the intelligence profile of their students and the ideal teaching strategies suited for the kind of intelligence the student possessed (Nieto, 2000). Students' intelligence profile was given to the teachers during the orientation of the teachers on the essence and importance of multiple intelligence profiling and the learning style preferred per intelligence. At the end of the second semester, the students' performance was assessed and the teachers were randomly observed in their classroom instruction throughout the second semester. The teachers' teaching strategies was also being noted. The number of the strategies used by the teachers and the performance of the students for the two semesters were compared. Average Mean Rating was used as statistical tool in treatment of the data gathered in the study. T- test was also used to determine the significant difference between two means.

ISBN 978-616-278-391-3

3. Result and Discussion

The Table below shows the teachers' number of strategies used during the first semester. It also shows the average rating of the sample per class for the First Semester of School Year 2014-
2015. . It further shows the teachers' awareness on the students' intelligence profile.

Table 1. Average Rating of Students Per Class During The First Semester

Teacher	Number of Samples	Number of Strategy Per Class	Students' Intelligence Assessed? Yes or No	Average Rating Samples
Teacher A	13	2	No	75.35
Teacher B	13	3	No	75.26
Teacher C	13	2	No	76.58
Teacher D	13	2	No	74.85
Teacher E	12	1	No	74.89
Teacher F	12	2	No	78.45
Teacher G	12	2	No	76.56
Teacher H	12	1	No	76.78

Result showed that teachers do not exactly know the intelligence profile of his students. The teacher simply used teaching strategy based on his comfort zone. The number of strategies used is very minimal. The students' performance is not good.

Table 2 shows the comparative strategies and the average rating of the samples for the first semester and the second semester.

ISBN 978-616-278-391-3

Table 2. Comparative Average Raring of Students' Performance in Two Rating Period

Teacher	Number of Students	Number of Strategy		Students' Intelligence Assessed? (Yes or No)		Ave. Rating of 13 Students	
		1st Semester	2nd Semester	1st Semester	2nd Semester	1st Semester	2nd Semester
Teacher A	13	2	5	No	Yes	75.35	79.67
Teacher B	13	3	4	No	Yes	75.26	78.85
Teacher C	13	2	5	No	Yes	76.58	82.54
Teacher D	13	2	6	No	Yes	74.85	79.74
Teacher E	13	1	7	No	Yes	74.89	83.34
Teacher F	13	2	5	No	Yes	78.45	80.39
Teacher G	13	2	6	No	Yes	76.56	84.66
Teacher H	13	2	8	No	Yes	76.78	79.89

Figure 1 shows the number of strategies per class of samples. The number of strategies for the first semester is compared with the number of strategies used for the second semester.

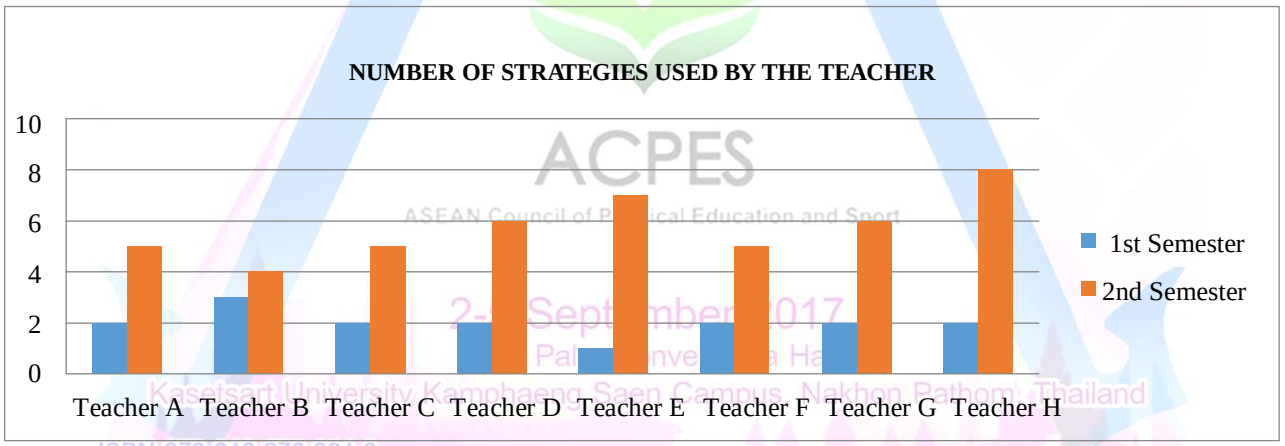
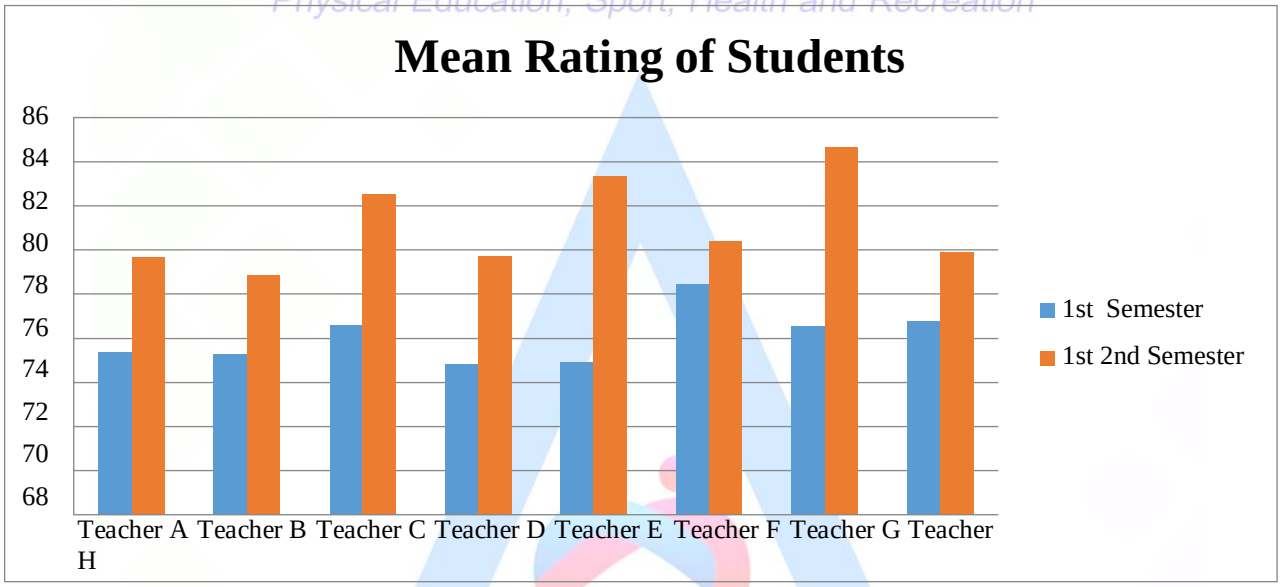


Figure 1. Number of Strategies Used By the Teacher Per Class of Sample

Based on the data illustrated by Figure 1, the number of strategies used by the teacher during the first semester is lesser compared to the number of strategies used by the teacher during the second semester. During the first semester, there was no intelligence assessment made while on the second semester an assessment on intelligence profile was made. This increase on the number of strategy utilization may be due to the teacher's awareness on the intelligence profile of students.

Figure 2 below shows the mean rating of students for the first semester and for the second semester in eight different classes.



ISBN 978-616-278-391-3

Figure 2. Average Mean Rating of Samples In Two Different Semesters

Based on the data, the mean rating per class for the first semester is lower than the mean rating for the second semester. This could be due to the increase utilization of strategy and the identification of the intelligence profile of samples.

4. Conclusion and Recommendation

Identification of students' intelligence profile is beneficial in the teaching-learning process. Class whose intelligence profile has been identified performed better. Teachers who knew the intelligence profile of students utilized maximum number of teaching strategies. The performance of students in is directly proportional to the extent of pedagogy used by the teacher.

There is a significant difference in the academic performance of the students before and after the characterization of intelligence profile. Therefore, the null hypothesis is rejected since there is no enough evidence to accept it.

It is recommended that teachers should consider the intelligence profile identification of students prior to teaching. Ideally, the identification should be done prior to the introduction of the learning competencies. Teachers' awareness on the intelligence profile of students will serve as the basis in the preparation of teaching strategies. The intelligence profile could be utilized as a springboard in the teaching-learning process and basis for the appropriate pedagogy.

References

Banks, J. A., & et al. (Eds.). (2001). Multicultural education: Issues and perspectives (4th ed.). Boston: Allyn and Bacon.

Banks, J. A. (1999). An Introduction to Multicultural education (2nd ed). Boston: Allyn and Bacon.

Banks, J. A., & Banks, C. A. M. (1995). *Equity Pedagogy: An Essential Component of Multicultural Education.* Theory into Practice. 34(3), 151-158.

Brunner, C. E., and W. S. Majewski (October 1990). "*Mildly Handicapped Student Can Succeed with Learning Styles*." Educational Leadership 48, 2: 21-23.

Chisholm, D. F. (1994). Supporting Teachers: The Emotion of Teaching and Learning. Routledge Falmer.

Deshler, D., Ellis, S. & Lenz, B. K. (1996). Teaching Adolescence with learning disabilities: Strategies and methods. Denver: Love Publishing.

Dochy, F.J.R.C. (1992). *Assessment of prior knowledge as a determinant of future learning: the use of knowledge state tests and knowledge profiles*. Utrecht/London: Lemma B.V./Jessica Kingsley Publishers.

Dunn,R., Beaury, J.& Klavas, A. (1989). *Survey of research on learning styles.* Educational Leadership, 46(6), 50-58.

Fletcher, R.B. (1997). Cooperative Learning: A Standard for High Achievement. Thousand Oaks, CA: Corvin Press.

Gardner, H. (1983). Frames of mind: The theory of multiple intelligences. New York: Basic Books.

Gay, G. (2000). Culturally responsive teaching: Theory, research, and practice. New York: Teachers College Press.

Glasser, W. (2001). Every Student Can Succeed. Chatsworth, CA: William Glasser, Inc.

Nieto, S. (1995). The light in their eyes: Creating multicultural learning communities. New York: Teachers College Press.

Nieto, S. (2000). School reform and student learning: A multicultural perspective. In J. A.Banks & C. A. M. Banks (Eds.), Multicultural education: Issues and perspectives (4th ed., pp. 381-401). Boston: Allyn & Bacon.

Nieto, S. (2004). Affirming diversity. The socio-political context of multicultural education. New York: Longham (ED 361 440)

Piaget, J. (1970). The science of education and psychology of the child. New York: Grossman.

ISBN 978-616-278-391-3

ACPES 2017
The 3rd International Conference on Physical Education, Health and Sport
ASEAN Council of Physical Education and Sport
"Best Practice for ASEAN+ Community: Enhancing Physical Activity, Physical Education, Sport, Health and Recreation"
2 - 5 September 2017
Saen Palm Convention Hall, Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom,Thailand
Hosted by: Kasetsart University

ACPES94-Full

ENHANCING LEISURE LITERACY THROUGH LEISURE EDUCATION IN THAI SCHOOLS

Suvimol Tangsujjapoj

Kasetsart University, 50 Paholyothin Street, Jatujut, Bangkok 10900, Thailand

Abstract

Thai schools are focused on the development of physical and health literacy, while components of leisure development such as music and outdoor pursuits are not being addressed. The purpose of this concept paper is to promote leisure literacy through leisure education in Thai schools. UNESCO recognizes literacy as a basic requirement for a person to be able to fully participate in society. Literacy is crucial to the acquisition, by every child, youth, of essential life skills that enable them to address the challenges they can face in life. Literacy is a fundamental human right and the foundation for lifelong learning. It is fully essential to social and human development, an instrument of empowerment to improve one's health, quality of life, and relationship with the world. Any society lacking in collective leisure literacy that does not support individuals, throughout the entire lifestyle, from engaging in the active satisfying leisure lifestyle will continue to be fraught with a myriad of social challenges. Leisure education is a child-centred approach that can function as an agent of change for young people. It provides pedagogical, experiential, and recreation experiences which support cognitive, affective and knowledge learning objectives, as well as prevent boredom, at-risk behaviour and to promote non-violence. The program of leisure education should prepare youth to reach a high quality of life, teach youth to use leisure wisely so it contributes to their intellectual, aesthete, social and physical development. In conclusion,it is important to provide leisure education in Thai primary and secondary schools.

Keywords: leisure literacy, leisure education, Thai schools

1. Introduction

Schools in Thailand are focused on the development of other aspects of literacy development including physical literacy and health literacy, while components of leisure development such as music, drama, and outdoor pursuits are not being addressed. In other words, Thai schools require students learn only physical education and health education 1- 2 hours a week. Leisure is a right of all human (United Nation, 1948), everyone should have opportunities to experience leisure. Thus it is important that all students have the chance to be educated for leisure (Sivan, 2008). In addition, the United Nations (1999) "youth participation" agenda in education for twenty-first century includes education for life

ISBN 978-616-278-391-3

skills. The purpose of this concept paper is to present how to promote leisure literacy through leisure education in Thai schools.

Leisure literacy

Literacy is a fundamental human right and the foundation for lifelong learning. It is fully essential to social and human development, an instrument of empowerment to improve one's health, quality of life, and relationship with the world. According to UNESCO (Robertson, 2011) recognizes literacy as a basic requirement for a person to be able to fully participate in society.Literacy is crucial to the acquisition, by every child, youth, of essential life skills that enable them to address the challenges they can face in life. Literacy is not restricted merely to reading and writing, but also is concerned with how we communicate in society. Literacy involves a continuum of learning in enabling individuals to achieve the goals, to develop the knowledge and potential, and to participate fully in the community and wider society. Functional literacy includes a myriad of knowledge and skill in a variety of other domains including culture literacy, information literacy, technology literacy and health literacy.

Leisure education

Leisure is as freedom to pursuit of pleasure, desire and happiness (Borsay, 2006). Mundy (1998) described leisure education in terms of content, it focuses on the subject matter and involves supplying information and knowledge relationship to leisure, teaching skills, and providing opportunities for participation in recreation activities. As context, it includes using leisure setting and situations for education (Henderson, 2007). As a process, it emphasizes developmental nature and it potential contribution as an intervention in developmental transition and tasks over the lifetime (Kleiber, 2011). Leisure education is viewed as a total development process through which individual develop an understanding of leisure, of self in relation to leisure, and of the relationship among leisure, their lifestyle, and society (Mundy, 1998). Leisure education is a child-centred approach. It provides pedagogical, experiential, and recreation experiences which support cognitive, affective and knowledge learning objectives, as well as prevent boredom, at-risk behaviour and to promote non-violence. The program of leisure education should prepare youth to reach a high quality of life, teach youth to use leisure wisely so it contributes to their intellectual, aesthete, social and physical development. Leisure education is a lifelong process to improve quality of life (Mundy, 1998). Leisure education can further develop people's abilities, talents and interests and enhance their sense of freedom, self and personal growth (Brighbtill & Mobley, 1977); self confidence, self-esteem, determination, initiative, reliance, time management, and the capacity for contemplation (Datilo & Williams, 1991). Leisure education could also contribute to social contacts and integration in networks of friends and further enhance social harmony (Sivan & Stebbins, 2011).

The role of school in educating for leisure

According to Page and Thomas (1977): education is a social process in which one achieves social competence and individual growth, carried in a selected controlled setting which can be institutionalized as a school or college. There are two distinct links between education and leisure (Parker, 1979):-1) the extent to which education allows an individual to prepare for a full and

satisfying leisure life; and 2) the fact that education and learning activities are inherently enjoyable and thus contain leisure elements. Leisure is an important part of an individual's education and should be an important part of primary and secondary school curricula. Several leisure education curricular and models were developed by using a systematic approach. They include a wide range of activities which address the major components of leisure education including leisure appreciation, self awareness in leisure, self determination, social interaction, leisure resources, decision making and leisure skill development (Dattilo, 2000).

Schools have been regarded as the major socializing agents for leisure. Underlying the responsibility given to schools to educate for leisure are their important role in the socialization process and perception of leisure education as part of this process (Heyne & Schleien, 1996). Moreover, schools are the primary and the most common institutions of education and many school experiences have potential for imparting leisure knowledge and developing attitudes, values and skills (Rojek et al, 2006).

To best utilize their potential for leisure education, school were called to undergo changes in the educational systems to include aspects of enjoyment and intrinsic reward of students (Kelly, 1996), to place more emphasis on equipping students with attitudes and social skills for their own selection and participation in leisure to move away from providing shot-term recreation skills only and to provide sufficient balance between academic aspects and social, emotional and personal needs satisfaction (Hendry and Marr, 1985). Recent research has substantiated the broader application of leisure education curricula and experiences as interventions to promote positive behavior, while reducing risky behavior among youth (Caldwell, Bradley, & Coffman, 2009). Additionally, there is increasing evidence that leisure education helps prepare students for the transition from school to community and adulthood (Mahon, 1994). Leisure education is multifaceted, and its core components include learning and acquisition of knowledge, skills, values, and attitudes relevant to leisure (Sivan, 2014). Schools around the world have been called upon to undergo changes in their educational system to best use their potential to educate for leisure. These calls also have been grounded in to the right for leisure and the need for access and for equity as part of the compulsory schooling period (Sivan, 2007).

4. Conclusions

It is vital that the role of leisure education in fostering the leisure literacy of the nation be given the highest consideration. Any society lacking in collective leisure literacy that does not support individuals, throughout the entire lifestyle, from engaging in the active satisfying leisure lifestyle will continue to be fraught with a myriad of social challenges.Therefore, it is important to provide leisure education in both Thai primary and secondary schools.

References

[1] Barrow, R. & Milburn, G. *A Critical of Dictionary of Educational Concepts*. Teacher College Press, 1990.

[2] Borsay, P. *A History of Leisure: The British Experience since 1500*. Basingstoke: Macmillan; 2006.

[3] Brighbtill, C.K. & Mobley, T. *Educating for Centered Living*. NY: John Wiley and Sons; 1977.

[4] Dattilo, J. *Leisure Education Specific Program*. PA: Venture Publishing; 2000.
[5] Henderson, K. Quality of life and leisure education: Implications for tourism economies. *World Leisure;* 2007, 49(2), 89-93.
[6] Hendry, L.; & Marr, D. Leisure Education and Young Peoples. *Leisure.Scottish Educational Review*; 1985; 17, 116.
[7] Heyne, L.A. & Schleien, S.J. Leisure Education in Schools: A Call to Action, *Journal of Leisurability*; 1996, 23(3).
[8] Kelly, J.R. *Leisure.* Boston: Allyn & Bacon; 1996
[9] Kleiber, D.A. Taking leisure seriously: New and older considerations about leisure education. *World Leisure Journal*. 2011; 54(1), 5-15.
[10] Mahon, M.J. The use of self control techniques to facilitate self-determination skills during leisure in the adolescents with mild and moderate mental retardation. *Therapeutic Recreation Journal*, 1994; 28, 58.
[11] Mundy, J. *Leisure Education: Theory and Practice*. IL: Sagamore; 1998.
[12] Page, T.G. & Thomas, J.B. *International Dictionary of Education*. Kogan Page, 1977.
[13] Parker, S. *The Sociology of Leisure*. George Allen and Unwin, 1979.
[14] Robert, K. *Youth and Leisure.* George Allen and Unwin, 1983.
[15] Robertson, B. Leisure Education and Physical Literacy: Fostering Vital Skills for Healthy Lifestyle. *Canadian National Recreation Summit*, 2011;21-25 October.
[16] Rojek, C; Shaw, S.M. & Veal, A.J. *A Handbook of Leisure Studies*. NY: Palgrave, 2006, P. 441-2
[17] Sivan, A. Educating for leisure. In E. Cohen-Gewere & R. A. Stebbins (Eds.) *The Pivotal Role of Leisure Education: Finding Personal Fulfillment in This Century*. PA: Venture; 2007.
[18] Sivan, A. Leisure education in educational setting: From instruction to inspiration. *Society and Leisure.* 2008; 31(1), 49-68.
[19] Sivan, A. Leisure education: The Israeli model. In Leitner, M.J. & Leitner, S.F. (Eds.). *Israeli Life and Leisure in the 21st Century*. IL: Sagamore Publishing; 2014.
[20] Sivan, A. & Stebbins, R. Leisure education: definitions, aims, advocacy, and practices: Are we talking about the same things? *World Leisure Journal*. 2011; 53(1), 27- 41.
[21] United Nations. *The Universal Declaration of Human Rights*. 1948. Retrieved from http://www.un.org/en/documents/udhr/index.shtml.

.

ISBN 978-616-278-391-3

ACPES 2017
The 3rd International Conference on Physical Education, Health and Sport
ASEAN Council of Physical Education and Sport
"Best Practice for ASEAN+ Community: Enhancing Physical Activity, Physical Education, Sport, Health and Recreation"
2 - 5 September 2017
Saen Palm Convention Hall, Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom,Thailand
Hosted by: Kasetsart University

ACPES97-Full

IDENTIFICATION AND CHARACTERIZATION OF MULTIPLE INTELLIGENCE AMONG HIGH SCHOOL STUDENTS: IT'S IMPACT ON THE TEACHERS' PEDAGOGY

Sungkowo
PKLO FIK UNNES, email: sungkowo@mail.unnes.ac.id

Abstract

The main data collection in this research was conducted by interview and additional data is done by using measuring instruments or questionnaires confidence.This study uses data analysis techniques based on data already collected. Qualitative data processing or interviews done by creating a category of informants answer. While quantitative data processing is done by testing the validity and reliability of the questionnaire confidence athlete.

The results showed that the increase in mental skills followed by an increase in the confidence of all swimmers. Increased confidence in swimmer can already be seen against the increased performance, the swimmer proved to be a fast lap on the best time. However the target or goal setting a record time on all athletes no one can reach the goal setting they are targeting.

Conclude that intervention in the form of mental training is effective in improving confidence in the swimmer possess. For this research is still applying the same mental training for all athletes. At suggest no individual mental training program for each individual athlete. Future studies are necessary to adjust the provision or portion forms of mental skills for each athlete. Mental training program so that more individual, focused and directed.

Keywords: Goal setting, muscle relaxation, confidence of athletes.

1. Introduction

Goal setting is one of the good foundations to achieve success in a mental skills training program. This is because that trainers and athletes can achieve success in both techniques, tactics and mental through the goal setting principle. The principle of goal setting is to help the athlete to pay attention to appropriate behavior to achieve success in sports, increase athlete's perseverance in various difficulties, strengthen efforts and achieve results in training and matches (Komarudin, 2013: 63).

Athletes who have a state of stress or lack of focus is the right technique so as not to

negatively affect the performance of athletes. The technique used is progressive relaxation exercises, the technique can provide an opportunity for athletes to be able to make the muscles of contraction and relaxation automatically, ranging from the upper body to the bottom tubih. With this technique the athlete can tell which muscles are tense and relaxed
and the athlete can have the ability to make his muscles relax when the muscles are in a state of tension in a very critical situation for example during a game in progress.

In the sport of swimming achievement, athletes must have confidence because self-sensitivity has a significant relationship to the increased performance of athletes. The level of confidence is an indicator of success in every competition, the athlete can perform his duties properly based on the belief in the abilities that exist in him. Athletes who have confidence will be consistent in the attitude and acting during practice and when competing. It is an athlete's mirror of consistency in his emotional aspect. Athletes who have the confidence will be able to perform interpretation, evaluate the ability of his own and can encourage successful achievement and responsible for what is done and set (Komarudin, 2013: 68).

2. Research Methods

In this study the method used is qualitative research, with research design before and after treatment. It considers that the number of swimmer is limited. A qualitative approach is an appropriate method to develop as a new approach in sports psychology and practice. This is because experiences involving activities and bodies such as athletes are highly individual (Stelter, 2003). In addition to having different characteristics, the athlete's experience is also influenced by the specific situation he is facing. While some quantitative data as additional data or supporting data.

Data Required

The data used in this research consists of several things including:
1. Demographic and athlete performance data
2. Data about athlete's mental skills
3. Data on athletes' self-confidence

Population and Sample

The population in this study is swimming athletes PELATDA JATENG in 2016, which amounted to 8 people. Then the sampling technique is the total sampling, is a sample determination technique with the consideration of taking the total number of samples totaling 8 people.

Data Collection Technique

The main data collection in this research is done by interview and additional data is done by using measuring instrument or self-confidence questionnaire.

Further questionnaires as additional data used in this study is a self-confidence questionnaire athlete pool adaptation of State Sport Confidence Inventory or SSCI.

Research Instrument

The instrument of this research is self-athlete confidence questionnaire which has reliability of r = 0,921 and validity ranged from 0,405 until 0,829 (Juriana, 2012: 39). It shows that the gauge is already consistent and it is appropriate to measure the confidence of the swimming athlete. The research instrument can be seen in Appendix 1.

3. Research Results

1. Process description:
In goal setting training, athletes are given the opportunity to write their targets twice (before explanation and after explanation of goal setting), then the researcher with the help and cooperation with the trainer performs the mental training that is muscle relaxation training. Exercise is done before or after meals.

The results of this intervention program are divided into two: 1). Changes in informant's mental skills before and after intervention, 2). Changes in atlet confidence level before and after intervention, 3). Change of time record

2. Changes in Informant Mental Skills

After the training, seven out of eight swimmers experienced an improved goal setting skill, one athlete was an informant whose goal setting skills were lacking, but improved in moderate categories. In addition, relaxation exercises are the most frequent exercises to increase the athlete's confidence and can decrease anxiety after his body relaxes. The anxiety then turns into self-confidence. The relaxed state after relaxation makes the athlete more focused, his movements and swimming styles become more controlled and his body condition after relaxation becomes ready for use in swimming movements, and this makes him feel confident. Then the relaxed condition after relaxation makes the athlete no longer has many disturbing thoughts. Here is an overview of skills change informants:

H. Change of Informant's Time Note

Based on the results of the PON (national sports week) of September 2016, it is known that after attending mental training, all athletes have not been able to reach the target of the prescribed time. But there are four athletes experiencing the best-time improvements in the main numbers, 3 athletes having the best-time improvement on the other numbers, and one athlete has not improved over time. Yet so all, all athletes admit that they are better at competing after undergoing mental training. Swimmers feel more excited but able to control themselves to stay calm, relaxed and concentrated.

ISBN 978-616-278-391-3

References

Deputi Bidang Peningkatan Prestasi Olahraga, Kementerian Pemuda dan Olahraga. (2011)

Goldsmith, W. (2011). *Swim coach brain*. Australia: Playright Publishing and Swimming.

Poerwandari, EK (2007). *Pendekatan kualitatif untuk penelitian perilaku manusia.* Depok: Lembaga Pengembangan Sarana Pengukuran dan Pendidikan Psikologi (PLSP3).

Rushall, B.S (2008). *Mental skills training for sport.* Fourth edtion. California: Spring Valley.

Setiadarma, M.P (2000). *Dasar-dasar psikologi olahraga*. Jakarta: Pustaka Sinar Harapan.

Setyobroto, S. (2005). *Psikologi olahraga*. Jakarta : Percetakan Universitas Negeri Jakarta.

Vealey, RS., Hayashi, S.W., Giacobbi, P, & Garner-Holman, M. (1998). Sources of Sport Confidence: Comceptualization and Instrument Development. Jounal of sport and exercise psychology, 20,54-80.

Morrison, KA. (1999). *The examination of state sport confidence of secondary school boys and girls participating in coeducational and gender seperated physical education class.* Thesis. Canada: Faculty of Education McGill University.

Middleton,S,C.,Marsh, HB., Martin, AJ.,Richards, G.E., Perry, C. (2001). *Discovering mental toughness: A qualitative study of mental toughness in elite athlete.* Journal of sport and exercises psychology. Australia: University of Western Sydney.

Horn, TS. (2008). *Advances in sport Psychology*. Threth edition. Ohio: Human Kinetics, Inc.

Komarudin. (2013). *Psikologi olahraga latihan mental dalam olahraga kompetitif.* Bandung: percetakan PT Remaja Rosdakarya Offset.

Komarudin. (2015). *Psikologi olahraga latihan mental dalam olahraga kompetitif*. Edisi revisi, Bandung: percetakan PT Remaja Rosdakarya Offset.

Ali Maksum. (2008). *Psikologi olahraga teori dan aplikasi.* Surabaya: Penerbit Unesa University Press

Juriana. (2012). *Peran pelatihan mental dalam meningkatkan kepercayaan diri atlet renang sekolah Ragunan.* . Tesis. Depok:Fakultas Psikologi Program Pascasarjana.

Frans Nurseto. (2009). *Psikologi olahraga kunci sukses mencapai prestasi*. Lampung.

Murphy,Shane (2005). *The sport psych handbook, a complete guide to today' best mental training techniques*. Human kinetics.

Kartono.,Kartini & Gulo,Dali. (2000). Kamus Psikologi. Bandung: Penerbit Pionir Jaya.

ISBN 978-616-278-391-3

ACPES 2017
The 3rd International Conference on Physical Education, Health and Sport
ASEAN Council of Physical Education and Sport
"Best Practice for ASEAN+ Community: Enhancing Physical Activity, Physical Education, Sport, Health and Recreation"
2 - 5 September 2017
Saen Palm Convention Hall, Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom,Thailand
Hosted by: Kasetsart University

ACPES99-Full

TRANSFORMATION OF CADRE LEADERSHIP AS AN EFFORT TO IMPROVE NUTRITIONAL STATUS: A CASE STUDY IN AN URBAN AREA IN INDONESIA

Sri Ratna Rahayu ,*[1] Oktia Woro Kasmini H.[2], Efa Nugroho[3], Bertakalswa Hermawati[4]

[1,2,3,4] *Public Health Science Department, Universitas Negeri Semarang (UNNES), F5 Building Sekaran Campus Semarang City Central Java Province, 50229, Indonesia*

Abstract

Nutrition is still a health problem that needs attention in Indonesia. Based on the data of Basic Health Research (Riskesdas) (2010), the 12.2 % prevalence of toddlers' obesity in 2007 increased to 14.0 % in 2010; whereas, in national scale, the 18.4 % prevalence of malnutrition in 2007 increased to 19.6% in 2013 (Riskesdas, 2013). Recent nutrition management programs have not shown maximum improvement. One of the programs to improve the nutritional status in the community is *Posyandu*, *Pos Pelayanan Terpadu* (United Service Post). In order to optimize the role of *Posyandu*, cadre leadership is needed. The purpose of this study is to analyze how effective the transformation of *Posyandu* cadre leadership is in the effort to improve nutritional status. This study used a qualitative research method with snowball sampling technique. A head of *Posyandu* cadre became the main informant in this study; in addition, a *Public Health Center* (Public Health Center) nutritional officer and a mother who had a toddler during the head's leadership period became the triangulation informants. The Data collection of this study used in-depth interviews. The result of the research indicates that the head of cadre had too much burden in her job; she assumed that her cadres cannot do the given tasks, while the cadres said that she did not give clear instruction and she always took over the tasks by herself. In conclusion, the leadership transformation did not go well because the head of cadre did not delegate tasks optimally to her cadres.

Keywords: transformasion, cadre leadership, Posyandu

1. Introduction

Nutrition is a serious problem that can affect future development. Children with problematic nutritional status during toddlers will be related to brain development, intelligence and learning achievement so as to have a higher tendency to drop out or to postpone schooling to a higher level [1]. Overweight has become a global pandemic worldwide and declared by the World Health

Organization (WHO) as the biggest chronic health problem [2]. WHO estimates that the prevalence of overweight in infants and children in 2008 amounted to 40 million or 6% of the world population. The highest prevalence of overweight among infants and children is in the upper middle income group, but the fastest increase is in the lower middle income countries, such as Indonesia [3,4].

Indonesia is a developing country, one of the public health problems currently faced is the double burden of nutritional problems, namely the lack of nutrition problems and on the other hand the existence of more nutritional problems. Based on Riskesdas data (Basic Health Research) [5], the prevalence of obesity in children is 14.0%, increase in 2007 that is 12.2%. Riskesdas 2013 results [6] nationally the estimated prevalence of malnutrition and underweight by 19.6%. When compared with 2007 [5], an increase of 18.4%. (4,646,933 children).

The programs that have been performed are not yet able to produce the maximum improvement of nutritional status. One of the programs in the effort to improve the nutritional status in the community is posyandu. Posyandu is a social organization of basic health activities organized by the community assisted by health workers. In Posyandu activities the role of the leader is needed so that Posyandu activities can run well according to the purpose of Posyandu [7]. The role of Posyandu leaders in running their organizations, whether in communicating, delegating tasks, developing cadre knowledge, will determine the success of the posyandu program itself in maximizing the improvement of nutritional status of the community.

Research conducted in Thailand shows that there was an effect of participation, reciprocity and pro-active of health volunteers on nutritional status of children [8]. This local potential differs between race, ethnicity, tradition, and socioeconomic conditions, even in different regions of the same country or even in the same area at different times [9,10,11].

The problem in this research is how the leadership transformation on posyandu cadre in effort to improve nutritional status.

2. Experimental Work

The research used qualitative approach with deep interview. Qualitative approach is used to evaluate the implementation of the model, with the focus of research is the implementation of the model related to input, process and output. The sample technique was used to find the informant with Snowball sampling and triangulation. Informants amounted to 7 people consisting of 1 officer Public Health Center nutrition, 2 cadres posyandu, 2 college partner and 2 mother of toddler. The informants were determined by purposive techniques, with the informants being: 1) the Public Health Center officers, at least 1 year, 2) the posyandu cadres being recommended cadres, as appointed by the Public Health Center from the inactivity of the posyandu, 3 willing to participate in research.Tthe research instruments used are observation guides, interview guides, and FGD guides. Analysis technique with Miles and Huberman model.

ISBN 978-616-278-391-3

3. Results and Discussion

The description of the study area was densely populated residential areas in urban areas, consisting of 13,411 inhabitants where males numbered 6,776 and females totaling 6,635, with high school education level of 2,267 people with 3,616 households. average income was included in the middle class [12].

Based on in-depth interviews, observation and FGD, the following results were obtained: 1) In terms of input, there was an active posyandu leader with a lot of activity. Members of the cadres do not appear to play a role but have great potential in posyandu activities. The existence of a bureaucratic was very prominent, which affects the performance of posyandu. 2) Funding was not a major obstacle 3) Coordination and communication between leader and cadres members are very lacking. According to the cadre leader where each cadre difficult to contact. It can be said that the leader tends to work on her own, as he complains: "others are hard to work with, mostly rejecting for various reasons". 4) Posyandu leader is a cadre of Public Health Center's trust to assist health-related activities. According to the leader of Posyandu, almost all bookkeeping was done alone, no one helps, as the statement says: "Other cadres are inactive and hard to get together for activities". This is in contrast to the time when coordination and training activities are seen to be active from posyandu members to engage in activities, which can be seen from the presence and the number of questions because of their knowledge. 5) Partners of Universities involved to assist the activities experienced some obstacles related to the personal abilities and motivation of students and lecturers who vary. 6) Implementation of activities requires better coordination, with the guidance and initial assistance of competent personnel

Constraints faced by the cadre members are: 1) ignorance of what to do, 2) feel never involved or lack of information about activities, 3) skills and knowledge that are still lacking so that the sense of confidence is also lacking, 4) support motivation that still needs to be built. 5) The observation result shows the dominance of Posyandu leader, who each want to show their role, which then influences their respective leadership style and influence the performance of cadre members.

eadership which is the process of influencing or setting an example to its members in an effort to achieve common goals, can not be done well. (2) the function of consultation (two-way communication), (3) the function of participation (the chairman attempts to master circumstances and can engage in activities), (4) delegation functions (dividing tasks to members and (5) control. The leadership style of the cadre leader, can be classified as tend towards the dominant paternalistic on authoritarianism, which is 1) all more decisions are taken by the cadre chairman, who considers himself most capable and master all kinds of problems in the field, 2) treats his members as non-can play a role in the task, and want to help or be good, so as not to charge the task to its members. The role of the cadre leader is an important part of the model's success, as is found in the study [13], that the role of leader in the form of leadership support will affect the success of the health program. Leadership as a system of relationships between leaders and their members is important, and appropriate leadership will have a positive impact on the work [14,15].

4. Conclusions

Leadership transformation does not work well because the cadre chief does not delegate tasks

optimally to his cadres so that the Posyandu program in the effort to improve people's nutrition is not maximal

References

[1] Ivanovic, D., Rodriguez, Perez, H. Twelve-year Follow-up Study of The Impact of Nutritional Status at The Onset of Elementary School on Later Educational Situation of Chilean School-age Chieldren, European Journal of Clinical Nutrition 2008 62, 18-31p.

[2] Wulandari S., Lestari H., and Fachlevy Andi Faizal. Faktor yang berhubungan dengan kejadian obesitas pada remaja di SMA Negeri 4 Kendari Tahun 2016. Kendari 2016.

[3] McMurray RG et al. 2000. The Influence of Physical Activity, Socioeconomic Status, and Ethnicity on The Weight Status of Adolescents. *Obesity Research*, 8:130–139.

[4] Wang Y. 2001. Cross-national Comparison of Childhood Obesity: The Epidemic and The Relationship between Obesity and Socioeconomic Status. *International Journal of Epidemiology*, 30:1129–1136.

[5] Badan Penelitian dan Pengembangan Kesehatan Kementerian Kesehatan RI. Riset Kesehatan Dasar (Riskesdas) 2010. Jakarta 2010.

[6] Badan Penelitian dan Pengembangan Kesehatan Kementerian Kesehatan RI. Riset Kesehatan Dasar (Riskesdas) 2013. Jakarta 2013.

[7] Depkes RI. Buku Saku Posyandu. Jakarta 2010: Departemen Kesehatan Republik Indonesia.

[8] Oktia Woro Kasmini H, Tandiyo Rahayu, Irwan Budiono, Pomsuk Hunnirun, Songpol Tomee, Anong Hansakul. Social Capital and Nutritional Status of Child Under 5 Years in Rural Indonesia and Thailand. Kemas 2014, 10(1): 88-95

[9] Horowitz, C. R., Davis, M. H. etc. Approaches to Eliminating Sociocultural Disparities in Health. Health Care Financing Review 2000 Vol 21, Edisi 4, 57-72p.

[10] Garces, I. C., Scarinci Isabel C, Harrison Lynda. An Axamination of Sociocultural Factors Associated With Health and Health Care Seeking Among Latina Immigrants. Journal Immigrant Health 2006 Vol 8 , 377-385p.

[11] Mitra, M., Sahu, P. K. etc. Nutritional and Health Status of Gond and Kawar Tribal Pre-school Children of Chhattisgarh, India. Journal Hum. Ecol. 2007 Vol 21 No 4 , 293-299p.

[12] Bappeda Kota Semarang dan Badan Pusat Statistik Kota Semarang. Kecamatan Semarang Selatan Dalam Angka 2012. Semarang 2013: Bappeda Kota Semarang Badan Pusat Statistik Provinsi Jawa Tengah.

[13] Karen Milner et al. The Relationship Between Leadership Support, Workplace Health Promotion and Employee Wellbeing in South Africa. Health Promotion International 2013, 30(3): 514-522.

[14] Habiba Anwar. Impact of Paternalistic Leadership On Employees Outcome- A Study On The Banking Sector of Pakistan. IOSR-JBM 2013, 7(6): 109-115.

[15] Osabiya. B, Ikenya. E. The Impact of Leadership Style On Employees Performance In An Organization. Public Policy and Administration Research 2015, 5(1): 193-205

ISBN 978-616-278-391-3

ACPES102-Full

EFFECT OF DIFFERENT RECOVERY PROCEDURES ON POST COMPETITION OF MEN VOLLEYBALL PLAYERS

Tongdecharoen Wisute

Faculty of Sport and Health Sciences, Institute of Physical Education, Si Sa Ket campus, Si Sa Ket 33000, Thailand

Abstract

The current experimental research aimed to study the effect of three different recovery procedures on ; ice bath, applied Thai massage and rest sitting, on plasma creatine kinase. Nine men volleyball players (main players and without any injuries) were selected samples in this study. The one sample pretest-posttest was used as the research design. Plasma creatine kinase of was tested in three different conditions; before competition, in 5-10 minutes post competition, and in 5-10 minutes after performed each type of recovery procedure. Each procedure was random experimented first with ice bath, applied Thai massage, then rest sitting, and one week was the duration apart of each procedure. Data analysis, the two way ANOVA repeated measure was used to determine the plasma creatine kinase of three recovery procedures differences in three conditions of the experimental design, then using the Bonferroni analysis for post hoc comparison. The study resulted that there were no differences between the plasma creatine kinase of three recovery procedures in all conditions at statistic level 0.05. However there were not statistic significant between the plasma creatine kinase on post competition and after performed recovery of all three recovery procedures at 0.05 statistic level. Findings suggested that using just one of these recovery methods at the time can not immediately decrease creatine kinase to normal level. Therefore, to calm down the plasma creatine kinase, the further research should study the more effect by applying all three recovery procedures after the vigorous exercise.

Key words **:** recovery procedures, post competition, men volleyball player

1. Introduction

The players must continue competing almost every day, resulting in the pain of other muscles and causing the limitation of movement around different types of joints, including eliminating other biochemical substances happening during the competition of the players needed more 24 hours, resulting in the player body's disability in rehabilitation instantly for the next match. Such pain of muscle that ensued was called muscle pain after excessive exercise or unfamiliar exercise (Shoosak; & Kanya. 1993). Hard muscular work during the competition caused delayed onset muscle soreness (DOMS) which initially showed the soreness as time went by about 8 – 24 hours and showed the greatest pain about 24 – 72 hours after exercise. The pain would pass automatically on the fifth day to the seventh day after stopping exercise. (Armstrong. 1984) From the previous study, searching for a method to relieve muscle pain from the exercise abruptly was carried out, e.g. ultrasound therapy, massage, cryotherapy, TENS, light exercise after practice or competition, etc. For clinical treatment, acute injuries of bone system and muscle were mostly cured with coldness since it could be easily used. Also, using coldness would decrease tissue temperature which suffered from motivating sympathetic nervous system, causing Angiospasm, reducing blood circulation, helping the restraint of the substance secretion that caused the pain so that it could relieve acute inflammation, could reduce speed of leading sensory neuron (Belanger. 2002) in accordance with Willcock; et al. (2006), Marsh; & Sleivert. (1999) Form the study that belonged to Ingram, J. (2008), it was found that cold water immersion was the best way to be used for the players rather than warm water immersion and then cold water immersion, taking turns or

normal stay and it helped decrease in creatine kinase level. Apart from using coldness, massage for the players was another popular way. From the study that belonged to Hilbert, et al. (2003) about the effect of massage for the players on delaying the starting point of muscular aches and pains, the decrease in amount of creatine kinase, the increase in white blood cell and the decrease in reducing rate of cortisol which was in accordance with Rodenburg, et al. (1994) who studied about warming – up, stretching and massaging affected eccentric exercise, it was found that such a method had an effect on delaying the starting point of muscular aches and pains, extreme power, angle of elbow flexion, and the amount of creatine kinase.

However, the finding of recovery procedures which helped relieve delayed onset muscle soreness as soon as possible less than 24 hours was not found. Hence, it was imperative to study of the recovery procedures after practice and competition of volleyball players in order to find the most appropriate and effective procedures for the recovery of the players.

2. Experimental Work

2.1 Samples

The samples used for this research were 12 male volleyball players representing Institute of Physical Education Si Sa Ket in the 35th Institute of Physical Education Games of Thailand "Suphanburi Games". They were selected by purposive random sampling. As for the inclusion criteria, the samples must not get any injuries or were not under rehabilitation and they were willing to take part in the research.

2.2 Experimental Method

This experimental research tested 3 procedures of different types of recovery; namely, the first one: ice bath, the samples were asked to immerse in ice bath 3 times with the temperature of 10 - 15 degrees Celsius for 5 minutes, and then to have 5 minute break, the second one: applied Thai massage performed by co-researcher for 30 minutes, the samples were asked to lie on face downward in the massage bed while the co-researcher gave them a message according to the techniques, beginning with the neck and shoulders and then massaged all the way to other lines going from the back to the front, moving from the left side to the right side, and moving from the upper part to the lower part, and ended with muscles stretching, and the third one; rest sitting, the samples were asked to jog around the volleyball court for about 4 minutes, following with walking around the court for about 4 minutes, perform 25 muscular stretching exercises, and then keep stretching for about 10 – 15 seconds for each exercise; and finish by rest sitting for 30 minutes.

Proceeding with the experiment through drawing lots recovery procedures and the experiment was done on Mondays at 01.30 p.m. for 3 weeks, starting with asking the samples to perform a 30 minute rest sitting and then they were given a blood drawing while resting (The first time) by registered nurses in order to keep the sample blood from Median cubital vein. Then, they were asked to perform a 15 – 20 minute warm-up and competed with match simulation by dividing the samples into 4 groups, each group comprised 3 players: Player 1 stood in the sixth position as a receiver; Player 2 stood in the third position as a wing spiker setting the ball to the fourth position and switched the roles from Player 1 to Player 2, Player 2 replaced Player 3, and Player 3 substituted for Player 1 for about 5 seconds. This was considered to be the first round and started new procedure at the beginning of simulation to the fiftieth round as one set and took a 2 minute break during the set, and performed all 5 sets. The intensity was set through using pulse beat rate at 90 % of maximum pulse beat rate. If it was lower than the set rate, it could be done by reducing the time to less than 5 seconds when the players switched their roles. When coming to the end of the competition, the samples were asked to perform a 15 – 20 minute cool down, and then they were given a blood drawing before recovery (The second time), proceeding with the recovery for 30 minutes and giving them a blood drawing after recovery. (The third time) (Figure 1)

Period 1 (30 mins.)	Period 2 (10 mins.)	Period 3 (45 mins.)	Period 4 (10 mins.)	Period 5 (30 mins.)	Period 6 (10 mins.)
Rest sitting	Blood drawing (The 1st time)	- A 10-15 minute warning-up - Competing in match simulation (30 mins.)	Blood drawing (The 2nd time)	Recovery	Blood drawing (The 3rd time)

Figure 1 Showing the recovery procedures

Spacing out for one week, the researcher drew lots the recovery procedures and proceeded with the second experiment and the third one through using different steps as done in the first experiment, but the recovery procedures were changed. During the experiment period, there were only 9 samples left since 3 samples asked for stopping the experiment.

2.3 Data Analysis

1. The acquired data were analyzed by Mean and standard deviation.
2. The comparison of Mean's difference while resting before and after recovery with different procedures was carried out and was analyzed by the Two Way ANOVA repeated measurement. Then, Bonferroni analysis for post hoc comparison was utilized through determining the level of significance at .05.

3. Results and Discussion

Results

From the effects of recovery with 3 different procedures, it was found that the Mean value of creatine kinase level in applied Thai massage had maximum value. (While resting, it had the value of 125.56±73.44 unit/ litre. Before recovery, it had the value of 163.22±85.75 unit/ litre. And after recovery, it had the value of 161.33±89.36 unit/ litre. Then, the Mean value of creatine kinase level in rest sitting had minor maximum value. (While resting, it had the value of 117.78±47.23 unit/ litre. Before recovery, it had the value of 151.61±54.48 unit/ litre. And after recovery, it had the value of 152.83±54.14 unit/ litre. Finally, the Mean value of creatine kinase level in ice bath had minimum value. (While resting, it had the value of 110.00±32.55 unit/ litre. Before recovery, it had the value of 140.00±39.57 unit/ litre. And after recovery, it had the value of 144.33±42.81 unit/ litre. (Figure 2)

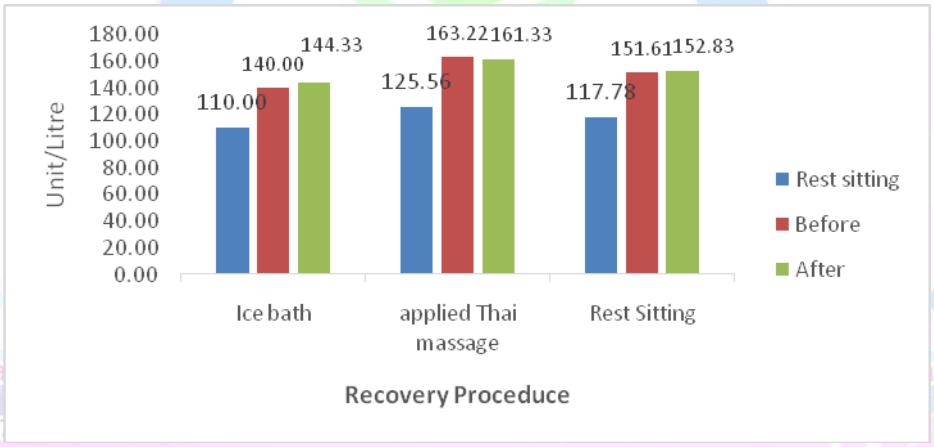


Figure 2 Showing the Mean value of creatine kinase level through recovery with 3 different procedures

When comparing the 3 different procedures of recovery through using Two Way ANOVA repeated, it was found that recovery procedures and interaction between procedure and measurement were not significantly different at the level of .05, but when comparing the recovery procedures classified according to the measurement (While resting, before and after recovery), it was found that the creatine kinase level before and after recovery was not significantly different, but it was found that the creatine kinase level while resting, together with before and after recovery was significantly different at the level of .05. (Figure 3)

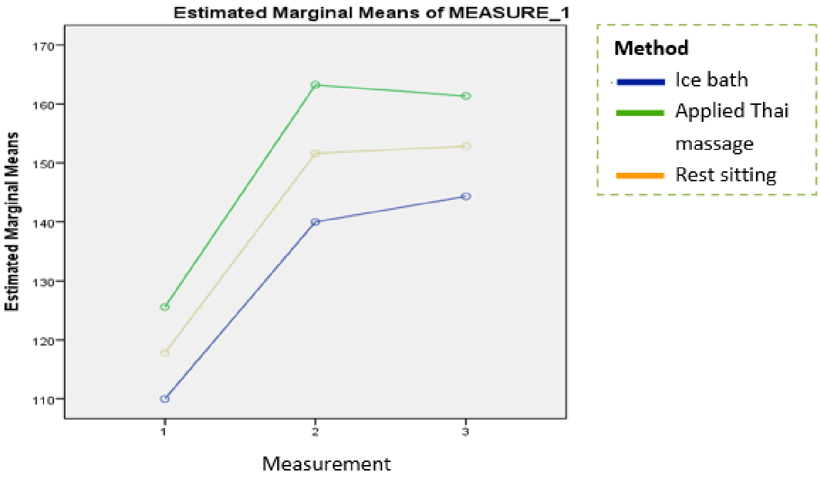


Figure 3 Showing the comparison of creatine kinase level through different recoveries

Discussion

From the findings, it was found that the creatine kinase level after recovery with ice bath and rest sitting was likely to become higher, while the creatine kinase level in applied Thai massage tended to become lower. When comparing all 3 procedures, it was not different. And when comparing before and after recovery classified by the procedures and the measurement, it was found that before and after 3 different recovery procedures were not different. The reasons why all different 3 recovery procedures were not different and in each procedure which the creatine kinase level before and after recovery was not different were probably due to the match period for this experiment which the extreme intensity spent 50 minutes and recovery performed 30 minutes were not enough for the recovery. Theoretically, creatine kinase is an enzyme in cytoplasm and mitochondria of muscular cells. It catalyses the conversion of creatine and utilizes adenosine triphosphate to create phosphocreatine. The increase in creatine kinase arised after the muscles were destroyed or injured and had maximum value within 6-12 hours and returned to normal condition within 24 - 48 hours. (Shoosak; & Kanya. 1993, Brancaccio; et al. 2007, Prawate Katekan. 2013) When considering each procedure, it was found that creatine kinase level after recovery with applied Thai massage was likely to become lower within 50 minutes after the competition which was in accordance with Hilbert; et al. (2003) and Rodenburg; et al. (1994) who studied the effects of massaging players could delay the starting point of muscular aches and pains, creatine kinase decreased, the amount of white blood increased and the reduced rate of cortisol became lower.

4. Conclusions

From the findings, it was found that all 3 recovery procedures were not different, but after performing applied Thai massage for 30 minutes caused creatine kinase to become lower. Theoretically, it would return to normal condition within 24 – 28 hours, making it to be the doubt that applied Thai massage might help the recovery more quickly than 12 hours. And if a variety of recovery procedures were blended, it would speed up the recovery together with the assessment in psychology or the quality assessment of DOMES because other variables affecting the recovery might be available as well.

References

[1] Shoosak Wachaphat; & Kanya Palawiwat. **Physiology of Exercise**. 2nd ed. Bangkok: Thamkamon. 1993.

[2] Prawatwate Katekan. **The Effects of Using "Turmeric" Herb on the Concentration of Interleukin-6 and Creatine Kinase in Thai Boxers**. Dissertation (Sports and Exercise Science). Bangkok: Srinakharinwirot University. 2013.

[3] Armstrong, R.B. (1984). Mechanisms of exercise-induced delayed onset muscle soreness: a brief review. **Medicine and Science in Sports and Exercise.**1984: 16(6):529-38, DEC.

[4] Brancaccio,P., Maffulli,N., and Limongelli,F.M. Creatine kinase monitoring in sport medicine. **British Medical Bulletin**, 2007 : 81 and 82 : 209–230.

[5] Hilbert J.E. ,Sforzo,G.A.and Swensen T. The effects of massage on delayed onset muscle soreness.**Br J Sports Med**. 2003;37:72–75.

[6] Ingram, J., Dawson,B. ,Cramel, F.,Wallman, K. and Beilby, J. Effect on Water Immersion Method on Post-exercise Recovery from simulate team sport exercise. **Journal of Science & Medicine in Sport**, 2007 ;12 : 417-421.

[7] Marsh ,D. and Sleivirt, G.Tddect of percooling on High intensity cycling performance**. British Journal of Sports Medicine,** 1999;33(6).

[8] Rodenburg, J. B., D. Steenbeek, P. Schiereck, P. R. Bär (1994) Warm-up, Stretching and Massage Diminish Harmful Effects of Eccentric Exercise .**International Journal of Sports Medicine**.1994;15(7): 414-419.

[9] Wilcock, I.M, Cronin, J.B. and Hing, W. A. . Physiological Response to Water Immersion A Method for Sport Recovery? .**International Journal of Sports Physiology and Performance.** 2006, Sep;1

ACPES103

THE CONSTRUCTION OF FLEXIBILITY TEST OSAR PROTOTYPE DEVICE

Tongdecharoen Orawan

Faculty of Sport and Health Sciences, Institute of Physical Education, Sisaket campus, Sisaket 33000, Thailand

Abstract

The purposes of this research were to assess the reliability, validity, and objectivity of construction of the Flexibility Innovation Test namely OSAR (Orawan Sisaket) Reliability prototype device.A total 180 students of Institute of Physical Education, Sisaket campus age ranged from 18-24 years old participated in this study. To assess the OSAR constructions, the samples were divided into three groups. First, to examine the validity,20 males and 20 females were tested through the HelmassIII flexibility equipment and OSAR prototype, and t-test analysis was computed to compare the flexibility differences scores. Second, to assess the reliability of OSAR prototype, the test-retest method was used. The 40 males and 20 females samples were tested by OSAR prototype and Pearson's correlation coefficient were analysed. Third, to explore the objectivity of OSAR prototype, two instructors with 60 male and 20 female samples were participated. In order to test flexibility of all these samples, the two instructors were trained to use OSAR prototype. The Pearson's correlation coefficient were analysed to explore OSAR' objectivity. Results manifested that there was not significant differences between the flexibility scores of OSAR prototype(*M = 16.96, SD = 4.07*) and HelmassIII flexibility equipment(*M = 17.00, SD = 4.04*) at statistic level .05. The reliability of OSAR prototype was efficiency according to Pearson's correlation coefficient(r = .99). Finally, OSAR prototype was appropriate objectivity with the Pearson's correlation coefficient(r = .99). In conclusion, all assessment of OSAR prototype including; validity, reliability, and objectivity construction were accepted. Therefore, OSAR prototype be useful for flexibility test.

Key words:flexibility test, OSAR prototype, validity, reliability, objectivity

1. Introduction

Exercise to be effective. Periodic physical fitness tests should be performed. To know how much of a developmental capacity it has developed. In physical fitness tests, standard measurement tools are required. Accurate, accurate, reliable, reliable and accurate test results. It is often a standard quality scientific equipment.[1] Current standard testing equipment used by the Sports Science Center, the University Health Center, Fitness Center and school. Mostly imported from abroad, the price is high. Mead in Thailand is also less. In addition, scientific and technological equipment and tools. There may be both advantages and disadvantages, such as the cost, complexity of how to use and maintain and there may be a problem with the repair, repair costs to replace damaged parts. This may need to be repaired to the manufacturer. Sometimes it can not be repaired because it does not have spare parts or discontinued parts or accessories. And the most important issue is price. Some equipment or tools are very expensive. This is one reason why many institutions in higher education do not have equipment. Advanced science and technology tools used in teaching or research.[2]

At present, the application has been created or adapted. Sports science equipment Used in teaching and research. Experimental tool or research tool for research to develop teaching and learning, this device is "Innovation". Or a tool to implement (Treatment) to develop a variable. The creation of tools or innovations. Modified or rebuilt The details of the tool must be specified. And how to create and find the quality of the tool thoroughly. [3] To make the tools of quality and performance acceptable.

Flexibility is the rang of movement. [4] [5] Or the mobility of the joints throughout the movement. [5] This is a component of physical fitness that is important to the general public and athletes. Lower back flexibility testing is sit and reach position. Flexibility device that is required to perform physical fitness tests. Physical Fitness Testing is a compulsory subject in the Bachelor of Science program and compulsory subjects in the Bachelor of Education Program in Physical Education.

Flexibility tool used in physical education institutions campuses are expensive, or some of them have less security because they have to be bent. Safety posture should be in sit and reach. Some equipment is difficult carrying. Flexibility is factors of physical fitness which Thai student

QA in Primary school and Secondary. In small size School has no budget to buy flexibility tools, or may not be standard.

For this reason, the researcher Therefore, the study of the construction of flexibility Test OSAR prototype device (with validity, reliability, and objectivity construction were accepted). For ease of testing and small schools can be used.

2. Experimental Work

This research were to Experimental research.

Experimental Work

1. The device

1) The base is a clear acrylic sheet of 5 mm thickness, 30 cm wide base 30 cm long, 3 square (1x30x 30 = 3 pieces). Foot printers

2) The sliding plate is a 5 mm thick acrylic sheet with a scale (in centimeters) consisting of: Transparent acrylic sheeting slides 30cm wide, 60 cm long, 1 piece (1 X 30 X 60 = 1 piece). Stick a white sticker with blue scale. The width of 9 centimeters (60 centimeters) is the negative side (-) 20 centimeters and the centimeter (0) plus 39 centimeters are joined together by 3-sided grooves to remove the trusses. For ease of transport. 2 x 3 x 30 mm = 2 mm x 3 mm. sliding For use in the movement of the display, measurement of flexibility.

Figure 1. OSAR (Orawan Sit and Reach) Prototype

2. The device style

Let the test takers take off their shoes. Sit flat on the floor straight leg straight. By both feet perpendicular to the ground. Foot to toe with foot. The arms are stretched straight on both hands, parallel to the ground and gradually Bend forward your hand in front of the acrylic slide. (Palm down) can not continue to bend. Keep finger tips together and maintain distance for 2 seconds or more. Read the distance from the acrylic slide sheet that the tester moves. (A unit scale in centimeters)

Finding quality devices

Creation device	**Find quality devices**	
	Validity	Face validity by 5 expert
	Reliability	Test-retest by 60 subject
	Objectivity	2 Tester with the same group subject
	Concurrent Validity	t-test (40 subject)

Data analysis

This research, the researcher analyzed the data as follows: 1. Examine the validity were tested through the HelmassIII flexibility equipment and OSAR prototype, and t-test analysis was computed to compare the flexibility differences scores was use Paired Simple t-test.
2. Examine the reliability of OSAR prototype, the test-retest method was used. Pearson's correlation coefficient were analyzed.3. Explore the objectivity of OSAR prototype were the two

instructors were trained to use OSAR prototype. The Pearson's correlation coefficient were analyzed to explore OSAR' objectivity.

3. Results and Discussion

Table 1. Examine the validity were tested through the HelmassIII flexibility equipment and OSAR prototype.

Flexibility Testing	N	D	df	t	p
OSAR prototype	40				
HelmassIII flexibility	40	-0.15	39	-0.59	.56

p > .05 (Two-Tailed Significance)

Table 2. Examine the reliability of OSAR prototype.

Flexibility Testing	Summary Flexibility Testing	r
1st Time	1,034.70	.99
2nd Time	1,038.47	

p < .01 (Two-Tailed Significance)

Table 3. Explore the objectivity of OSAR prototype

Flexibility Testing	Summary Flexibility Testing	r
1st instructor	1,384.60	.99
2nd instructor	1,387.25	

p < .01 (Two-Tailed Significance)

Table 1 shows the values for the flexibility scores of OSAR prototype(*M = 16.96, SD = 4.07*) and HelmassIII flexibility equipment(*M = 17.00, SD = 4.04*) at statistic level .05. (p > .05)

Table 2 shows the values for the reliability of OSAR prototype was efficiency according to Pearson's correlation coefficient(r = .99).(p < .01)

Table 3 shows the values for OSAR prototype was appropriate objectivity with the Pearson's correlation coefficient(r = .99).

The results showed that the construction of flexibility test OSAR prototype device were high validity, reliability, and objectivity construction were accepted. Therefore, OSAR prototype can be use for flexibility test. This is consistent with the study of the validity and reliability and objectivity of the Varaporn Chaisuriyanan's measurement tool [6], and consistent with Pawares Phanthayuth's [7] to study the effect of using varied angle joint position testing device on the flexibility of Bangkok elementary school students. Study to face validity, concurrent validity value of the constructed device and reliability the reserecher's instrument test found that the validity coefficients of the constructed device by using varied ankle piont position were .97 and .93 for boy and girl students respectively, for girl students, the reliability coefficients for 10 and 20 dorsiflexion position were .95 and .78 and .98, .97, .91, .96 and .96 for the 10 20 30 40 and 50 plantarflextion position respectively and .97 for an anatomical position, the flexibility

of girl and boy students at most variation in the joint positions was significantly different at the .05 level, except the 40 and 50 plantarflexion position. And in conclusion with Chutichai Wiwatsonsiri.[8] The study of the instrumentation of the posterior and posterior lower back muscles. The purpose is to create a device to measure the flexibility test of the lower back and hamstring. Find content validity by finding the Rovinelli and Hambleton Correlation Index of 4 experts and determining the degree of accuracy using the Back sever sit and reach test. Confidence with test-retest the criteria for measuring relationships. Confidence in repeat test methodology revealed that the instrumentation of the lower back and lower limb musculature was statistically accurate and consistent. The reliability is moderate level, that can be use flexibility test.

4. Conclusions

In conclusion, all assessment of OSAR prototype including; validity, reliability, and objectivity construction were accepted. Therefore, OSAR prototype be useful for flexibility test. OSAR prototype have to be quality as well as HelmassIII flexibility, OSAR prototype have to be strong.

Suggestion

1. OSAR prototype should be placed on the wall to stabilize the device.
2. Should be selected materials and developed to be the least weight device.
3. OSAR prototype should be tested several times to improve potential defects.

References

[1] Tisthongkum Tawon, Documentation on how to create quality research tools. (2016).
[2] Maneechod, Tiwat. Techniques for writing research reports and thesis. Bangkok: 2011
[3] Rittiwat,Wacharee and Senavongse, Wongwit. Validity and Reliability of Vertical Force Measuring Device for Learning and Teaching. Journal of Physical Education Department; 2014, 17(2), 106-114.
[4] ACSM. American College of Sports Medicine. Health Appraisal and Risk Assessment ACSM 's Guidelines for Exercise Testing and Prescription. 8th ed.: Baltimore: American College of Sports Medicine.
[5] _____. Health Appraisal and Risk Assessment ACSM 's Guidelines for Exercise Testing and Prescription. 9th ed. Baltimore: American College of Sports Medicine. 2014.
[6] Chaisuriyanan, Varaporn. The construction of flexibility test. Master of Art Degree Thesis. Education Faculty, Kasetsart University. 2003.
[7] Phanthayuth, Pawares. The effect of using varied angle joint position testing device on the flexibility of Bangkok elementary school students. Master of Art Degree Thesis. Education Faculty, Kasetsart University. 1997
[8] Wiwatbutsiri, Chutichai. Instruction of The Applied Lower Back and Hamstring Flexibility Test. Master of Art Degree Thesis. Education Faculty, Kasetsart University.2012.

2-5 September 2017
Saen Palm Conventiona Hall
Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom, Thailand
ISBN 978-616-278-391-3

ACPES105-Full

STUDENTS' AFFECTIONS TOWARD PHYSICAL EDUCATION

Heny Setyawati[1], Fatona Suraya[2], Rivan Saghita Pratama[3]

[1] *Faculty of Sports Science, Universitas Negeri Semarang, F1 Building 1st Floor Sekaran*
Gunungpati Semarang, 50229, Republic of Indonesia

Abstract

The Indonesian national system put students as the object of learning and their voice are likely not counted. In fact, asking and listening to the students' affections toward their learning interest are very essential to create an effective learning (Foley, 2015). This research is an explorative research design aims to investigate the students' affections toward Physical Education based on three criteria: awareness, seriousness and activeness in Joining Physical Education. A purposive sampling method was used; pointing on 3 cities in central Java Province which representing 3 parts of Central Java, those are Semarang City (central), Tegal City (western) and Salatiga City (Eastern). There were 10 % of the total students on 57

schools in Central Java (3404 students) were investigated. Physical education participation. The result showed that for the indicator of students seriousness 73, 1 % is in good category, the students' awareness 57.9% is in good category and for the activeness 67. 0% is in good category. It suggested that the students' affections are in good condition and it should be the consideration of teacher, lecturer and stakeholder to maintain or improve the condition for the effective learning of Physical Education.

1. Introduction

According to the Indonesian National Education System, Law number 20 year 2003, there are at least 3 actors who are responsible for the quality of national education, those are: parents, society and government (Chapter IV, Law No.20 year 2003). Students who are the object of education is not counted yet and role as passive subjects in Indonesia education system. In fact, asking and listening to the students' affections toward their learning interest are very essential to create an effective learning (Foley, 2015). Vgotsky as cited by Budiningsih (2011) emphasized that a meaningful learning, needed to be designed and developed based on the students' condition as they are the subject of learning. The minister of Education and Culture 2014-2016, Anies Baswedan was also pointed out on the important of listening to the students' aspiration "I want to hear from the students since they are the ones who will get the impact" (Hartono, 2014). In line with Baswedan, Watts (2009) saw the students as the main consumption of education; their perception could bring insight and information about education that they have received.

Physical Education is a requirement subject in Indonesia national curriculum; it covers 4 domains of learning: cognitive, physical, affective and psychomotor. The standard competences of Physical Education cover varieties of motor activities that should be available to be selected by students according to their interest. Nevertheless, "the students' right" to be a part of decision maker is likely has not been realized yet.

A preliminary research has been conducted in high schools in Central Java focusing on the position of Physical Education according to the students' perspective. There were 751 students participating from three different high schools: in central part (Semarang), western part (Tegal) and eastern part (Salatiga). The result showed that 60% of the students like Physical Education, 26% like certain materials only and the rest 14% did not like Physical Education. The result of the research suggested that in Physical Education conformity between material being taught and the way of teaching influenced the students' interest toward Physical Education. Nonetheless, there were minimum studies focusing on the actual condition of students' affections toward Physical Education. Therefore, this research focused on how is the students' affections toward Physical Education? The researcher focused on students point of view, students attitude, students expectation and students readiness on Physical Education subject. This study gave an accurate and comprehensive data about students' affections toward Physical Education for high school level in Central Java regency. The result of this study will be useful for curriculum, syllabus and lesson plan development. The stakeholder may considering the result of this study for reflection in decision making and policy control related to the Physical Education

2. Experimental Work

This research is an explorative research design since the object being investigated is the unknown information and never been explored before in Central Java. The population is high school students in Central Java province and the sample are students from 57 high schools (private and public) in three different cities. The sample were taking using purposive

sampling method, pointing 3 cities in Central Java Province which representing 3 parts of Central Java, those are Semarang City(central), Tegal City (western) and Salatiga City (Eastern). There were total 29.881 students in the sample school and 10 % of the total students (3404 students) were investigated using a set of closed questionnaire. All of the questionnaires were well submitted and answered completely. The data were interpreted using hermeneutic approach.

3. Results and Discussion

The students` affections toward Physical Education are evaluated using 3 main indicators: the first one is the students' seriousness in learning Physical Education; the second one is the students' awareness to join and participating in Physical Education course, and the last one is the students' activeness in joining Physical Education course.

The frequency distribution from the three indicators can be seen in table 3.1 as follows:

Tabel 3.1 Frequency Distribution of Students' Affections toward Physical Education

Categories	Interval	Sub 1		Interval	Sub 2		Interval	sub 3		Interval	Indikator	
		f	%		F	%		F	%		F	%
Excellent	24-28	443	13	17-21	1302	38,2	15-17	218	6,4	54-64	580	17
Good	19-23	2487	73,1	13-16	1970	57,9	12-14	2279	67	44-53	2502	73,5
Average	14-18	462	13,6	9-12	123	3,6	9-11	863	25,4	34-43	312	9,2
Below Average	9-13	12	0,4	5-8	9	0,3	6-8	44	1,3	24-33	10	0,3
Mean	20,81			16,09			12,10			49,01		

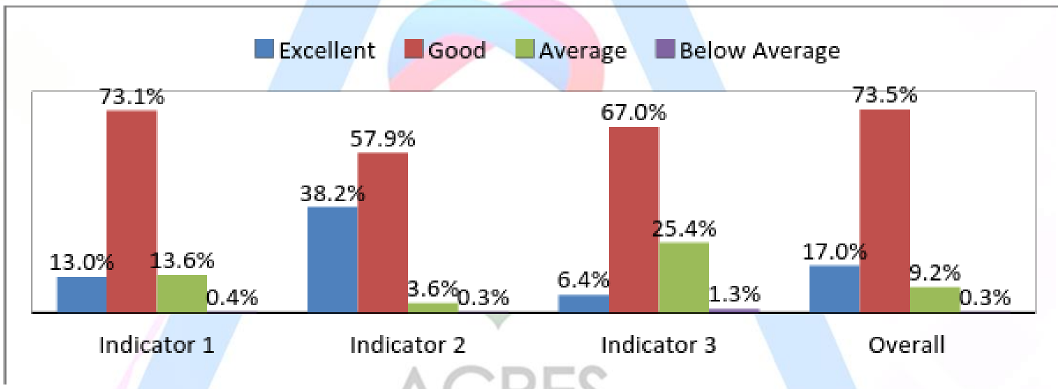


Figure 3.1 The Indicator of Students' Affections toward Physical Education

According to table 3.1 we could explain that:

1. For indicator number 1, students' seriousness in joining Physical Education is in the good category which is at intervals 19-23. It shown that 13,0% is in excellent category, 73,1% is in good category, 13,6% is in average category, and 0,4% in below average.
2. For indicator number 2 on awareness lie in the good category that is at intervals 13-16. It shown that 38.2% are in excellent category, 57.9% in good category, 3.6% in average category, and 0.3% is in below average category.
3. For indicator number 3 is the activeness of learners in learning Physical Education; it is in good category that is at interval 12 - 14. It shown that 6.4% in excellent category, 67,0% in good category, 25,4% In average category, and 1.3%. is in below average category.

4. For the analysis of the interpretation, can be seen that the affection of learners against Physical Education is in the good category, that is at intervals 44 - 53. Those are: 17.0% in excellent category, 73.5 % in good category, 9.2% in fair category, and 0.3 % is in below average category.

In order to find out the data dissemination of the students' affections toward Physical Education between gender, class/grade, and age that have been interpreted to the scoring category, a cross tabulation analysis was conducted. The result of distribution of score can be seen in table 3.2 :

Tabel 3.2 A Cross Tabulation on the Students` Affections toward Physical Education

Class/Grade	Age	Gender	Categories			
			Excellent	Good	Average	Below Av
	15 years	Boy	39	269	27	0
		Girl	25	209	14	1
	16 years	Boy	41	181	29	
		Girl	79	247	28	
	17 years	Boy	10	36	9	
		Girl	9	33	3	
	18 years	Boy	1	0		
		Girl	1	1		
Grade X	total		205	976	110	1
	15 years	Boy	5	19	1	1
		Girl	1	4	1	0
	16 years	Boy	39	233	42	1
		Girl	22	147	10	1
	17 years	Boy	54	193	38	3
		Girl	38	221	28	3
	18 years	Boy	16	35	11	
		Girl	2	25	1	
Grade XI	total		177	877	132	9
	15 years	Boy		1		
		Girl		7	0	
	16 years	Boy		4	1	
		Girl	27	141	16	
	17 years	Boy	41	108	8	
		Girl	72	173	26	
	18 years	Boy	55	202	15	
		Girl	0	6	2	
	19 years	Boy	3	7	2	
Grade XII	total		198	649	70	
Total			580	2502	312	10

According to the cross-tabulation of the distribution data above, comparing between the characteristics of respondents by sex and age from the total 3404 respondents, It can be explained that the distribution of students answer are in good category. From the results of the data above, the distribution then proceeded by analyzing the coefficient of IQV to explain each distribution of data variability of respondents based on class, age, and gender. The calculation results of the distribution of IQV data is as follows:

Table 3.3 Index of Qualitative Variation (IQV) Students' Affection toward Physical Education

Respondent		Coefficient Score of IQV
Grade	X	0,52
	XI	0,56
	XII	0,59
Age	15 years	0,42
	16 years	0,56
	17 years	0,59
	18 years	0,62
	19 years	0,68
Gender	Boy	0,59
	Girl	0,52

From the table above it can be explained that IQV respondents based on class variability is higer in class XII with IQV value of 0.59. IQV respondents based on age variability is higher at the age of
19 years old with an IQV of 0.68, while IQV respondents by type of gender is more variable in men with a value of 0.59. From the results of IQV above it can be explained that the variability of the distribution or distribution of data indicator students' affection toward Physical Education has a different distribution of data for each group. It means that the data collected shows the distribution of data varies. With the result of variability of class group distribution in class XII, age group at age
19 years and variability of distribution group of male
gender.

4. Conclusions

The data showed that students seriousness 73,1 % is in good category, the students awareness57.9% is in good category and for the activeness 67,0% is in good category. It can be concluded that the affection of learners towards Physical Education. It suggested that the students affections, according to the three mains indicators namely awareness, seriousness and Physical Education activities are in the good condition. The result should be the consideration of teachers, lecturers and stakeholders to maintain or improve the condition for the effective learning of Physical Education.

References

[1] Budiningsih, Asri. 2011. "Karakteristik Siswa Sebagai Pijakan Dalam 4Penelitian Dan Metode Pembelajaran". *Cakrawala Pendidikan, Jurnal Ilmiah Pendidikan*. Th.XXX. Vol.1, Februari 2011 (160-173). Yogyakarta: UNY.

[2] Foley, Dave. 2015. *5 Tips for Better Relationships With Your Students: Get to Know Your Students*. http://www.nea.org/tools/51057.htm (Retrived on Januari 6th, 2015)

[3] Hartono, Seno. 2014. *Mendikbud: Aspirasi Siswa SMA Sangat Luar Biasa*, Portal Kemendikbud, 13November 2014. http://kemdikbud.go.id/kemdikbud/node/3465 (Retrived on January 16th, 2015)

[4] Watts, Tirza Ramona. 2009. "Childrens Perception of a District-Wide Physical Education Program".*All Theses and Dissertations*. Brigham Young University BYU ScholarsArchive.

ACPES 2017
The 3rd International Conference on Physical Education, Health and Sport
ASEAN Council of Physical Education and Sport
"Best Practice for ASEAN+ Community: Enhancing Physical Activity, Physical Education, Sport, Health and Recreation"
2 - 5 September 2017
Saen Palm Convention Hall, Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom Thailand
Hosted by : Kasetsart University
UNIVERSITI TEKNOLOGI MARA

ACPES107-Full

KINEMATIC COMPARISON OF UPPER EXTREMITY AMONG FASTBALL, CURVEBALL, AND SLIDER IN COLLEGE PITCHERS

FajarAwangIrawan,*[1] Chuang Long-Ren,[2] Peng Hsien-Te[3]

[1]Semarang State University, Indonesia
[2]Chinese Culture University, Taiwan (R.O.C)
[3]Chinese Culture University, Taiwan (R.O.C)
fajarawang@gmail.com

Abstract

Previous baseball pitching studies have compared kinematics parameters among fastball, curveball, and slider, but did not indicate more stressful for collegiate pitchers. The purpose of this study was to compare kinematics data of upper extremity among fastball, curveball, and slider potentially dangerous. Twenty-four collegiate baseball pitchers volunteered in this study. After signed informed consent and placed forty-eight reflective markers on head, upper extremities and lower extremities, participant threw in a total of fifteen fastball, curveball, and slider randomly from pitcher plate marker to the target five meter away. Repeated measurement ANOVA was used to test differences of kinematic parameters among fastball, curveball, and slider. Eleven of twenty-two parameters showed significant differences. Another eleven parameters at foot contact, arm cocking, arm acceleration, and ball release displayed no significant differences based on kinematics comparison. Overall, kinematics analysis among fastball, curveball, and slider did not exhibited significant differences. Ball speed at fastball was faster compared to curveball and slider. Fastball was also dominant at foot contact and arm acceleration, while curveball take over domination in ball release at arm deceleration phases compared to fastball and slider. Understanding of kinematic

differences can help pitcher to select and learn different pitches. Pitcher should master the basic mechanics before he goes to the next level. This information may be used as guidelines to the coaches and pitchers to improve performance and injury prevention.

Keywords: Kinematic, pitching, fastball, curveball, slider.

1. Introduction

Pitching in baseball is one of the most complex motion than others. During pitching, pitcher has a series activity in his performance and each frame has differences. To understand this skill, more information about shoulder, elbow, forearm, and wrist of pitching is essential. Correct movement especially in the pitching technique can give the best result in every performance. Pitchers has many complexities different in the data collection. Some differences come from the anthropometric data, pitcher's level, pitching styles, motion analyses, and equipment used (ground, experiment room, and software application). Upper extremity has important role at the time of the pitching, while the lower extremity serves to balance the body and sustain movement when pitching. Shoulder, elbow, wrist, and fingers are the important parts in upper extremity to explain differences of personal pitching style (Seroyer et al., 2009).

Many kinetics and kinematics data are available and documented. Elliott, Grove, Gibson, & Thurston, (1986) published the first biomechanical study comparing fastball and curveball kinematics. Elliott focuses on forearm action prior to release, and wrist action at release between fastball and curveball. They found that the actions were similar for two pitches, but no data about slider was collected. Barrentine, Matsuo, Escamilla, Fleisig, & Andrews, (1998) compared kinematics data of the wrist and forearm for the fastball, curveball, and change-up. This comparison found that wrist extension for fastball and change-up pitches was greater than curveball, and forearm supination was greater for change-up than other pitches. Limitations in the pitching types about kinematics data that have not been revealed especially on the slider will be completed in the current study. Escamilla, Fleisig, Barrentine, Zheng, & Andrews, (1998) compared kinematics data on fastball, change-up, curveball, and slider pitches among collegiate pitchers. The result found during the arm cocking and arm acceleration phases that peak shoulder and elbow were generally greater in fastball and slider. Curveball data on twenty-six collegiate pitchers were not shown.

Proper biomechanics for adult pitchers was used to minimize the risk of injury and maximize performance. The greater shoulder and elbow activities produce the greater angles during arm cocking and arm acceleration (Fleisig, Barrentine, Zheng, Escamilla, & Andrews, 1999). Since adult pitchers did not demonstrate different position or temporal pattern, increase in joint forces and torques were most likely due to increased strength and muscle mass in higher level. Fleisig et al., (2006) also discussed about curveball, slider, and change-up were more dangerous than fastball. The result found kinematics differences between fastball and curveball especially in shoulder and elbow data, but slider was inconclusive because of small sample size. In current study, these findings can be revealed in deep to complement previous Fleisig's studies.

In another study, increased pitch counts have been linked to increased complaints of shoulder and elbow pain in youth pitchers. The result found that 169 youth pitchers with better pitching mechanics may help prevent shoulder and elbow injury in youth pitchers (Davis et al., 2009). Grantham, Byram, Meadows, & Ahmad, (2014) stated that shoulder external rotation was the most sensitive kinematic parameters in fatigue. Grantham, Iyengar, Byram, & Ahmad, (2015) also stated that overuse and poor throwing mechanics were contributor in pitcher injuries. The purpose of this study was to compare kinematics data of upper extremity on fastball, curveball, and slider potentially dangerous or injuries.

2. Methods

Twenty-four collegiate baseball pitchers from division I (12 pitchers) and division III (12 pitchers) with a mean age of 19.72 (18 - 24 years old) volunteered in this study. All participants

were familiar and had a basic of fastball, curveball, and slider pitches. All participants were in healthy condition, no injury or recovering from an injury at the time of testing. The participants had a mean age 19.72 ± 1.5 years, mean height 178.3 ± 7.3 cm, and mean mass 74.9 ± 14.3 kg. Each participant signed an informed consent and were placed forty-eight markers on head, upper extremities and lower extremities. But four markers in right medial knee, left media knee, right medial ankle and left medial ankle will be removed after static posture. Pitching test was held in indoor laboratory with flat ground. The target was located five meters away from the pitching marker on standing position. Participant then was asked to throw in a total of fifteen fastball, curveball, and slider randomly from pitcher's plate marker. Eleven cameras (Eagle system, Motion Analysis Corporation, Santa Rosa, CA) with sampling rate 200Hz and 1000Hz shutter speed was used. After tracking the data, each of the XYZ time series for the markers position data were filtered using a fourth-order Butterworth low-pass filter with a cut-off frequency of 13.4 Hz (Fleisig et al., 1999). Kinematic parameter was calculated with Motion Monitor to compute the musculoskeletal human models using motion-capture data (Fleisig& Escamilla, 1996; Stodden, Fleisig, McLean, Lyman, & Andrews, 2001;Nakamura, Yamane, Fujita, & Suzuki, 2005).

Data collection and analyses consisted of procedure similar to that used in previous studies (Fleisig, Andrews, Dillman, & Escamilla, 1995; Fleisig& Escamilla, 1996), with some modifications to show more detail information in the shoulder, elbow, wrist and forearm. Forty-four reflective markers were placed bilaterally at bonny landmarks of the participants and four temporary markers will be removed after static posture data collection. Three markers placed on the head (two in the left and right front head, and one in the back head), four markers placed on the torso (7th cervical vertebrae, 12th thoracic vertebrae, clavicula, and sternum), fourteen markers placed on the right and left arm (right acromioclavicular, right coracoid process, right acromial angles, three markers in the right upper arm, right elbow, three markers in the right forearm, two markers in the wrist, base knuckle 2nd finger, base knuckle 5th finger, left shoulder, left upper arm, left elbow, left forearm, two markers in the left wrist), five markers placed on the pelvis (right anterior superior iliac spine, left anterior superior iliac spine, right posterior superior iliac spine, left posterior iliac spine, and sacrum), and sixteen markers placed on the leg (right thigh, right knee, right shank, right ankle, right heel, right toe, left thigh, left knee, left shank, left ankle, left heel, left toe, right medial knee, left medial knee, right medial ankle, left medial ankle).

Five tests were collected for each of three pitches variations. Participant threw regularly same as in practice and competition. The order of pitch was randomized for each participant. There was a brief rest approximately fifteen seconds between pitches, and the fastest and correct pitch was analyzed. Sakurai, (2000) used calculations based on vectors determined from marker locations, while in the current study used calculations based on vectors determined from joint center locations estimated from marker locations. Ball velocity was recorded using a radar gun (Stalker Radar, Plano, Texas, USA). Descriptive data are presented as means ± standard deviation. Repeated measurement ANOVA was used to test the effects of pitching phases among fastball, curveball, and slider. The significance level was set at $p < .05$. All data were analyzed using SPSS Statistics 22 software (IBM Corporation, Chicago, IL).

3. Results

Current study result show eleven of twenty-two parameters showed significant difference among pitch types (Table 1). Elbow extension and shoulder external rotation at foot contact were significant differences. Maximal elbow extension, maximal shoulder external rotation, and maximal forearm rotation showed significant differences at arm cocking. Parameters at arm acceleration also has significant differences on shoulder external rotation, forearm supination, and wrist extension. Two parameters on elbow extension and forearm supination at ball release in arm deceleration phase revealed significant differences. Another kinematic parameter was significant showed at ball speed. Eleven other parameters at foot contact, arm cocking, arm acceleration, and ball release in arm deceleration displayed no significant differences based on kinematics parameters.

Table 1. Kinematics differences among fastball, curveball, and slider

Parameters	Fastball (n = 24)	Curveball (n = 24)	Slider (n = 24)	*p*-value	Compared test
Ball Speed (km/h)	104.46 ± 9.55	82.92 ± 8.56	87.17 ± 8.21	.000*	F>C, F>S, S>C
Foot contact					
Wrist extension (°)	32.5 ± 1.3	25.9 ± 2.2	30.2 ± 1.9	.762	-
Elbow extension (°)	73.5 ± 12.5	95.7 ± 15.7	81.1 ± 12.5	.002*	F<C, F<S, S<C
Shoulder external rotation (°)	46.9 ± 8.3	40.6 ± 5.3	26.9 ± 10.9	.000*	F>C, F>S, S<C
Forearm pronation (°)	22.6 ± 9.8	29.5 ± 7.0	24.8 ± 9.5	.064	-
Arm cocking					
Maximal wrist extension (°)	34.5 ± 1.3	29.3 ± 2.2	33.6 ± 1.8	.231	-
Maximal elbow extension (°)	131.7 ± 10.5	125.8 ± 9.1	118.5 ± 12.5	.001*	F>C, F>S, S<C
Maximal shoulder horizontal adduction (°)	46.24 ± 16.5	47.7 ± 14.3	45.4 ± 11.4	.075	-
Maximal shoulder external rotation (°)	107 ± 8.3	102 ± 6.6	99.4 ± 6.7	.000*	F>C, F>S, S<C
Maximal forearm supination (°)	109.8 ± 22.9	70.4 ± 16.2	50.8 ± 9.2	.000*	F>C, F>S, S<C
Arm acceleration					
Shoulder external rotation (°)	95.1 ± 8.3	94.3 ± 6.4	88.8 ± 6.8	.049*	F>C, F>S, S<C
Forearm supination (°)	56.6 ± 23.1	48.4 ± 16.2	43.2 ± 9.7	.038*	F>C, F>S, S<C
Wrist extension (°)	22.6 ± 2.9	16.8 ± 4.2	14.3 ± 3.9	.000*	F>C, F>S, S<C
Elbow extension (°)	106.6 ± 10.3	112.4 ± 8.9	100.8 ± 10.8	.147	-
Ball release					
Elbow extension (°)	74.3 ± 31.8	72.9 ± 28.4	60.3 ± 23.2	.042*	F>C, F>S, S<C
Shoulder external rotation (°)	83 ± 15.1	85.9 ± 9.3	81.7 ± 7.9	.571	-
Shoulder abduction (°)	51.2 ± 23.4	52.7 ± 21.9	52.8 ± 20.2	.950	-
Shoulder horizontal adduction (°)	41.4 ± 12.4	45.5 ± 11.7	42.3 ± 12.8	.385	-
Forearm supination (°)	35.4 ± 31.8	56.6 ± 34.4	12.2 ± 10.9	.000*	F<C, F>S, S<C
Wrist extension (°)	1.8 ± 5	3.2 ± 3.6	3.7 ± 1.0	.667	-
Forward trunk tilt (°)	34 ± 10.6	37 ± 11.8	35 ± 10.4	.566	-
Lateral trunk tilt (°)	28.6 ± 11.2	29 ± 11.3	26 ± 10.6	.756	-

Data are means ± SDs.
F= Fastball, C= Curveball, S= Slider, n= total subject.
* Significant difference at $p < .05$

4. Discussion

Ball speed in this study showed that fastball was the fastest than curveball and slider pitches. Our finding has been supported Barrentine, Matsuo, Escamilla, Fleisig, & Andrews, (1998) and Fleisig et al., (2006) that ball velocity at fastball still on the top, and curveball was the slowest than other pitches. The maximum average of ball speed among fastball, curveball, and slider were not maximal. Previous studies found 122 km/h (34m/s) in Barrentine et al., (1998) and 126 km/h (35m/s) in Fleisig et al., (2006), but current study only showed 104 km/h in top speed. The short distance, flat ground, and limited space in indoor laboratory may affect the results of this study. Differences among equipment, place, design, procedure also cause the different result in each study. However, comparison among pitch types appear to depend on the segment of the body parameters. Fastball and curveball pitches appear to have kinematic similarities at the shoulder and elbow but different at the wrist and forearm.

Fastball has a greater kinematics parameter at shoulder external rotation in foot contact compared to curveball and slider. Meanwhile, elbow extension in curveball was greater than fastball and slider. This current study supported by Fleisig, Barrentine, Zheng, Escamilla, & Andrews, (1999) that the greater shoulder and elbow activities also produced greater angles during

arm cocking and arm acceleration phases. Barrentine et al., (1998) kinematic study found that during arm cocking and arm acceleration phases the peak of shoulder and elbow activities were greater in fastball and slider compared to curveball. Kinematics parameters in current study showed that maximal elbow extension at fastball was greater than curveball and slider in arm cocking. Maximal shoulder external rotation and maximal forearm supination were also dominant in fastball compared to curveball and slider pitches. There was no forearm data in Escamilla study can be compared to current study. At the arm cocking phase, forearm supination has been supported the segments of elbow flexion and shoulder external rotation at foot contact in the end of stride phase (Figure 1). Support continues to the maximal wrist extension, maximal shoulder horizontal adduction, and maximal shoulder external rotation to the arm cocking phase. Maximal external rotation has important part to elevate all parameters in each phase until ball release.

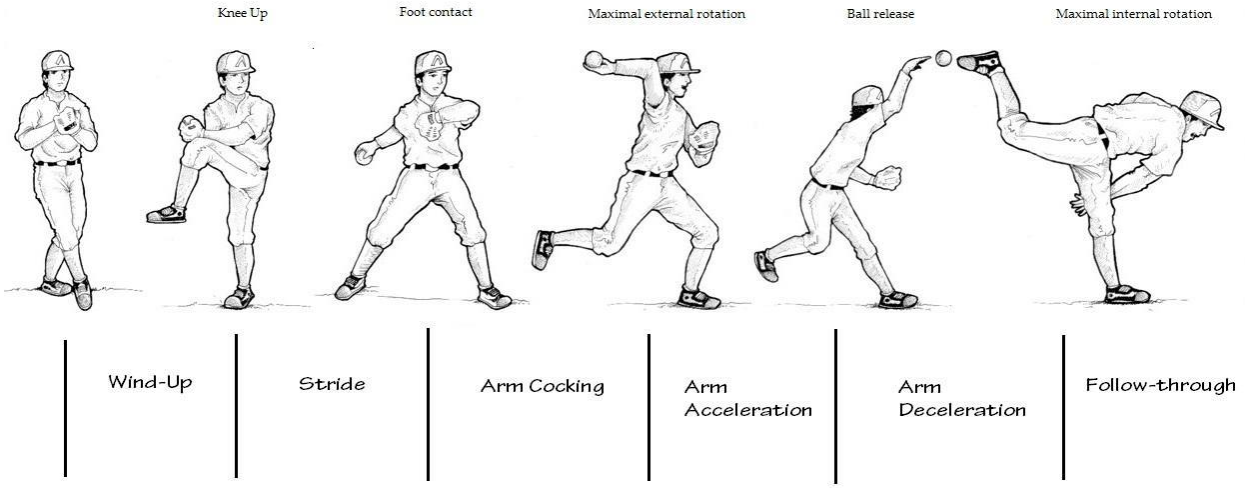


Figure 1. Pitching phases: wind-up, stride, arm cocking, arm acceleration, arm deceleration, and follow-through.

Wrist extension slightly greater in fastball compared to curveball and slider in arm cocking and arm acceleration phases. Similar information also found that ulnar deviation of the wrist activity at arm acceleration was slightly greater in fastball compare to another pitches (Irawan, Chuang, Peng, & Huang, 2016). However, the inclusion of wrist biomechanics is important for the current study because of differences between wrist and forearm kinematics among pitch types previously documented by Sakurai et al., (1993).

Shoulder external rotation, forearm supination, and wrist extension at arm acceleration phases were significant differences. Fastball and curveball were greater compared to slider in shoulder external rotation. Fastball also dominated the forearm supination in this phase compared to curveball and slider. Previous study Fleisig et al., (2006) also found that fastball take over and dominate the pitching motion compared to curveball and slider. Proper biomechanics pitching was discussed in Davis et al., (2009) and Grantham et al., (2015) studies to predict injury risk. Youth pitchers was used to evidenced pitching mechanics linked to increased complaints of shoulder and elbow injuries (Davis et al., 2009). Those studies supported current study that increased kinematics parameter might be proven to increasing the risk of injury. Interpreting data by analyzing functional anatomy can be more useful to detecting early potential injuries. Current result can be supposition that greater shoulder external rotation and elbow extension may cause possibilities of increased the risk of injury. Harada et al., (2010) suggested that decrease of range of motion at external rotation in shoulder and increased of muscle strength in external and internal rotation predispose elbow injuries. Kinematics data of those several possibilities above were presented in this current study (Table 1).

Elbow extension and forearm supination in ball release were significant differences. Although fastball was greater than curveball and slider in elbow extension, curveball was dominant in forearm supination at arm deceleration phase. Forearm started more supinate and remained more pronate during throwing curveball compared to fastball. Most of fastball will supinate even in small value and curveball will supinate in high intensity. Barrentine et al., (1998) found that result of

forearm supination in fastball and slider were similar. The physical examination showed pitcher will get injured when doing breaking ball (curveball) at high intensity.

Relation between each segment will elevate the best action inter muscle. The greater shoulder external rotation and elbow extension can be factor in increased of pain and injury. Increased of pitch counts have been linked to increased complaints of shoulder and elbow pain in pitchers. Davis et al., (2009) found 169 pitchers with better pitching mechanics can help to prevent shoulder and elbow injuries in pitchers. Any increased potential for elbow problems with the curveball pitch may be related to the position of the forearm at the time of the peak loads (Barrentine et al., 1998). The greater amount of supination during pitching may influence the ability of the elbow to accommodate the repetitive load. Ebben, Fotsch, &Hartz, (2006) stated that during curveball pitch, rapid ulnar deviation occurred simultaneously with wrist flexion while the forearm was in a more supinated position. Result of that previous study support the current study that wrist extension slightly greater in fastball compared to curveball and slider.

A common problem of unsuccessful pitching is having different pitcher's mechanic among pitch types they had, which allows batters can recognize pitch type early to hit the ball. Pitcher have to knows the shortcomings he has, then he should immediately improve his performance. The basis to improving appearance by performing correct movements especially in the upper extremity. If pitcher can take control the basic motion, he can elevate the skills to the next level.

5. Conclusion

Conclusion of this study that ball speed at fastball was faster compared to curveball and slider. Fastball was also dominant at foot contact and arm acceleration, while curveball take over domination in ball release at arm deceleration phases compared to fastball and slider. In another word, curveball has more injury risk than fastball and slider in arm deceleration phase. Increased kinematics parameter might be proven to increasing of pain and injury risk. Data interpretation by analyzing functional anatomy can be more useful to early detection of baseball pitching injuries. Limitation of current study was in indoor laboratory with short distance, flat ground, and limited space which possibility did not give maximum result in the pitching performance. Further studies are needed to complement the limitation in this study.

Understanding of kinematic differences can help pitcher to select and learn different pitches. Pitcher should master the basic mechanics. Strong fundamental is an important key to success for baseball pitcher to get to the next level. Pitcher also need to practice good form and attempt to duplicate the proper mechanics for each and every pitch. Coach will monitor every form and mechanics for any problems. The earlier a problem or inconstancy is identified then the quicker it can be remedied. This information may be used as guidelines to the coaches and pitchers to improve performance and injury prevention.

References

[1] Barrentine, S. W., Fleisig, G. S., Whiteside, J. a, Escamilla, R. F., & Andrews, J. R. (1998). Biomechanics of windmill softball pitching with implications about injury mechanisms at the shoulder and elbow. *The Journal of Orthopaedic and Sports Physical Therapy*, *28*(6), 405–415. http://doi.org/10.2519/jospt.1998.28.6.405

[2] Barrentine, S. W., Matsuo, T., Escamilla, R. F., Fleisig, G. S., & Andrews, J. R. (1998). Kinematic analysis of the wrist and forearm during baseball pitching. *Journal of Applied Biomechanics*, *14*(1), 24–39.

[3] Davis, J. T., Limpisvasti, O., Fluhme, D., Mohr, K. J., Yocum, L. a, Elattrache, N. S., &Jobe, F. W. (2009). The effect of pitching biomechanics on the upper extremity in youth and adolescent baseball pitchers. *The American Journal of Sports Medicine*, *37*(8), 1484–1491. http://doi.org/10.1177/0363546509340226

[4] Ebben, W. P., Fotsch, A., &Hartz, K. K. (2006). Multimode Resistance Training to Improve Baseball Batting Power. *Strength & Conditioning Journal*, *28*(3), 32–36.

[5] Elliott, B., Grove, J. R., Gibson, B., & Thurston, B. (1986). A three-dimensional

cinematographic analysis of baseball pitching. *Journal of Sport Biomechanics*, *2*, 20–28.

[6] Escamilla, R. F., Fleisig, G. S., Barrentine, S. W., Zheng, N., & Andrews, J. R. (1998). Kinematic comparisons of throwing different types of baseball pitches. *Journal of Applied Biomechanics*, *14*, 1–23.

[7] Fleisig, G. S., Andrews, J. R., Dillman, C. J., & Escamilla, R. F. (1995). Kinetics of baseball pitching with implications about injury mechanisms. The American Journal of Sports Medicine, 23(2), 233–239.

[8] Fleisig, G. S., Barrentine, S. W., Zheng, N., Escamilla, R. F., & Andrews, J. R. (1999). Kinematic and kinetic comparison of baseball pitching among various levels of development. *Journal of Biomechanics*, *32*(12), 1371–1375. http://doi.org/10.1016/S0021-9290(99)00127-X

[9] Fleisig, G. S., & Escamilla, R. E. (1996). Biomechanics of the Elbow in the Throwing Athlete. *Operative Techniques in Sports Medicine*, *4*(2), 62–68. http://doi.org/10.1016/S1060-1872(96)80050-5

[10] Fleisig, G. S., Kingsley, D. S., Loftice, J. W., Dinnen, K. P., Ranganathan, R., Dun, S., … Andrews, J. R. (2006). Kinetic comparison among the fastball, curveball, change-up, and slider in collegiate baseball pitchers. *The American Journal of Sports Medicine*, *34*(3), 423–430.

[11] Grantham, W. J., Byram, I. R., Meadows, M. C., & Ahmad, C. S. (2014). The Impact of Fatigue on the Kinematics of Collegiate Baseball Pitchers. *Orthopaedic Journal of Sports Medicine*, *2*(6), 2325967114537032–. http://doi.org/10.1177/2325967114537032

[12] Grantham, W. J., Iyengar, J. J., Byram, I. R., & Ahmad, C. S. (2015). The Curveball as a Risk Factor for Injury: A Systematic Review. *Sports Health: A Multidisciplinary Approach*, *7*(1), 19–26. http://doi.org/10.1177/1941738113501984

[13] Harada, M., Takahara, M., Mura, N., Sasaki, J., Ito, T., &Ogino, T. (2010). Risk factors for elbow injuries among young baseball players. *Journal of Shoulder and Elbow Surgery*, *19*(4), 502–507. http://doi.org/10.1016/j.jse.2009.10.022

[14] Irawan, F. A., Chuang, L.-R., Peng, H., & Huang, S. (2016). A Biomechanical Baseball Pitching : Is the curveball generating higher risk of injuries than fastball on young pitchers ? *Chinese Journal of Sport Biomechanics*, *13*(2), 55–63. http://doi.org/10.3966/207332672016121302002

[15] Nakamura, Y., Yamane, K., Fujita, Y., & Suzuki, I. (2005). Somatosensory computation for man-machine interface from motion-capture data and musculoskeletal human model. *IEEE Transactions on Robotics*, *21*(1), 58–66. http://doi.org/10.1109/TRO.2004.833798

[16] Sakurai, S. (2000). Motion analysis of overhand throwing: Past, present, and future. *Proceedings of XVIII International Symposium on Biomechanics in Sports*, (Figure 2), 13–19.

[17] Sakurai, S., Ikegami, Y., Okamoto, A., Yabe, K., & Toyoshima, S. (1993). A Three-Dimensional Cinematographic Analysis of Upper Limb Movement During Fastball and Curveball Baseball Pitches. *Journal of Applied Biomechanics*, *9*(1).

[18] Seroyer, S. T., Nho, S. J., Bach, B. R., Bush-Joseph, C. a., Nicholson, G. P., & Romeo, a. a. (2009). Shoulder Pain in the Overhead Throwing Athlete. *Sports Health: A Multidisciplinary Approach*, *1*(2), 108–120. http://doi.org/10.1177/1941738108331199

[19] Stodden, D. F., Fleisig, G. S., McLean, S. P., Lyman, S. L., & Andrews, J. R. (2001). Relationship of pelvis and upper torso kinematics to pitched baseball velocity. (Relation entre la cinematique du pelvis et du haut du torse et la vitesse de la ballelancee au baseball.). *Journal of Applied Biomechanics*, *17*(2), 164–172. Retrieved from http://www.humankinetics.com/.

ACPES108-Full

ACPES 2017
The 3rd International Conference on Physical Education Health and Sport
ASEAN Council of Physical Education and Sport
"Best Practice for ASEAN Community: Enhancing Physical Activity, Physical Education, Sport, Health and Recreation"
2 - 5 September 2017
Saen Palm Convention Hall, Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom Thailand

KINEMATIC COMPARISON OF UPPER EXTREMITY AMONG FASTBALL, CURVEBALL, AND SLIDER IN COLLEGE PITCHERS

FajarAwangIrawan,[*1] Chuang Long-Ren,[2] Peng Hsien-Te[3]

[1]*Semarang State University, Indonesia*
[2]*Chinese Culture University, Taiwan (R.O.C)*
[3]*Chinese Culture University, Taiwan (R.O.C)*

Abstract

Previous baseball pitching studies have compared kinematics parameters among fastball, curveball, and slider, but did not indicate more stressful for collegiate pitchers. The purpose of this study was to compare kinematics data of upper extremity among fastball, curveball, and slider potentially dangerous. Twenty-four collegiate baseball pitchers volunteered in this study. After signed informed consent and placed forty-eight reflective markers on head, upper extremities and lower extremities, participant threw in a total of fifteen fastball, curveball, and slider randomly from pitcher plate marker to the target five meter away. Repeated measurement ANOVA was used to test differences of kinematic parameters among fastball, curveball, and slider. Eleven of twenty-two parameters showed significant differences. Another eleven parameters at foot contact, arm cocking, arm acceleration, and ball release displayed no significant differences based on kinematics comparison. Overall, kinematics analysis among fastball, curveball, and slider did not exhibited significant differences. Ball speed at fastball was faster compared to curveball and slider. Fastball was also dominant at foot contact and arm acceleration, while curveball take over domination in ball release at arm deceleration phases compared to fastball and slider. Understanding of kinematic differences can help pitcher to select and learn different pitches. Pitcher should master the basic mechanics before he goes to the next level. This information may be used as guidelines to the coaches and pitchers to improve performance and injury prevention.

Keywords: Kinematic, pitching, fastball, curveball, slider.

1. Introduction

Pitching in baseball is one of the most complex motion than others. During pitching, pitcher has a series activity in his performance and each frame has differences. To understand this skill, more information about shoulder, elbow, forearm, and wrist of pitching is essential. Correct movement especially in the pitching technique can give the best result in every performance. Pitchers has many complexities different in the data collection. Some differences come from the anthropometric data, pitcher's level, pitching styles, motion analyses, and equipment used (ground, experiment room, and software application). Upper extremity has important role at the time of the pitching, while the lower extremity serves to balance the body and sustain movement when pitching. Shoulder, elbow, wrist, and fingers are the important parts in upper extremity to explain differences of personal pitching style (Seroyer et al., 2009).

Many kinetics and kinematics data are available and documented. Elliott, Grove, Gibson, & Thurston, (1986) published the first biomechanical study comparing fastball and curveball kinematics. Elliott focuses on forearm action prior to release, and wrist action at release between fastball and curveball. They found that the actions were similar for two pitches, but no data about slider was collected. Barrentine, Matsuo, Escamilla, Fleisig, & Andrews, (1998) compared kinematics data of the wrist and forearm for the fastball, curveball, and change-up. This comparison found that wrist extension for fastball and change-up pitches was greater than curveball, and forearm supination was greater for change-up than other pitches. Limitations in the pitching types about kinematics data that have not been revealed especially on the slider will be

completed in the current study. Escamilla, Fleisig, Zheng, & Andrews (1998) compared kinematics data on fastball, change-up, curveball, and slider pitches among collegiate pitchers. The result found during the arm cocking and arm acceleration phases that peak shoulder and elbow were generally greater in fastball and slider. Curveball data on twenty-six collegiate pitchers were not shown.

Proper biomechanics for adult pitchers was used to minimize the risk of injury and maximize performance. The greater shoulder and elbow activities produce the greater angles during arm cocking and arm acceleration (Fleisig, Barrentine, Zheng, Escamilla, & Andrews, 1999). Since adult pitchers did not demonstrate different position or temporal pattern, increase in joint forces and torques were most likely due to increased strength and muscle mass in higher level. Fleisig et al., (2006) also discussed about curveball, slider, and change-up were more dangerous than fastball. The result found kinematics differences between fastball and curveball especially in shoulder and elbow data, but slider was inconclusive because of small sample size. In current study, these findings can be revealed in deep to complement previous Fleisig's studies.

In another study, increased pitch counts have been linked to increased complaints of shoulder and elbow pain in youth pitchers. The result found that 169 youth pitchers with better pitching mechanics may help prevent shoulder and elbow injury in youth pitchers (Davis et al., 2009). Grantham, Byram, Meadows, & Ahmad, (2014) stated that shoulder external rotation was the most sensitive kinematic parameters in fatigue. Grantham, Iyengar, Byram, & Ahmad, (2015) also stated that overuse and poor throwing mechanics were contributor in pitcher injuries. The purpose of this study was to compare kinematics data of upper extremity on fastball, curveball, and slider potentially dangerous or injuries.

2. Methods

Twenty-four collegiate baseball pitchers from division I (12 pitchers) and division III (12 pitchers) with a mean age of 19.72 (18 - 24 years old) volunteered in this study. All participants were familiar and had a basic of fastball, curveball, and slider pitches. All participants were in healthy condition, no injury or recovering from an injury at the time of testing. The participants had a mean age 19.72 ± 1.5 years, mean height 178.3 ± 7.3 cm, and mean mass 74.9 ± 14.3 kg. Each participant signed an informed consent and were placed forty-eight markers on head, upper extremities and lower

extremities. But four markers in right medial knee, left media knee, right medial ankle and left medial ankle will be removed after static posture. Pitching test was held in indoor laboratory with flat ground. The target was located five meters away from the pitching marker on standing position. Participant then was asked to throw in a total of fifteen fastball, curveball, and slider randomly from pitcher's plate marker. Eleven cameras (Eagle system, Motion Analysis Corporation, Santa Rosa, CA) with sampling rate 200Hz and 1000Hz shutter speed was used. After tracking the data, each of the XYZ time series for the markers position data were filtered using a fourth-order Butterworth low-pass filter with a cut-off frequency of 13.4 Hz (Fleisig et al., 1999). Kinematic parameter was calculated with Motion Monitor to compute the musculoskeletal human models using motion-capture data (Fleisig& Escamilla, 1996; Stodden, Fleisig, McLean, Lyman, & Andrews, 2001;Nakamura, Yamane, Fujita, & Suzuki, 2005).

Data collection and analyses consisted of procedure similar to that used in previous studies (Fleisig, Andrews, Dillman, & Escamilla, 1995; Fleisig& Escamilla, 1996), with some modifications to show more detail information in the shoulder, elbow, wrist and forearm. Forty-four reflective markers were placed bilaterally at bonny landmarks of the participants and four temporary markers will be removed after static posture data collection. Three markers placed on the head (two in the left and right front head, and one in the back head), four markers placed on the torso (7^{th} cervical vertebrae, 12^{th} thoracic vertebrae, clavicula, and sternum), fourteen markers placed on the right and left arm (right acromioclavicular, right coracoid process, right acromial angles, three markers in the right upper arm, right elbow, three markers in the right forearm, two

markers in the wrist, base knuckle finger, base knuckle fifth finger, left shoulder, left upper arm, left elbow, left forearm, two markers in the left wrist), five markers placed on the pelvis (right anterior superior iliac spine, left anterior superior iliac spine, right posterior superior iliac spine, left posterior iliac spine, and sacrum), and sixteen markers placed on the leg (right thigh, right knee, right shank, right ankle, right heel, right toe, left thigh, left knee, left shank, left ankle, left heel, left toe, right medial knee, left medial knee, right medial ankle, left medial ankle).

Five tests were collected for each of three pitches variations. Participant threw regularly same as in practice and competition. The order of pitch was randomized for each participant. There was a brief rest approximately fifteen seconds between pitches, and the fastest and correct pitch was analyzed. Sakurai, (2000) used calculations based on vectors determined from marker locations, while in the current study used calculations based on vectors determined from joint center locations estimated from marker locations. Ball velocity was recorded using a radar gun (Stalker Radar, Plano, Texas, USA). Descriptive data are presented as means ± standard deviation. Repeated measurement ANOVA was used to test the effects of pitching phases among fastball, curveball, and slider. The significance level was set at $p < .05$. All data were analyzed using SPSS Statistics 22 software (IBM Corporation, Chicago, IL).

3. Results

Current study result show eleven of twenty-two parameters showed significant difference among pitch types (Table 1). Elbow extension and shoulder external rotation at foot contact were significant differences. Maximal elbow extension, maximal shoulder external rotation, and maximal forearm rotation showed significant differences at arm cocking. Parameters at arm acceleration also has significant differences on shoulder external rotation, forearm supination, and wrist extension. Two parameters on elbow extension and forearm supination at ball release in arm deceleration phase revealed significant differences. Another kinematic parameter was significant showed at ball speed. Eleven other parameters at foot contact, arm cocking, arm acceleration, and ball release in arm deceleration displayed no significant differences based on kinematics parameters.

Table 1. Kinematics differences among fastball, curveball, and slider

Parameters	Fastball (n = 24)	Curveball (n = 24)	Slider (n = 24)	*F-value*	Compared test
Ball Speed (Km/h)	104.46 ± 9.55	82.92± 8.56	87.17± 8.22	.000*	F>C, F>S, S>C
Foot contact					
Wrist extension (°)	32.5 ± 1.3	25.9 ± 2.2	30.2 ± 1.9	.762	-
Elbow extension (°)	73.5 ± 12.5	95.7 ± 15.7	81.1 ± 12.5	.002*	F<C, F<S, S<C
Shoulder external rotation (°)	46.9 ± 8.3	40.6 ± 5.3	26.9 ± 10.9	.000*	F>C, F>S, S<C
Forearm pronation (°)	22.6 ± 9.8	29.5 ± 7.0	24.8 ± 9.5	.064	-
Arm cocking					
Maximal wrist extension (°)	34.5 ± 1.3	29.3 ± 2.2	33.6 ± 1.8	.231	-
Maximal elbow extension (°)	131.7 ± 10.5	125.8 ± 9.1	118.5 ± 12.5	.001*	F>C, F>S, S<C
Maximal shoulder horizontal adduction (°)	46.24 ± 16.5	47.7 ± 14.3	45.4 ± 11.4	.075	-
Maximal shoulder external rotation (°)	107 ± 8.3	102 ± 6.6	99.4 ± 6.7	.000*	F>C, F>S, S<C
Maximal forearm supination (°)	109.8 ± 22.9	70.4 ± 16.2	50.8 ± 9.2	.000*	F>C, F>S, S<C
Arm acceleration					
Shoulder external rotation (°)	95.1 ± 8.3	94.3 ± 6.4	88.8 ± 6.8	.049*	F>C, F>S, S<C
Forearm supination (°)	56.6 ± 23.1	48.4 ± 16.2	43.2 ± 9.7	.038*	F>C, F>S, S<C
Wrist extension (°)	22.6 ± 2.9	16.8 ± 4.2	14.3 ± 3.9	.000*	F>C, F>S, S<C
Elbow extension (°)	106.6 ± 10.3	112.4 ± 8.9	100.8 ± 10.8	.147	-
Ball release					
Elbow extension (°)	74.3 ± 31.8	72.9 ± 28.4	60.3 ± 23.2	.042*	F>C, F>S, S<C

Shoulder external rotation (°)	83 ± 15.1	85.9 ± 9.2	81.7 ± 7.9	.571	-	
Shoulder abduction (°)	51.2 ± 26.4	54.5 ± 21.8	62.8 ± 20.2	.958	-	
Shoulder horizontal adduction (°)	41.4 ± 12.4	45.5 ± 10.7	42.5 ± 12.8	.385	-	
Forearm supination (°)	35.4 ± 31.8	56.6 ± 34.4	12.2 ± 10.9	.000*	F<C, F>S, S<C	
Wrist extension (°)	1.8 ± 5	3.2 ± 3.6	3.7 ± 1.0	.667	-	
Forward trunk tilt (°)	34 ± 10.6	37 ± 11.8	35 ± 10.4	.566	-	
Lateral trunk tilt (°)	28.6 ± 11.2	29 ± 11.3	26 ± 10.6	.756	-	

Data are means ± SDs.
F= Fastball, C= Curveball, S= Slider, n= total subject.
* Significant difference at $p < .05$

Discussion

Ball speed in this study showed that fastball was the fastest than curveball and slider pitches. Our finding has been supported Barrentine, Matsuo, Escamilla, Fleisig, & Andrews, (1998) and Fleisig et al., (2006) that ball velocity at fastball still on the top, and curveball was the slowest than other pitches. The maximum average of ball speed among fastball, curveball, and slider were not maximal. Previous studies found 122 km/h (34m/s) in Barrentine et al., (1998) and 126 km/h (35m/s) in Fleisig et al., (2006), but current study only showed 104 km/h in top speed. The short distance, flat ground, and limited space in indoor laboratory may affect the results of this study. Differences among equipment, place, design, procedure also cause the different result in each study. However, comparison among pitch types appear to depend on the segment of the body parameters. Fastball and curveball pitches appear to have kinematic similarities at the shoulder and elbow but different at the wrist and forearm.

Fastball has a greater kinematics parameter at shoulder external rotation in foot contact compared to curveball and slider. Meanwhile, elbow extension in curveball was greater than fastball and slider. This current study supported by Fleisig, Barrentine, Zheng, Escamilla, & Andrews, (1999) that the greater shoulder and elbow activities also produced greater angles during arm cocking and arm acceleration phases. Escamilla et al., (1998) in kinematics study found that during arm cocking and arm acceleration phases the peak of shoulder and elbow activities were greater in fastball and slider compared to curveball. Kinematics parameters in current study showed that maximal elbow extension at fastball was greater than curveball and slider in arm cocking. Maximal shoulder external rotation and maximal forearm supination were also dominant in fastball compared to curveball and slider pitches. There was no forearm data in Escamilla study can be compared to current study. At the arm cocking phase, forearm supination has been supported the segments of elbow flexion and shoulder external rotation at foot contact in the end of stride phase (Figure 1). Support continues to the maximal wrist extension, maximal shoulder horizontal adduction, and maximal shoulder external rotation to the arm cocking phase. Maximal external rotation has important part to elevate all parameters in each phase until ball release.

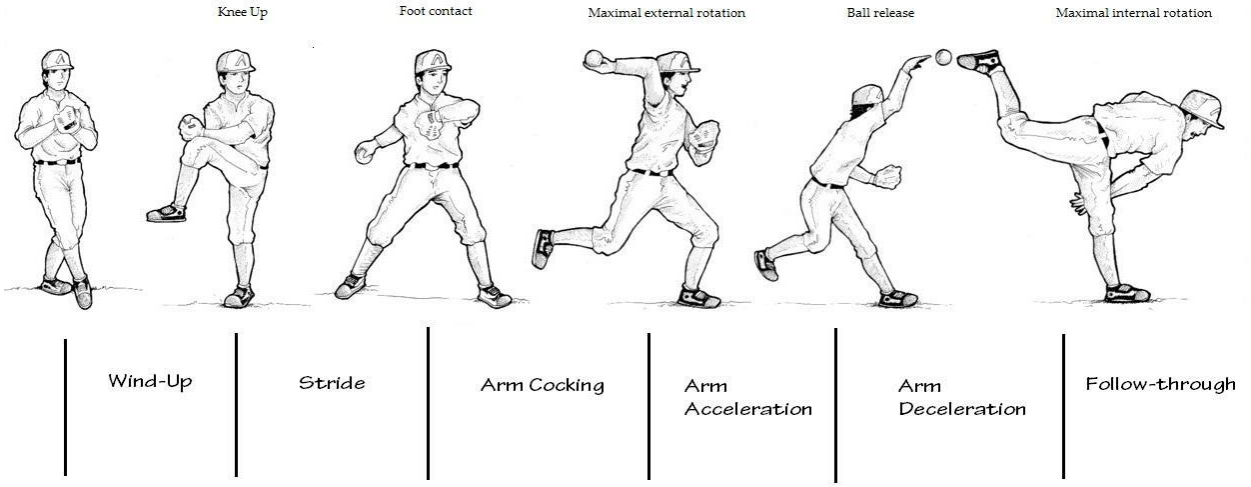


Figure 1. Pitching phases: wind-up, stride, arm cocking, arm acceleration, arm deceleration, and follow-through.

Wrist extension slightly greater in fastball compared to curveball and slider in arm cocking and arm acceleration phases. Similar information also found that ulnar deviation of the wrist activity at arm acceleration was slightly greater in fastball compare to another pitches (Irawan, Chuang, Peng, & Huang, 2016). However, the inclusion of wrist biomechanics is important for the current study because of differences between wrist and forearm kinematics among pitch types previously documented by Sakurai et al., (1993).

Shoulder external rotation, forearm supination, and wrist extension at arm acceleration phases were significant differences. Fastball and curveball were greater compared to slider in shoulder external rotation. Fastball also dominated the forearm supination in this phase compared to curveball and slider. Previous study Fleisig et al., (2006) also found that fastball take over and dominate the pitching motion compared to curveball and slider. Proper biomechanics pitching was discussed in Davis et al., (2009) and Grantham et al., (2015) studies to predict injury risk. Youth pitchers was used to evidenced pitching mechanics linked to increased complaints of shoulder and elbow injuries (Davis et al., 2009). Those studies supported current study that increased kinematics parameter might be proven to increasing the risk of injury. Interpreting data by analyzing functional anatomy can be more useful to detecting early potential injuries. Current result can be supposition that greater shoulder external rotation and elbow extension may cause possibilities of increased the risk of injury. Harada et al., (2010) suggested that decrease of range of motion at external rotation in shoulder and increased of muscle strength in external and internal rotation predispose elbow injuries. Kinematics data of those several possibilities above were presented in this current study (Table 1).

Elbow extension and forearm supination in ball release were significant differences. Although fastball was greater than curveball and slider in elbow extension, curveball was dominant in forearm supination at arm deceleration phase. Forearm started more supinate and remained more pronate during throwing curveball compared to fastball. Most of fastball will supinate even in small value and curveball will supinate in high intensity. Barrentine et al., (1998) found that result of forearm supination in fastball and slider were similar. That study also mentioned that some pitcher will get injured when doing breaking ball (curveball) at high intensity.

Relation between each segment will elevate the best action inter muscle. The greater shoulder external rotation and elbow extension can be factor in increased of pain and injury. Increased of pitch counts have been linked to increased complaints of shoulder and elbow pain in pitchers. Davis et al., (2009) found 169 pitchers with better pitching mechanics can help to prevent shoulder and elbow injuries in pitchers. Any increased potential for elbow problems with the curveball pitch may be related to the position of the forearm at the time of the peak loads (Barrentine et al., 1998). The greater amount of supination during pitching may influence the ability of the elbow to accommodate the repetitive load. Ebben, Fotsch, &Hartz, (2006) stated that during curveball pitch, rapid ulnar deviation occurred simultaneously with wrist flexion while the forearm was in a more supinated position. Result of that previous study support the current study that wrist extension slightly greater in fastball compared to curveball and slider.

A common problem of unsuccessful pitching is having different pitcher's mechanic among pitch types they had, which allows batters can recognize pitch type early to hit the ball. Pitcher have to knows the shortcomings he has, then he should immediately improve his performance. The basis to improving appearance by performing correct movements especially in the upper extremity. If pitcher can take control the basic motion, he can elevate the skills to the next level.

4. Conclusion

Conclusion of this study that ball speed at fastball was faster compared to curveball and slider. Fastball was also dominant at foot contact and arm acceleration, while curveball take over domination in ball release at arm deceleration phases compared to fastball and slider. In another word, curveball has more injury risk than fastball and slider in arm deceleration phase. Increased kinematics parameter might be proven to increasing of pain and injury risk. Data interpretation by

analyzing functional anatomy can be helpful to early detection of baseball pitching injuries. Limitation of current study was in indoor laboratory with short distance of background, and limited space which possibility did not give maximum result in the pitching performance. Further studies are needed to complement the limitation in this study.

Understanding of kinematic differences can help pitcher to select and learn different pitches. Pitcher should master the basic mechanics. Strong fundamental is an important key to success for baseball pitcher to get to the next level. Pitcher also need to practice good form and attempt to duplicate the proper mechanics for each and every pitch. Coach will monitor every form and mechanics for any problems. The earlier a problem or inconstancy is identified then the quicker it can be remedied. This information may be used as guidelines to the coaches and pitchers to improve performance and injury prevention.

References

[20] Barrentine, S. W., Fleisig, G. S., Whiteside, J. a, Escamilla, R. F., & Andrews, J. R. (1998). Biomechanics of windmill softball pitching with implications about injury mechanisms at the shoulder and elbow. *The Journal of Orthopaedic and Sports Physical Therapy*, *28*(6), 405–415. http://doi.org/10.2519/jospt.1998.28.6.405

[21] Barrentine, S. W., Matsuo, T., Escamilla, R. F., Fleisig, G. S., & Andrews, J. R. (1998). Kinematic analysis of the wrist and forearm during baseball pitching. *Journal of Applied Biomechanics*, *14*(1), 24–39.

[22] Davis, J. T., Limpisvasti, O., Fluhme, D., Mohr, K. J., Yocum, L. a, Elattrache, N. S., &Jobe, F. W. (2009). The effect of pitching biomechanics on the upper extremity in youth and adolescent baseball pitchers. *The American Journal of Sports Medicine*, *37*(8), 1484–1491. http://doi.org/10.1177/0363546509340226

[23] Ebben, W. P., Fotsch, A., &Hartz, K. K. (2006). Multimode Resistance Training to Improve Baseball Batting Power. *Strength & Conditioning Journal*, *28*(3), 32–36.

[24] Elliott, B., Grove, J. R., Gibson, B., & Thurston, B. (1986). A three-dimensional cinematographic analysis of the fastball and curveball pitches in baseball. *International Journal of Sport Biomechanics*, *2*, 20–28.

[25] Escamilla, R. F., Fleisig, G. S., Barrentine, S. W., Zheng, N., & Andrews, J. R. (1998). Kinematic comparisons of throwing different types of baseball pitches. *Journal of Applied Biomechanics*, *14*, 1–23.

[26] Fleisig, G. S., Andrews, J. R., Dillman, C. J., & Escamilla, R. F. (1995). Kinetics of baseball pitching with implications about injury mechanisms. The American Journal of Sports Medicine, 23(2), 233–239.

[27] Fleisig, G. S., Barrentine, S. W., Zheng, N., Escamilla, R. F., & Andrews, J. R. (1999). Kinematic and kinetic comparison of baseball pitching among various levels of development. *Journal of Biomechanics*, *32*(12), 1371–1375. http://doi.org/10.1016/S0021-9290(99)00127-X

[28] Fleisig, G. S., & Escamilla, R. E. (1996). Biomechanics of the Elbow in the Throwing Athlete. *Operative Techniques in Sports Medicine*, *4*(2), 62–68. http://doi.org/10.1016/S1060-1872(96)80050-5

[29] Fleisig, G. S., Kingsley, D. S., Loftice, J. W., Dinnen, K. P., Ranganathan, R., Dun, S., … Andrews, J. R. (2006). Kinetic comparison among the fastball, curveball, change-up, and slider in collegiate baseball pitchers. *The American Journal of Sports Medicine*, *34*(3), 423–430.

[30] Grantham, W. J., Byram, I. R., Meadows, M. C., & Ahmad, C. S. (2014). The Impact of Fatigue on the Kinematics of Collegiate Baseball Pitchers. *Orthopaedic Journal of Sports Medicine*, *2*(6), 2325967114537032–. http://doi.org/10.1177/2325967114537032

[31] Grantham, W. J., Iyengar, J. J., Byram, I. R., & Ahmad, C. S. (2015). The Curveball as a Risk Factor for Injury: A Systematic Review. *Sports Health: A Multidisciplinary Approach*, *7*(1), 19–26. http://doi.org/10.1177/1941738113501984

[32] Harada, M., Takahara, M., Maruyama, H., Sasaki, J., Inaba, Y., & Ogata, T. (2010). Risk factors for elbow injuries among young baseball players. *Journal of Shoulder and Elbow Surgery*, *19*(4), 502–507. http://doi.org/10.1016/j.jse.2009.10.022

[33] Irawan, F. A., Chuang, L.-R., Peng, H., & Huang, S. (2016). A Biomechanical Baseball Pitching : Is the curveball generating higher risk of injuries than fastball on young pitchers ? *Chinese Journal of Sport Biomechanics*, *13*(2), 55–63. http://doi.org/10.3966/207332672016121302002

[34] Nakamura, Y., Yamane, K., Fujita, Y., & Suzuki, I. (2005). Somatosensory computation for man-machine interface from motion-capture data and musculoskeletal human model. *IEEE Transactions on Robotics*, *21*(1), 58–66. http://doi.org/10.1109/TRO.2004.833798

[35] Sakurai, S. (2000). Motion analysis of overhand throwing: Past, present, and future. *Proceedings of XVIII International Symposium on Biomechanics in Sports*, (Figure 2), 13–19.

[36] Sakurai, S., Ikegami, Y., Okamoto, A., Yabe, K., & Toyoshima, S. (1993). A Three-Dimensional Cinematographic Analysis of Upper Limb Movement During Fastball and Curveball Baseball Pitches. *Journal of Applied Biomechanics*, *9*(1).

[37] Seroyer, S. T., Nho, S. J., Bach, B. R., Bush-Joseph, C. a., Nicholson, G. P., & Romeo, a. a. (2009). Shoulder Pain in the Overhead Throwing Athlete. *Sports Health: A Multidisciplinary Approach*, *1*(2), 108–120. http://doi.org/10.1177/1941738108331199

[38] Stodden, D. F., Fleisig, G. S., McLean, S. P., Lyman, S. L., & Andrews, J. R. (2001). Relationship of pelvis and upper torso kinematics to pitched baseball velocity. (Relation entre la cinematique du pelvis et du haut du torse et la vitesse de la ballelancee au baseball.). *Journal of Applied Biomechanics*, *17*(2), 164–172. Retrieved from http://www.humankinetics.com/.

ISBN 978-616-278-391-3

COMMITTEE

Advisory Board

1. President of Kasetsart University
2. Vice President of Kamphaeng Saen Campus
3. Assistant to the President for Academic and International Affairs Kamphaeng Saen Campus
4. Dean of Faculty of Education and Development Sciences
5. Dean of Faculty of Education
6. Assoc. Prof. Udorn Ratanakakdi
7. Assoc. Prof. Dr. Bunjob Piromkam
8. Assoc. Prof. Dr. Supranee Kwanboonchan
9. Assoc. Prof. Dr. Vijit Kanungsukkasem

Organizing Commitee

1. Assist. Prof. Dr.Sirichai Sriprom
2. Assist. Prof. Dr.Sombat Onsiri
3. Assist. Prof. Dr.Atchara Purakum
4. Assoc. Prof. Dr.Mayuree Tanomsuk
5. Assoc. Prof. Dr.Winai Poonsri
6. Asist. Prof. Dr.Somboon Silrungtham
7. Assist. Prof. Dr.Toasak Kawjaratwilai
8. Assist. Prof. Dr.Praphan Kaittapao
9. Assist. Prof. Dr.Juthamas Butcharoen
10. Assist. Prof. Komgrich Choupanich
11. Assist. Prof. Chatchai Amitpai
12. Assist. Prof. Tharin Kanlueng
13. Dr. Achara Soachalerm
14. Dr. Suporntip Pupanead
15. Dr. Suppawan Vongsrangsap
16. Dr.Theeranan Tanphanich
17. Maj. Nutthakritta Sirisopon
18. Ms. Pornpen Lapho

ISBN 978-616-278-391-3

19. Mr. Bundit Thiabthong
20. Ms. Kanlapruk Polsorn
21. Ms. Warsittee Teamtaokerd
22. Mr. Nimit Meraksa

ASEAN Council of Physical Education and Sport Committte

1. Assoc. Prof. Dr. Vijith Kanungsukkasem	Consultant
2. Assoc. Prof. Dr. Supranee kwanboonchan	President
3. Assist. Prof. Dr. Koh Koon Teck	vice president for External Affair
4. Prof. Dr. John wang	Secretary General
5. Dr. Chaipat Lawsirirat	vice president for Internal Affair
6. Assoc. Prof. Dr. Tandiyo Rohayu	Assistant Secretary General
7. Assist. Prof. Dr. Atchara Purakom	Treasurer
8. Dr. Rebecca Alcuizar	Council Member
9. Dr. Raymond Ong	Council Member
10. Dr. Arporn Popa	Council Member
11. Dr. Mawarni Mohamed	Council Member
12. Dr. Lianyee Kok	Council Member
13. Dr. Leomie B. Lagrosas	Council Member
14. Dr. Pichit Muangnapoe	Council Member

ISBN 978-616-278-391-3

Symposium and Parallel Session September 3-4, 2017				
September 3, 2017 (1.00-3.45 PM.)				
Venue/ Time	P r			
Convention Hall	Symposium 1: Nutrition for Health: Best Practice for ASEAN+ Keynote: Prof.Dr.Oktia Woro Kasmini Handayani, M.Kes., Symposium 2: Wattbike: Wattbike Fundamental Testing Keynote: Mr.Tommy Yau, Wattbike Master Trainer Symposium 3: Physical Education in Cambodia Keynote: Mr.Naoki Nishiyama, NGO Hearts of Gold, South-East Asia Office, Director Symposium 4: Tonis Game: Interesting Game to Improve physical Fitness			
Chairperson/ Co-chair	Assist. Prof. Sonthaya Srirannatr Dr. Suportip Pupanead, Dr.Raul Calderron			
Venue/ Time	Room 1 Ton-Taln Training Building 1st floor	Room 2 Taln-Ging Training Building 1st floor	Room3 Tala-Far Training Building 1st floor	Room 4 Taln-Laung Training Building 1st
Chairperson	Assist.Prof.Dr.Sombat	Dr.Achara Soachalerm	Dr.Lian-Yee Kok	Assist.Prof.Dr.Koh Koon
Co-chair	Assist.Prof.Dr.Jutha mas	Maj.Dr.Nutthakritta Sirisopon	Assist.Prof.Dr.Suvimol Tangsujjapoj	Assist.Prof.Dr.Prapun Kiatpao
1.00-1.15 PM.	ACPES4 PHYSICAL ACTIVITIES TO CHILDREN WITH DOWN SYNDROME AT ILIGAN CITY SPEED CENTER: PROPOSED DEVELOPMENT PROGRAM *Ma. Leomie B.*	ACPES78 A STUDY OF NEED OF EXERCISE AND STAGE O FCHANGE FOR EXERCISE BEHAVIOR O FSTUDENT FROM KASETSART UIVERSITY KAMPHAENG-SEAN COMPUS *Suportip Pupanead*	ACPES44 WIDBALL AS ARECREATIONAL SPORT ALTERNATIVE *Widya Hary Cahyati*	ACPES3 PROGRESSIVE MUSCLE RELAXATION FOR PETANQUE ATHLETE UNIVERSITAS NEGERI SEMARANG 2017 *Taufik Hidayah*[1], Rivansaghita Pratama[2], AkhmadFajri

ISBN 978-616-278-391-3

Venue/ Time	Room 1 Ton-Taln Training Building 1st floor	Room 2 Taln-Ging Training Building 1st floor	Room3 Tala-Far Training Building 1st floor	Room 4 Taln-Laung Training Building 1st floor
1.15-1.30 PM.	ACPES6 ZUMBA EXERCISE PARTICIPATION: ITS EFFECT TO THE HEALTH STATUS OF ADULTS IN ILIGAN CITY *Corazon, T. Biong*[1], Rheamae, T. Amit[2], Vanessa Keith M. Pasco[3].*	ACPES14 EMOTIONAL INTELLIGENCE ON HEALTH BEHAVIOURS AMONG MALAYSIAN UNIVERSITY STUDENTS IN AMALAYSIAN PUBLIC UNIVERSITY: THE MEDIATION ROLE OF SELF EFFICACY *Roxana Dev O.D.[1], TengkuFadilah.T.K.[2], Soh. K.G.[3], Maria. C.A.[4], Ahmad*	ACPES62 ASSOCIATION BETWEEN BREAKFAST HABITS TIME MANAGEMENT LEVEL AND PHYSICAL ACTIVITY LEVEL AMONG SPORTS SCIENCE STUDENTS *Mohamad Hisyam Izzuddin Bin Mohamed Ishak[1], Razali Bin Mohammed Salleh[2]*	ACPES5 SPORTS IMPLICIT BELIEFS AND SPORTS EMOTIONS *Imelu, G. Mordeno*[1], Corazon, T. Biong[2], Gretelou, Sugano[3].*
1.30-1.45 PM.	ACPES7 PANGINHAS: A CULTURAL DANCE OF BORACAY *M. J. Gelit*1, M. Y. Ginoy2.*	ACPES25 RESEARCH ON NUTRITION ATHLETE OF PETANQUE NORTH SUMATERA *Liliana Puspa Sari*	ACPES 65 PURPOSES AND PROBLEMS OF PARTICIPATION IN LEISURE ACTIVITIES ON THE DORMITORY STUDENTS IN SOI PHAHOLYOTHIN 45 *AcharaSoachalerm1 and Kanlapruk Polsorn1*	ACPES 11 THE EFFECTS OF UTILIZING A PRE-SHOT ROUTINE AND BREATHING CONTROL ON THE ACCURACY OF PITCHING SHOT IN GOLF *Jittjang K.1, Bangpan, A.2, Thanajaturat, P.3, Kemarat, S.4, and Kemarat. C.5*
1.45-2.00 PM.	ACPES8 A FOLLOW UP STUDY OF A FORMALIZEDMENTORING PROGRAM FOR NOVICE BASKETBALL COACHES *LimZhi-Hao Adrian*1*	ACPES43 GUIDE FOOD SAFETYTO PREVENTION OF FOODBORNE DISEASES IN ISLAMIC BOARDING SCHOOL *Nur Siyam[1], Dyah Mahendrasari S.[2], Yunita Dyah Puspita Santik[3], and Widya Hary Cahyati[4]*	ACPES 83 ASSESSING THE FACTOR STRUCTURE OF SPORT EMOTIONS QUESTIONNAIRE-2 AMONG FILIPINO STUDENT-ATHLETES *Michelle Anne L. Ferolino[1], Imelu G. Mordeno[2], Jelli Grace C. Luzano3,and Ricel A. Navarro4*	ACPES16 REVIEWED ON FITNESS TRAING PROGRAM, MOTOR SKILL COMPETENCE (HRF) LEVEL AMONG URBAN OBESE CHILDREN *ZaharulAzwan bin Abdul Razak[1], Tan Chee Hian[2], and OngTah Fatt[3]*
2.00-2.15 PM.	ACPES 15 THE EFFECT OF GAMES TEACHING MODEL ON STUDENT'S MOTIVATION AND LEARNINT OUTCOME IN PHYSICAL EDUCATION AT SDN 01 PALAMBAYAN *Syamsuar Abbas1, and Reflianto2*	ACPES 89 EVALUATION OF PHYSICAL EDUCATION AND HEALTH PROMOTION CURRICULUM (5 YEARS) FACULTY OF EDUCATION NAKHONPATHOM RAJABHAT UNIVERSITY *NatwatSathirawiwat1, JuthamasButcharoen2,SombatOnsiri3, and WassanaKuna-Apisit4*	ACPES24 EFFORT TO NCREASE THROUGH LEARNING OUTCOMES LONG JUMP ORTODOKS STYLE WITH DEMONSTRATION METHOD OF CLASS VIII JUNIOR HIGH SCHOOL BAKTI FIELD PRIVATE CHARITY 2016 ACADEMIC YEAR *Devi CaturWinata*	ACPES17 BODY IMAGE AND LIFESTYLE PRACTICES AMONG BSPE IN MSU-MARAWI *Michelle, M. Layao*

ISBN 978-616-278-391-3

Venue/ Time	Room 1 Ton-Taln Training Building 1st floor	Room 2 Taln-Ging Training Building 1st floor	Room3 Tala-Far Training Building 1st floor	Room 4 Taln-Laung Training Building 1st floor
2.15-2.30 PM.	ACPES 20 EFFECT OF EXERCISE METHOD AND WRIST FLEXIBILITY ON THE RESULT OF SHOOTING FREE THROW BASKETBALL PRACTICE *Sulaiman*[*1] *andAgungMahendra*[2]	ACPES 53 HEALTH HABITS AND IFESTYLE OF GRADE 7 STUDENTS: EFFECTS ONTHEIR ACADEMIC PERFORMANCE *Monera A. Salic-Hairulla*[*1], *Angel M. Bontilao*[2], *Fritzie R. Lacayanga*[3] *, Norjaena P. Mudaq4, Joy*	ACPES28 A SYSTEMATIC REVIEW OF GAMIFICATION IN PHYSICAL ACTIVITY CONTEXTS *Sakchai Muangsrinoon*[*1] *,and Poonpong Boonbrahm*[2]	ACPES 18 IMPLICIT BELIEFS ON MENTAL TOUGHNESS: EXAMINING THE MEDIATION ROLE OF SPORTS EMOTION AMONG ATHLETES *A.K. Cainglet.*[1], *J.J. Nueva España.*[2], *and C.J. Pagaran*[3]
2.30-2.45 PM.	ACPES 21 PREPROCESSING FORPREDICTIVE PHYSICAL ACTIVITY MODELING *Muangsrinoon*[1], *and Poonpong Boonbrahm*[2]	ACPES1 WELLNESS ADVOCACY FOR THE ELDERLY OF THE FORTY-FORTY-FOUR BARANGAY OF ILIGAN CITY TO PHYSICAL FITNESS INTERVENTION PROGRAM: BASIS FOR A WELLNESS ADVOCACY FOR THE ELDERLY OF ILIGAN CITY *Corazon T.*	ACPES30 TRADITIONAL GAMES AS POTENTIAL MULTI-SPORTS EVENT IN SOUTHEAST ASIA *Billy Castyana*1, Mohammad Arif Ali1, Mawarni Mohamed2, Ani Mazlina*	ACPES 19 EFFECT OF L-CANITINE SUPPLEMENTION AND AEROBIC TRAINING ON VO2 MAXIN SOCCER PLAYERS *P. Suphat1, and T. Napatsawan2*
2.45-3.00 PM.	ACPES23 DEVELOPMENT OF MANIPULATIVE BASIC MOTION LEARNING MODEL FOR LEARNING DISABILITIES ELEMENTARY SCHOOL IN MEDAN CITY ***RatnaDewi***	ACPES2 EXPLORING KNOWLEDGE, ATTITUDES AND PRACTICE TOWARDS FOOD HYGIENE AMONG STUDENTS IN AMINUSALEH COLLEGE OF EDUCATION AZARE, BAUCHI STATE, NIGERIA *Shehusalihu*[*1], *Sugir Abdulkadir*[2]	ACPES 40 WOMEN IN TOP LEADERSHIP POSITIONS: PERCEIVING THE UNDERREPRESENTATION IN THE SPORT ORGANIZATIONS *Merian P. Aman1, Aminuddin Yusof2, Maimunah Ismail3, and Abu Bakar Mohamed Razali4*	ACPES2 RESPONSES OF BLOOD PRESSURE, RESTING HEART RATE, AND BODY WEIGHT TO SHORT-TERM MIXED IMPACT AEROBIC DANCE IN YOUNG ADU *Mohammad Arif Ali,* 1 Sugiarto,1 Yu-Shiuan Chen,2 Yun-Zhen Chang,3*
3.00-3.15 PM.	ACPES26 PERFORMANCE LEVEL OF PHYSICAL EDUCATION TEACHERS IN STATE UNIVERSITIES AND COLLEGES OF REGION 10 Regina B. Dumdumaya	ACPES9 WELLNESS ENGAGEMENT: IT'S EFFECT ON THE JOB PERFORMANCE OF NON-TEACHING EMPLOYEES *Rebecca, M. Alcuizar*[*1], *Roden, O. Roden*[2], *Claire Joy A. Sumalpong*[3].	ACPES 97 ROLE OF TRAING GOAL SETTING AND MUSCLE RELAXATION AGAINST INCREASED CONFIDENCE TO SWIMMER PELATDA CENTRAL OF JAVA 2016 *Sungkowo, Kaswarganti Rahayu.*	ACPES33 DEVELOPING AQUAROBIC EXERCISE FOR OBESITY *SitiBaitul Mukarromah*

Venue/ Time	Room 1 Ton-Taln Training Building 1st floor	Room 2 Taln-Ging Training Building 1st floor	Room3 Tala-Far Training Building 1st floor	Room 4 Taln-Laung Training Building 1st floor
3.15-3.30 PM.	ACPES 31 THE STUDY OF MASCULINITY AND FEMINITY PERCEPTION TOWARD SWIMMING CLASS IN JUNIOR HIGH SCHOOL *Alfa Himmatul Aliyah*1, Supriyono2*	ACPES 12 ASSESSMENT OF HEALTH AND SAFETY IN PUBLIC EARLY EDUCATION INSTION *Bridget E. Abalorio[1], Michelle D. Apostol[2], and Riyan P. Butong[3]*	ACPES 58 LEARNERS' PERSPECTIVE ON MULTICULTURAL EDUCATION COMPONENTS *Josefina M. Tabudlong*	ACPES 36 EFFECT OF DIFFERENT REST INTERVALS BETWEEN SETS AND LOAD IN TENSITIES ON HEART RATE VARIABILITY AND BLOODPRESSURE AFTER A SINGLE STRENGTH TRAINING SESSION
3.30-3.45 PM.	ACPES 81 LANGUAGE IN FITNESS (A COMPARATIVE STUDY BETWEEN CONVENTIONAL LANGUAGE TEACHING AND CBI LANGUAGE TEACHING) *Fatona Suraya[1],Alma Saske Amidar[2], Muhammad Arif Ali[3],Gustiana Mega*	ACPES10 MALNUTRITION AMONGSELECT PUPILS OF ELEMENTARY SCHOOLS AND IT'S EFFECT TO THEIR ACADEMIC PERORMANCE *Rebecca M. Alcuizar[1], Brittany R. Colobio[2],Crisanta L. Quizon[3]*	ACPES 69 EFFORTS TO IMPROVE BASIC MANIPULATIVE MOTION ABILITIESTHROUGH TRADITIONAL PECAH PIRING GAME ON FOURTH GRADE STUDENTS OF SDIT AL- FAKHRISUNGGAL DELI SERDANG REGENCY FOR THE ACADEMIC YEAR 2016/2017	ACPES42 AWARENESS EDUCATION OF SPORT SUPPORTERS ON AGGRESSIVENESS PHENOMENA IN SCHOOL *Tan Chee Hian[1], Azizan Asmuni[2], Rahim Md Sail[3], Zaharul Azwan Abdul Razak[4], and Mawarni Mohamed[6]*

ISBN 978-616-278-391-3

Symposium and Parallel Session September 3-4, 2017

September 4, 2017 (10.45-12.00

Venue/ Time	Program			
Convention Hall	Recreation Perspective in Us Speaker by Prof.Dr.Barbara Schlatter			
Chairperson/ Co-chair	Assoc.Prof.Dr.Supranee Kwanboonchan			
Venue/ Time	Room 1 Ton-Taln Training	Room 2 Taln-Ging Training Building 1st floor	Room 3 Tala-Far Training Building 1st floor	Room 4 Taln-Laung Training Building 1st floor
Chairperson	Prof.Dr.Aminudiin Yusof	Assoc Dr.Tandiyo Rohayu	Dr.Chaipat Lowsirirat	Assist.Prof.Dr.Wanchai Boonrod
Co-chair	Dr.Kanlapapruk Polsorn	Lec.Budit Teabtong	Dr.Heny Setyawati	Dr.Leomie B. Lagrosas
10.45-11.00 AM.	ACPES27 THE DEVELOPMENT OF FUTSAL LEARNING MODEL-BASED ASSURE DESIGN IN STUDENTS OF SPORT EDUCATION AND HEALTH SCIENCE, FACULTY OF TEACHER TRAINING AND EDUCATION, SEBELAS MARET UNIVERSITY *Doewes, Rumi Iqbal.*	ACPES 63 MENTORING MODEL WITH BREASTFEEDING MOTIVATOR TO INCREASE EXCLUSIVE BREASTFEEDING DURATION AND COVERAGE IN KENDAL, INDONESIA *Mardiana[1], and Lukman Fauzi[2]*	ACPES49 THE ONSIDERATION OF SPORT SPONSORSHIP OF LARGE PRIVATE COMPANIES IN THAILAND *Sorasak Chaisathapol[1], Chaipat Lawsirilat[2], chara Chandrachai[3], and Tatri Taifapoon [4]*	ACPES 38 EFFECTTIVENESS OF THE MANAGEMENT OF CHILDREN WITHDISABILITIES PROGRAMME ON A SPECIAL NEEDS CHILD WITH SPLIT BRAIN *Mohd Halim bin Sahri[1], and Borhanuddin Abdullah[2]*

ISBN 978-616-278-391-3

Venue/ Time	Room 1 Ton-Taln Training Building	Room 2 Taln-Ging Training Building 1st floor	Room 3 Tala-Far Training Building 1st floor	Room 4 Taln-Laung Training Building 1st floor
11.00-11.15 AM.	ACPES 32 THE STUDY OF CHARACTER BUILDING THROUGH KARATE IN JUNIOR HIGH SCHOOL *Karomah Destri Dani Frafastari[1], Billy Castyana[2], and Ipang Setiawan[3]*	ACPES 66 MULTILEVEL PROMOTION TO INCREASE EXCLUSIVE BREASTFEEDING DURATION AND COVERAGE: SURVIVAL ANALYSIS IN KENDAL, INDONESIA *Lukman Fauzi[1], andLindra Anggorowati[2]*	ACPES 74 PERCEPTION OF BASKETBALL PLAYER IN INDONESIA *Oka Anastasari*	ACPES 39 COMPARISON OF HANDGRIP STRENGTH IN MALE NOVICE CLIMBERS FROM THREE ARTIFICAL WALL CLIMBING CATEGORIES *Siti Nursarah Salehhodin[1], Borhannudin Abdullah[2], Aminuddin Yusoff[3], and Shamsulariffin*
11.15-11.30 AM.	ACPES 34 EVALUATION OF CHANGES IN KNOWLEDGE, ATTITUDE AND SKILLS AMONG PRIMARY SCHOOL TEACHERS AFTER PARTICIPATING IN AN OUTDOOR EDUCATION PROGRAM *Shamsulariffin*	ACPES 77 VALIDATING THE ACHIEVEMENT GOALS QUESTIONNAIRE FOR SPORTS IN ADOLESCENT ATHLETES *Jelli Grace C. Luzano[1], Imelu G. Mordeno[2], Michelle Anne L. Ferolino[3], And Ricel A. Navarro[4]*	ACPES 75 SELF-EMOTION CONTROL THROUGH ARCHERY *Muhammad Zalazar*	ACPES48 INTEGRATING REFLECTIVE PRACTICE AND MENTA SKILLS TRAINING TO REACH PEAK PERFORMANCE: A CASE STUDY *Koh Koon Teck[1],and Kelvin Poon[2]*
11.30-11.45 AM.	ACPES 41 ASSOCIATION BETWEEN SELF-REPORTED PHYSICAL LITERACY AMONG PHYSICAL EDUCATORS IN SELANGOR AND THEIR STUDENT'S FITNESS LEVELS *Chew Yee Wee[1], and Kok*	ACPES84 THE ROLE OF PHYSICAL EDUCATORS ON HEALTH OF RURAL WOMEN *Rovie Gretchel P. Bucad1, Rebecca M. Alcuizar2, Arlene V. Reyes3, and Genera Trinidad4*	ACPES 76 THE POTENTIAL OF PENCAKSILAT AS PERFORMANCE ART IN INDONESIA *Sultoni*	ACPES 52 EFFECTS OF INTERVENTION TRAINING AND BEETROOT JUICE ON CARDIOVASCULAR ENDURANCE AMONG PRIMARY SCHOOL FOOTBALL PLAYERS *Gunathevan Elumalai[1], Maggheswaran Rajendran[2], Ahmad Hashim[3], Mohansundar Sangkaravel[4], and Fariba*
11.45-12.00 AM.	ACPES 45 THE INFLUENCE OF MOBILE PHONE TECHNOLOGY ON PHSICAL ACTIVITY: PERSPECTIVE OF URBAN YOUTH *Halina Omar1, Mawarni Mohamed2*	ACPES 88 THE INFLUENCE OF PERSONALITY TRAITS AND ACADEMIC ACHIEVEMENT ON PHYSICAL AND HEALTH EDUCATION STUDENTS: AN ANALYSIS TOWARDS MEDIATION TEACHING STYLES *Elssey Lessianna[1], Mawarni Mohamed[2]*	ACPES 80 PROGRESSIVE MUSCLE RELAXATION FOR SEMARANG STAGE UNIVERSITY PETANQUE ATHLETE 2017 *Akhmad Fajri Widodo[1], Taufik Hidayah[2], and Rivan Saghita Pratama[3]*	ACPES 57 FILIPINO INDIGENOUS AND ONLINE GAME: AN ASSESSMENT TOPSYCHOSOCIAL ADJUSTMENT OF SHS IN KALIPAY NATIONAL HIGH SCHOOL *April Ben O. Licayan*

Venue/ Time	Room 1 Ton-Taln Training Building	Room 2 Taln-Ging Training Building 1st floor	Room 3 Tala-Far Training Building 1st floor	Room 4 Taln-Laung Training Building 1st floor
12.00-12.15 AM.	ACPES47 STUDENTS' SATISFACTIONS TOWARD PHYSICAL EDUCATION *Heny Setyawati1, Fatona Suraya2, RivanSaghita Pratama3, Supranee Kwanboonchan4*	ACPES 90 EFFECTS OF MENTAL IMAGERY AND DEMONSTRATION ON THE ACQUISITION OF SOCCER DRIBBLING SKILLS OF PRIMARY 4 SCHOOL STUDENTS *Sodiya Olubunmi Oluwaseyi[1], and Syed kamaruzaman Syed Ali[2]*	ACPES 82 APPLIED TRADINAL GAMES PROGRAM FOR PHYSICAL FITNESS IMPROVEMENT IN ELEMENTARY STUDENT *Taraporn Suntorn[1], and Chairat Choosakhul[2]*	ACPES 59 THE EXTERNAL ATTRIBUTION AND WAYS TO RELIEVE THE ANXIETY AMONG VOLLEYBALL ATHLETES *HenySetyawati[1], and Rizky Putra Abdi[2]*

ISBN 978-616-278-391-3

September 4, 2017 (1.00-2.45 PM.)				
program				
Venue/ Time	Room 1 Ton-Taln Training Building 1st floor	Room 2 Taln-Ging Training Building 1st floor	Room 3 Tala-Far Training Building 1st floor	Room 4 Taln-Laung Training Building 1st floor
Chairperson	Prof.Dr.Josefina M. Tabudlong	Dr. Rebecca M. Alcuizar	Dr.Chaipat Lowsirirat	Dr.Chairat Choosakul
Co-chair	Dr.Suporntip Pupanead	Assoc.Prof.Dr.Somboon Silrungtham	Assist.Pro.Dr.Juthamas	Assoc.Dr.Mawarni Mohamed
1.00-1.15 PM.	ACPES 51 TEACHERS' ATTITUDES TOWARDS THE IMPLEMENTATION OF PHYSICAL EDUCATION SUBJECT IN SCHOOLS *Nabilah Yaakub[1], and Mawarni Mohamed[2]*	ACPES 91 IDENTIFICATION AND CHARACTERIZATION OF MULTIPLE INTELLIGENCE AMONG HIGH SCHOOL STUDENTS: IT'S IMPACT ON THE TEACHERS' PEDAGOGY *Edna B. Nabua[1], and Arlene Ramos[2]*	ACPES94 ENHANCING LEISURE LITERACY THROUGH LEISURE EDUCATION IN THAI SCHOOLS *Suvimol Tangsujjapoj*	ACPES 60 PHYSICAL ACTIVITY AND FITNESS: IT'S IMPACT ON ACADEMIC ACHIEVEMENT AND PERFORMANCE *April Ben O. Licayan[1], and Mon*
1.15-1.30 PM.	ACPES 54 FACTORS AND INTERESTS OF MSU-IIT COLLEGE OF EDUCATION SATHEIR PREERRED COURSE *Monera A. Salic-Hairulla[1], Ivy Coronel[2], Eljoy S. Mamintas[3], Mary Ann J. Patangan[4], Osuardo A.*	ACPES 96 IMPEDIMENTS TO UNEMPLOYMENT: IT'S IMPACT TO THE WELL-BEING OF AN INDIVIDUAL *Angel Mae J. Fabre[1], and Rizalina G. Gomez[2]*	ACPES 85 PERCEIVED RISKS LEVEL IN OUTDOOR ADVENTURE EDUCATION PROGRAMS: VIEWS OF PARTICIPANTS AND INSTRUCTORS *Mawarni, M. [1], and M. Azmi, M.*	ACPES 64 THE EFFECT OF YOGA EXERCISE TOWARD THE LEVEL OF PAINFUL MENSTRUAL PERIODS (DYSMENORRHEA) IN TEENAGER *Setya Rahayu[1], and Rendy Setya Aji*
1.30-1.45 PM.	ACPES 55 TEACHERS DURING PRACTICE TEACHING: BASIS FOR POLICY *Monera A. Salic-Hairulla[1], Jenevieve A. Tejero[2], Vincent N. Limbag[3], and Elesar V. Malicoban[4]*	ACPES 98 COUNSELING AND EARLY DETECTION OF BLOOD SUGAR LEVELS AS A DISEASE PREVENTION EFFORTS DIABETES MELLITUS IN SUSUKAN DISTRICT EASTERN UNGARAN OF SEMARANG *Ayuningtyas Yanusman1,*	ACPES 86 STATUS OF GROSS MOTOR SKILLS AMONGST CHILDREN AGED7 TO 9 YEARS IN SELANGOR *Ani Mazlina Dewi Mohamed[1], and Nur Ain Mohd Salman[2]*	ACPES 67 DEJECTION AND EXCITEMENT MEDIATES THE RELATIONSHIP BETWEEN SELF-REGULATION AND MENTAL TOUGHNESS IN SPORTS *Imelu G. Mordeno[1], Rebecca M. Alcuizar[2], Norelie R. Morales[3] and*
1.45-2.00 PM.	ACPES 70 EVALUATION OF THE KASETSART UNIVERSITY CURRICULUM IN THE MASTER OF ARTS IN PHYSICAL EDUCATION (DEVELOPMENT CURRICULUM) B.E.2554 *AcharaSoachalerm1, Chanchai Khuntisiri1,JutamasBucharoen1, PeeradecMaleehom1,Natchanon Sungpookand, SuriyanSuwankan1*	ACPES 99 TRANSFORMATION OF CADRE LEADERSHIP AS AN EFFORT TO IMPROVE NUTRITIONAL STATUS: CASE STUDY IN URBAN AREA IN INDONESIA *Sri Ratna Rahayu1, OktiaWoroKasmini H.2, EfaNugroho3, and*	ACPES 102 EFFECT OF DIFFERENT RECOVERY PROCEDURES ON POST COMPETITION OF MEN VOLLEYBALL PLAYERS *Tongdecharoen Wisute*	ACPES68 IMPLICIT BELIEFS ON SPORTS ENGAGEMENT: EXAMINING THE MEDIATION ROLE OF SPORTS EMOTION AMONG THLETES *Rebecca M. Alcuizar1, Imelu G. Mordeno2, Hannah Joy Batucan3,andGay*

ISBN 978-616-278-391-3

Venue/ Time	Room 1 Ton-Taln Training Building 1st floor	Room 2 Taln-Ging Training Building 1st floor	Room3 Tala-Far Training Building 1st floor	Room 4 Taln-Laung Training Building 1st floor
2.00-2.15 PM.	ACPES 71 EFFORTS TO IMPROVE THE LEARNING OUTCOMES OF VOLLEY BALL PASSING THROUGH THE METHOD OF DEMONSTRATION AND TOOL MODIFICATION OF GRADE VIII STUDENTS OF NATIONAL SCHOOL NUMBER 2 JUNIOR HIGH SCHOOL PERBAUNGAN	ACPES 100 HEALTH CARE PRACTICES OF MARANAO PRIMARY SCHOOL CHILDREN *Rizalina G. Gomez1, May A. Cañedo2, Masrora M. Hadji Zaman3and Somaya P. Solaiman4*	ACPES 106 A COMPARISON OF RATE OF FORCE DEVELOPMENT AMONG DIFFERENT ECCENTRICALLY WEIGHTED JUMP SQUAT LOADSIN COLLEGE RUGBY PLAYERS *Tongthong Songsuphap1, Chaipat lawsirirat2, and Chalerm Chaiwatcharaporn3*	ACPES 73 HOW TO IMPROVE COMMUNICATION SKILL THE STUDY OF COMMUNICATION BETWEEN COACH AND DEAF CHILDREN IN SWIMMING *Nuru*
2.15-2.30 PM.	ACPES 72 EFFORTS TO IMPROVE LEARNINT BASKETBALL DRIBBLING THROUGH APPLICATION OF LEARNING VARIATION IN STUDENTS OF CLASS XI NATIONAL SENIOR HIGH SCHOOL SATRIA DHARMA PERBAUNGAN 2016/2017 *Andi Nur Abady*	ACPES 104 INTERNAL AND EXTERNAL PERSONAL FACTORS AS RELATED TO HEALTH PROMOTION BEHAVIORS OF STUDENT AT KASETSART UNIVERSITY *Jutamas Bucharoen1, Achara Soachalerm2, Prasertsak Kainakha3, and Phubate*	ACPES107 EXERCISE BEHAVIOUR BASED ON TRANSTHEORETICAL MODEL OF MSU SPORTS SCIENCE STUDENTS *Chairat Choosakul*[1], Soh Kim Geok [2], Polpee Sangsuwor [3], Jeerasupa Amornpan [4], Chotika Boonthong [5] and ZeinabGhiami[6]*	ACPES 95 DETERMINANTS OF UNEMPLOYMENT AMONG JOBLESS RESIDENTS: BASIS FOR LIVELIHOOD AND ECONOMIC MANAGEMENT FRAMEWORK *Angel Lou J. Fabre[1], and Rizalina G. Gomez[2]*
2.30-2.45 PM.	ACPES 79 INFORMAL EDUCATION OF SEMARANG CITY BASED CONVENTION THROUGH FIK GOES TO PUBLIC *Rivan Saghita Pratama, S.Pd., M.Or.*	ACPES 105 STUDENTS' UNDERSTANDING ABOUT PHYSICAL EDUCATION: A COMPARATIVE STUDY BETWEEN INDONESIA AND MALAYSIA *Lulu April Farida[1], Tandiyo Rahayu[2], Taufiq Hidayah[3], and Mohd Salleh Aman[4]*	ACPES108 KINEMATIC COMPARISON OF UPPER EXTREMITY AMONG FASTBALL, CURVEBALL, AND SLIDER IN COLLEGE PITCHERS *FajarAwangIrawan,*[1] Chuang Long-Ren,[2] Peng Hsien-Te[3]*	ACPES 103 THE CONSTRUCTION OF FLEXIBILITY TEST OSAR Prototype Device *Tongdecharoen Orawan*

ISBN 978-616-278-391-3

ACPES 2017

2-5 September 2017

Kasetsart University
Kasetsart University Kamphaeng Saen Campus
Faculty of Education and Development Science
Faculty of Education
Department of Physical Education
Department of Physical Education and Sports