

# **Evaluation of Physical Fitness Related Practices of Keep Fit Club Members in the Cape Coast Metropolis of Ghana**

Richmond Stephen Sorkpor Tutor, OLA College of Education, Cape Coast- Ghana

Emmanuel Armah Enninful Tutor, Fosu Colleges of Education, Fosu- Ghana

Godwin Kenneth Anani Tutor, Komenda College of Education, Komenda- Ghana

#### **Abstract**

The purpose of this study was to conduct descriptive survey of practices of physical fitness activities among keep fit club members in the Cape Coast Metropolis of Ghana. The study sought to find out the related physical fitness activities practices keep fit club members in question engage in to show the basic principles they need to keep fit. A sample of 100 respondents was selected for the study. The instrument used to collect data was questionnaire. Data was analyzed using descriptive statistics. It was revealed that most of the physical exercises are not common to some instructors of keep fit clubs. Some members of keep fit clubs don't know the importance of some other practices like enough rest and regular check on their health. Also, members only treated minor injuries themselves. Most members think body composition is more important than cardiovascular development and are aware of health importance of keeping fit. It was recommended that they should learn more activities in other to vary their exercises. The issue of diet control must also be emphasized and resting as well. The duration of physical fitness activities must at least travel beyond 30 minutes. Regularity of keeping fit must also be looked at.

Keywords: Physical fitness, Keep fit, Aerobic activities, Principles of fitness

### Introduction

People who exercise regularly often choose activities that fit their lifestyles and individual preferences. These activities have the potential for helping them achieve a state of physical fitness. Physical fitness is achieved when the organic systems of the body are healthy and function efficiently so as to resist diseases to enable the fit person to engage in vigorous tasks and leisure activities, and to handle situations of emergencies.

The variety of approaches to the fitness unit reflects the differing views people have about fitness. In this regard, it may be useful to outline briefly the accepted understandings of the different forms of fitness. Thirty years ago, physical fitness was push-ups, straight-log sit-ups, pull-ups, sprinting a short distance and running a long distance, perhaps it should have been called military fitness, from which the tests originated.

Today, when discussing fitness, we need to distinguish its various forms, which include health fitness or health-related fitness, physical fitness or athletic fitness, and motor fitness or health fitness. It needs to be understood these three categories of fitness if there is the need to plan programmes to achieve the fitness goals specified.

Most young children are naturally physically active; they are inclined, however, to become sedentary as society and the environment make it increasingly difficult for them to remain active during late childhood and adolescence. As a result of investigations detailing the possible pediatric nature of coronary heart disease, an enthusiastic emphasis has been given to the study of fitness in school-age children. This emphasis has, in part promulgated the health fitness concern evident in physical education. Fitness problems in youth are often manifested in adults as degenerative diseases and chronic ailments. These problems are displayed in poor cardiovascular endurance, high levels of body fat, abdominal bulge, poor lower-back strength, and deficient lower-back flexibility (Payne and Halm, 2002).

Fitness programmes that demonstrate important outcomes are difficult to develop and maintain. First, physical education is not considered to be a vehicle purely for the development of fitness. Many other outcomes are important, and these too take time and programme resources to achieve. The second major constraint on achieving fitness goals is time. Improvement in cardiovascular fitness requires a minimum of 20 minutes of sustained aerobic exercise at 70 percent of maximum capacity at least three days per week. Strength and flexibility goals add to that time demand. Gaining adequate time for fitness and then using that time efficiently remains the most important ingredient in development and maintenance of good fitness programme.

Following a programme of regular aerobic exercise improves the efficiency of your cardiovascular and respiratory systems. Most specifically, regular aerobic exercise strengthens the muscles of the heart, enabling the heart to pump more blood with fewer strokes to meet the demand placed on it. As a result, the resting heart rate



may become slower than in the past, indicating that you have become physically fit. All the same time, the respiratory system becomes stronger and more efficient in delivering oxygen to the tissues of the body. This Cardiorespiratory fitness enables the body to deal with the routine and extraordinary demands of the daily life more easily. Cardiorespiratory fitness is the foundation for whole-body fitness. This fitness increases the capacity to sustain a given level of energy for a prolonged period. Thus the body can work longer and at greater levels of intensity. Cardiorespiratory fitness has important benefits for everyone, including children, pregnant women and older adults. In addition, improving your Cardiorespiratory (aerobic) fitness has a variety of benefits that can improve nearly all parts of life.

Nowadays, most Ghanaians have been educated enough to embrace the idea of keeping fit. Some do different types of activities to keep them going at times daily, every other day or weekly. Some do individual programmes, others with their peers or families, some also have formed clubs and they do different types of activities with the view to keeping fit. Cape Coast, the regional capital of Central Region is noted to be the educational hub of the nation with trading and white collar job oriented and minor fishing community. It links people from the south-east and western and middle belt of Ghana. Aside its busy nature, there are keep fit clubs and other clubs which do keep fit alongside their main activities and those groups which were formed purposely to keep fit. Some of these have technical instructors, others have not but they do what they deem to be good enough for them. Whether right programmes are followed, at correct periods at appropriate places and at regular times need to be evaluated.

# **Statement of the Problem**

According to Gleeson (2007), physical exercise helps in developing and maintaining physical fitness. It also improves alertness and overall health. It gives strength to the muscle, and helps in maintaining a healthy weight. Frequent and regular physical exercise boosts up the immune system and helps to prevent various diseases, such as, heart disease, diabetes, high blood pressure, bone diseases etc. Moreover, exercising prevents depression and improves mental health by relieving stress and anxiety. Exercise keeps the individual flexible and agile; it also increases strength and stamina. Sound sleep can be enjoyed by exercising regularly.

According to Williamson (1991), keep fit is a series or system of exercises intended to improve the circulation and respiratory system, suppleness and stamina, it is an exercise to promote physical fitness if performed regularly.

Recently, there are several groups springing up in all corners which are mostly seen on weekends on roads using different modes to exercise. The researcher upon careful observation of the activities and practices of keep fit clubs in the Metropolis and interacting with some of the members, it has become necessary to evaluate the practices of the members of these keep fit Clubs in the Metropolis.

# **Purpose of the Study**

The purpose of the study was to evaluate the practices of the members of keep fit clubs in the Cape Coast Metropolis. It was to identify whether keep fit clubs are aware of the appropriate fitness activities, the intensity of their training, frequency and duration of their activities. Also to find out if some of the practices have negative effects on the health of members.

### **Research Ouestion**

1. What Physical fitness related practices do keep fit club members in the Cape Coast Metropolis engage in to keep fit?

# Methodology

Descriptive survey design was employed. The target population of 500 was drawn from the members of the five registered keep fit clubs in the Cape Coast Metropolis. (Regional Sports Authority, 2016). Convenience sampling technique was used to select 100 respondents, 60 males and 40 females with at least ten of them selected from each of the registered clubs, 6 males and 4 females. The instrument developed for the study was a questionnaire. Respondents were requested to respond to each item on a four-point Likert scale.

# Results/Discussions

# Research Question: What Physical Fitness Related Practices do Keep Fit Club Members in Cape Coast engage in to keep Fit?

Table 1 shows the types of fitness related practices that members in the Cape Coast Metropolis keep fit clubs engage in to show that they go through basic principles needed to keep fit.



Table 1: Fitness Related Practices			
Fitness Related Practices	Yes (%)	No (%)	Total (%)
General Exercises			_
All-in tag	8 (8)	92 (92)	100 (100)
Number tag	5 (5)	95 (95)	100 (100)
Keeping in touch	0 (0)	100 (100)	100 (100)
Chasing partners	68 (68)	32 (32)	100 (100)
One against three	75 (75)	25 (25)	100 (100)
Scoring runs	100 (100)	0 (0)	100 (100)
Broncho tag	0 (0)	100 (100)	100 (100)
Imitating moving objects	95 (95)	5 (5)	100 (100)
Trotting/jogging	100 (100)	0 (0)	100 (100)
Astride jumping	100 (100)	0 (0)	100 (100)
Aerobics	100 (100)	0 (0)	100 (100)
Running on the spot	100 (100)	0 (0)	100 (100)
Here there where	100 (100)	0(0)	100 (100)
Picking tails	70 (70)	30 (30)	100 (100)
Number circles	94 (94)	06 (06)	100 (100)
Rat and rabbits	88 (88)	12 (12)	100 (100)
Overtaking	40 (40)	60 (60)	100 (100)
Fill in the basket	12 (12)	88 (88)	100 (100)
Bull in the ring	98 (98)	02 (02)	100 (100)
Link-on tag	0 (0)	100 (100)	100 (100)
Kangaroo jumps	15 (15)	85 (85)	100 (100)
Skipping	100 (100)	0 (0)	100 (100)
Step-ups	95 (95)	05 (05)	100 (100)
Specific Exercises			
Arm Circling	100 (100)	0 (0)	100 (100)
Hopping	90 (90)	10 (10)	100 (100)
Arm Sawing	48 (48)	52 (52)	100 (100)
Press-ups	100 (100)	0 (0)	100 (100)
Chinese tag of war	94 (94)	06 (06)	100 (100)
Pushing contest	8 (8)	92 (92)	100 (100)
Push-ups	98 (98)	02 (02)	100 (100)
Duck walk	14 (14)	86 (86)	100 (100)
Arm swinging	100 (100)	0(0)	100 (100)
Shoulder rotations	95 (95)	05 (05)	100 (100)
Arm flinging	64 (64)	36 (36)	100 (100)
Pull-ups	58 (58)	42 (42)	100 (100)
Trunk curls	04 (04)	96 (96)	100 (100)
Wrist circling	100 (100)	0 (0)	100 (100)
Lead frog	15 (15)	85 (85)	100 (100)
Shoulder Press	94 (94)	06 (06)	100 (100)
Trunk twist	0 (0)	100 (100)	100 (100)
Kicking the buttocks	94 (94)	06 (06)	100 (100)
Rounding the body	0 (0)	100 (100)	100 (100)
Squat jumps	5 (5)	95 (95)	100 (100)
Kicking horses	0 (0)	100 (100)	100 (100)
Caterpillar walk	0 (0)	100 (100)	100 (100)
Wheelbarrow	16 (16)	84 (84)	100 (100)
Waist circling	100 (100)	0 (0)	100 (100)
Trunk riffling	0 (0)	100 (100)	100 (100)
Back curls	0 (0)	100 (100)	100 (100)
Raising heels	98 (98)	02 (02)	100 (100)
Leg circling	100 (100)	0 (0)	100 (100)
Fireman's lift	0 (0)	100 (100)	100 (100)
Cock fighting	04 (04)	96 (96)	100 (100)
Games			
Musical chairs	100 (100)	0 (0)	100 (100)



Soccer	100 (100)	0 (0)	100 (100)
Volleyball	85 (85)	15 (15)	100 (100)
Handball	98 (98)	02 (02)	100 (100)
Anto ekyer	26 (26)	74 (74)	100 (100)
Netball	75 (75)	25 (25)	100 (100)
Running in athletics	100 (100)	0 (0)	100 (100)
Other Activities			
Control of diet	78 (78)	22 (22)	100 (100)
Keeping regular check	58 (58)	42 (42)	100 (100)
Resting enough	36 (36)	64 (64)	100 (100)
Reduce intake of alcohol	28 (28)	72 (72)	100 (100)
Stop smoking	14 (14)	86 (86)	100 (100)
Control my sexual lifestyle	38 (38)	62 (62)	100 (100)
Follow advise given me by my physician	68 (68)	32 (32)	100 (100)
Maintain household surroundings	85 (85)	15 (15)	100 (100)
			· ·

Concerning the responses given above, respondents were made to understand the activities named above and the way they are performed for them to make clear judgment. The fitness related practices were grouped under general, specific, games playing and other activities that are not vigorously done but can improve the fitness level of a person.

The results on the research question show clearly that certain activities are not known by people who decide to keep fit. Activities like All-in tag, number tag, broncho tag, fill in the basket, link on tag and kangaroo jumps under the general are very unpopular. Some activities like scoring runs, astride jump, aerobics, running on the spot, here there where, number circles, rat and rabbits, bull in the ring, skipping, and step ups are very popular among all the clubs. About the specific activities too, arm sawing, pushing contest, duck walk, trunk curls, lead frog, trunk twist, rounding the body squat jumps, kicking horses, caterpillar walk, wheelbarrow, trunk riffling, back curls, fireman's lift and cock fighting happened to be very unpopular while arm circling, hopping, press-ups, Chinese tag of war, push-ups, arm swinging, shoulder rotation, wrist circling, shoulder press, kicking the buttocks, waist circling, leg circling, raising heels were very popular with all the clubs. Apart from "anto ekyir", all the selected games happened to be practical by all. Concerning other practices other than physical activities, stopping smoking recorded low response. This may be due to the fact that only few smokers were involved in the fitness programme of the club. Reduction of alcohol intake also recorded low response because there may be few members who drink alcohol. It also came to light that only small percentage of respondents rest enough and only 38% control their sexual lifestyle. Controlling of diet, maintaining household surroundings and following advice given by physician recorded quite an appreciable level of responses while keeping regular check recorded an average response.

According to Borer, Wuorineen, Lukos, Denver, Porges and Burant (2009), to maintain your weight: Work your way up to 150 minutes of moderate-intensity aerobic activity, 75 minutes of vigorous-intensity aerobic activity, or an equivalent mix of the two each week. Strong scientific evidence shows that physical activity can help you maintain your weight over time. However, the exact amount of physical activity needed to do this is not clear since it varies greatly from person to person. It is possible that you may need to do this is not clear since it varies greatly from person to person. It is possible that you may need to do more than the equivalent of 150 minutes of moderate-intensity activity a week to maintain your weight.

They continued to speak about running as very important activity for fitness and said Running has proved to be beneficial in slowing the aging process. People, who run regularly, do not face muscle or bone loss in comparison to their counterparts. Running helps to enhance the glow of the face. It promotes the human growth hormone which helps in staying young. People diagnosed with osteoporosis, diabetes or hypertension, are advised to engage in running for a few miles per day. Running is beneficial in reducing the risk of heart attacks, by strengthening the heart, lowering blood pressure and maintaining the elasticity of arteries. Cancer patients are also advised to indulge in running as it proves to be helpful in improving their condition. Regular running raises HDL (good) cholesterol reduces the risk of blood clots and encourages use of the 50% of your lungs that usually go unused. Running has positive effects on the immune system. It creates a higher concentration of lymphocytes in the blood.

Vos et. al. (2005) continues with the following as the psychological benefits of running: Running also has a positive effect on the mind of the person. It builds confidence and gives a feeling of empowerment and freedom that comes with knowing the fact that your legs and body are strong and capable. We all know running reduces body weight and helps you gain a better self-image. With this, the runner also gets a boost in his/her personally and becomes more confident, than he/she ever was. Running relieves a person off stress. The feeling of high that you get while striding ahead, beating past the air, refreshes the mind and the heart completely. It might surprise you, but running has been used a treatment for curing clinical depression and addictions of all kinds. Patients



often feel less tensed, less depressed, less fatigued and less confused after indulging in the practice of running. The mind starts working fast when a person engages himself in running. While the body gets strength, the mind becomes more focused and determined.

According to Mahady (2007), regular aerobic or endurance exercise decreases your risks of chronic diseases such as heart disease, high blood pressure, high blood cholesterol, type II diabetes and obesity. Aerobic exercise increases the amount of good cholesterol in your blood, reduces your bad cholesterol and helps insulin to transport glucose into your cells. Aerobic exercise also improves the function of your heart and blood vessels, reducing your risks of high blood pressure. Endurance exercise improves your body's ability to use stored body fat as fuel for your exercise, reducing your risks of obesity. The American College of Sports Medicine encourages you to engage in 30 cumulative minutes of moderately- to vigorously-intense aerobic exercise three to five days a week to reduce your risks of chronic disease. Both aerobic and anaerobic exercise work to increase the mechanical efficiency of the heart by increasing cardiac volume (aerobic exercise), or myocardial thickness (strength training), such changes are generally beneficial and healthy if they occur in response to exercise. Not everyone benefits equally from exercise. There is tremendous variation in individual response to training; where most people will see a moderate increase in endurance from aerobic exercise, some individuals will as much as double their oxygen uptake, while others can never augment endurance. However, muscle hypertrophy from resistance training is primarily determined by diet and testosterone. http://en.wikipedia.org/wiki/Exercise cite note-23This genetic variation in improvement from training is one of the key physiological differences between elite athletes and the larger population. Studies have shown that exercising in middle age leads to better physical ability later in life.

Burfoot (2004) confirmed running as fitness activity by saying it is a fabulous workout to condition your body. It serves as the perfect remedy to get rid of your flabby abs and shed those extra pounds on your body. Not only it helps in fastening your weight loss program, but also it helps such as unhealthy lifestyle that they virtually have no time to work out, to strengthen their body and to keep fit. It is, thence, that running helps in strengthening your body muscles and keeping you in shape. Running also closes the gateway for diseases like breast cancer, heart stroke, diabetes, hypertension etc, thus protecting you from the clutches of these ugly problems.

He went further and agreed to step-ups and said Step has been around for more than 20 years and is still a popular workout. Focusing on aerobic fitness and leg conditioning step can be quite simple to follow or highly choreographed, depending on the type of class you attend. There are a wide variety of step class styles to choose from, including salsa, power and hip hop.

He added aerobics and said Aerobics is the original keep fit class. Aerobics classes differ tremendously, depending on the class instructor. Aerobics classes can be highly choreographed routines with a strong dance influences or very basic and easy to follow. Classes are often described as high or low impact, depending on the types of movements used. High impact classes involve movement where both of your feet leave the floor at the same time whereas low impact classes do not. Impact does not necessarily as there are high impact movements that are easy to do and low impact movements that are very challenging.

According to Austin (2006), there are so many types of fitness training. It can leave a person overwhelmed and under motivated. Here is a simple guide and categorization system to help you decide which types suit your personal goals. He continues to give the following as the types of fitness training: cardiovascular training, muscle and strength training and flexibility training.

Cardiovascular training: Consists of any exercise that increases your heart rate for a sustained period of time, such as running to lose weight. Most experts agree that raising your heart rate to 60%-80% of your maximum heart rate is optimal. Your maximum heart rate is 220 minus your age. So the maximum heart rate for a 40-year old would be 220-40=180, and 60% to 80% of that would be 108 to 144 beats per minute. A simple way to tell if you're working out at a level that will improve your cardiovascular fitness is the "talk test": if you cannot reasonably carry on a conversation during your workout, you're working too hard. On the other hand, too much chatting and not enough focus on your training can interfere with a good workout, so keep that in mind. A heart rate monitor is an excellent tool to gauge the intensity of your workout. Just fit the strap around your chest (under your shift) and slip on the wrist display to track your heart rate throughout your entire workout. Some heart rate monitors can even display the calories burned during your workout and track past workouts.

He went further to say that most aerobic and fitness classes are designed to use the same large muscle group rhythmically for a set amount of time, normally ranging from 30 minutes to an hour, while maintaining 65-75% of your maximum heart rate. When you are engaging in aerobic exercise, you should be able to have a conversation without feeling winded. He continues to give the following as some of the most popular forms of aerobic exercise classes:

Step training: Step training is a low impact form of exercise that involves music, platform ranging from 4-12 inches in height, and movement utilizing the large muscle groups of your body. Step aerobics provides a fairly intense workout, but the intensity can be modified to accommodate individual of most fitness and ability



### levels.

Also, to Kahn, Ramsey, Brownson (2002), the following are the types of physical fitness activities:

Aerobics: One of the best and most used types of fitness training is aerobics. Because aerobics caters to the needs of most people, a lot of individuals prefer having aerobic workouts as a training ground for heavier exercise later on. Aerobics provides for a healthy heart by increasing the cardiac output that an individual can achieve through its many forms of exercise. An increased heart rate would lead to better circulation which is needed by all organs in your body. If blood flows freely in the circulation, your organs and muscles would receive the right amount of oxygen that is needed during an exercise. Exercises that are started with aerobics are healthier for an individual as it prepares the heart for heavier workload during the later course of the program.

According to Parker-Pope (2001), there are various types of exercises and we can choose from them according to our purpose, age and health. For example, aerobic exercise, which are also called cardiovascular exercises, help to prevent heart and lung diseases. Aerobic dance, bicycling, swimming and few other examples of aerobic exercises. Another kind of exercise is weight-bearing exercise. It works against the force of gravity, and is important for building strong muscles and bones. Examples of weight-bearing exercises are walking, jogging, hiking and climbing stairs. Weight training or strength training exercise is done to build strength and muscles; its examples are push-ups, lifting weights etc. He continues with the following:

Individual choice of exercise: Every individual is different, so the need and purpose of the exercise differs from individual to individual. But it is suggested that on an average, person should exercise 4-6 times a week for around 30-45 minutes. Exercise has so many health benefits that if not much, any amount of exercise done is better than none at all. You can consult a doctor especially if you have any health problems, or if you are pregnant or old. It is recommended to consult a doctor regarding the kind of exercise which is best for you depending on your current health condition. Especially in case of pregnancy, you should never try any experience without the advice of your doctor, else it may create complications.

Daily routine exercise: Exercise does not mean spending hours working out in a gym. Certain day-to-day activities can help you attain al that which different exercise machines can provide. Such day to day exercise include taking the stairs instead of elevator, short walk after lunch or dinner, doing housework like gardening, sweeping, floor mopping etc. To reduce our body weight, we should restrict the use of remote controls and intercoms, also avoid using cars or bikes and prefer walking to nearby places. Walking is considered one of the best choices because it needs no training and can be done anywhere at any time. It only requires a good pair of shoes; so, put on those shoes and keep walking. Daily routine exercises include anti aging muscle toning exercise, breathing exercise for relaxation, butt toning exercises, exercises for firming chest, living healthy senior lifestyle, stretching exercises for the back, eye strengthening exercises, leg toning exercises. Others include neck strengthening exercises, posture correction exercise, shoulder strengthening exercises, strength training basics, thigh slimming exercises, types of cardio exercises and working out with dumbbells.

# **Conclusions**

It was clear that most of physical exercises are not common to some instructors of keep fit clubs and may force them to be repeating some activities which are familiar to them. Some keep fit club members perhaps may not know the importance of some other practices like enough rest and regular check on their check. Even though it was noticed that some injured persons treat themselves, this may be that, their injury may be minor and may not make it known and some victims are not sent to the hospital because of less severity of the injury. Ideally, keeping fit for 20-30 minutes may be appropriate but respondents considered the total time spend during their keep fit activities.

# Recommendations

The following recommendations were made for the study;

- 1. Organizers of keep fit should find ways of helping their members to measure their improvement while keeping fit.
- Organizers should try and learn other exercises so as to vary their exercises in order not to bore their members who may think that almost all the exercises are known by them and that may affect their turnup.
- 3. The issue of diet control must also be emphasized as well as resting.
- 4. Education on whatever necessary for one to be physically fit should be very paramount for all members irrespective of your academic level most especially on the benefits of joining the club in terms of health rather than social benefits.

### References

Archives of Internal Medicine (2005). *Outcomes of quality physical education*. Reston, VA: AAHPERD. Austin, J. Q. (2006). *Personal sport and technology – Now more than a course!* Paper presented at the National



- Conference on Technology in Physical Education and Sport. Ball State University, Munice, IN.
- Borer, C. Wuorineen, M. Lukos, J., Denver, Y., Porges, Z. & Burant, P. (2009). *Developmental physical education for today's children (3<sup>rd</sup> ed.)*. Dubuque, IA: Brown & Benchmark.
- Burfoot, A. (2004). Fitness the Ravenel way. In R. Pate & R Hohn (Eds.), *Health and Fitness through physical education*. Pp. 211-214. Champaign, IL; Human Kinetics.
- Gleeson, P. (2007). Special physical education: Physical activity, sport and recreation. Englewood Cliffs, NJ: Prentice Hall.
- Hu, J., Mason, M. Stampfer, P. & Graham, G. (2001). *Integrating sport into the physical education curriculum in New Zealand Secondary Schools*. Quest, 44, 304-316.
- Issue of Preventing Obesity and Chronic Diseases (2009). Community asset. Athletic Business, 18(3), 20.
- Kahn, T. Ramsey, P. Brownson, P. (2002). School physical education: Effect of the child and adolescent trial for cardiovascular health, *Preventive Medicine*, 25(4), 423-431.
- Mahady, T. (2007). The American College of Sports Medicines. Active Youth: Champaign, IL: Human Kinetics.
- O'Connor, M., Crowe, N. T., Spinks, J. (2005). Citrus county fitness break: Funding and developing fitness videotapes. In R. Pate & R. Hohn (Eds.), *Health and Fitness through physical education* (pp. 205-209). Champaign, IL: Human Kinetics.
- Parker-Pope, M. J. (2001). Fitness of life (4th ed.). Glenview, IL: Scott, Foresman-Addison-Wesley.
- Payne, W. A., Hahn, D. D. (2002). Understanding your health. New York, McGraw-Hill Companies Inc.
- Regional Sports Authority (2011). Yearly reports presented to National Sports Council. Accra.
- Stampfer, P., Hu, J., Manson, M. Rimm, Q. & Willeth, T. (2000). *Teaching sport concepts and skills: A tactical games approach*. Champaign IL: Human Kinetics.
- Thase, M. (2007). A review of research on time in sport pedagogy. *Journal of Teaching in Physical Education*, 8(2), 87-103.
- University of Cambridge. (1996). Cambridge International Dictionary of English. London, Cambridge University Press.
- USDA (2010). Published Scientific Research. Blackwell Science, Oxford, U.K. pp. 347.
- Van Praag, V., Kempermann, B. & Gage, T. (1999). *Designing groupwork: Strategies for the heterogeneous classroom* (2<sup>nd</sup> ed.). New York: Teachers College Press.
- Vos, G. Singh, S. Ross, E. & Stavrinos, D. (2005). Cooperative learning in an elementary physical education programme. *Researcher Quarterly for Exercise and Sport*, 68(suppl. 1), A-68.
- WHO (2004). Guidelines for school and community programme to promote lifelong physical activity among young people. *Morbidity and Mortality Weekly Report*. 46(RR-6), 1-36.
- Williamson, C. (1991). The effects of a token economy programme on appropriate behaviour and motor task performance of educable mentally retarded children in adapted physical education. Unpublished doctoral dissertation, Ohio State University, Columbus.
- Wilmore, V., Knuttgen, Y. (2003). *Analyzing physical education and sport instruction (2<sup>nd</sup> ed.)*. Champaign, IL: Human Kinetics.