THE EFFECTIVENESS OF COMBINATION OF LSD AND STEPPING EXERCISES IN WEIGHT LOSE TRAINING PROGRAMME AMONG MALE ADULTS

Tan Chee Hian

ABSTRACT

The purpose of this study is to find out how effective is the combination physical activities such as Long Slow Distance Run (Henceforth, LSD) and stair case stepping (STEPS) on the adults’ weight lose. Case study was the design with the intervention method across 2 continuous cycles (across years of 2009 to 2011). There were 8 adult males, voluntarily as the subjects of this study and they were in the range of 43 to 50 years old and weight average of 86 Kilogrammes. Daily food intake in Kilocalories referred and recorded and the Kilocalories burning of the combination physical activity daily were referred and recorded daily throughout this study. The final result showed that 8 (100 %) out of 8 subjects recorded an average weight loss of 3 to 5 Kilogrammes (5.8%) for the first cycle and 82 Kilogrammes was the end result. As the result, this study indicated that the combination of LSD and STEPS activities had significantly in reducing adults’ weight for the first cycle and the body weight of all 8 subjects were maintained at 82 Kilogrammes after the period of time. Hence, this finding has re-justified the effectiveness of the principle of training especially the progressive and mainly overload principles gained overall better result in weight losing as well as this could be concluded that in terms of physiological adaptation of one’s body to the various training would have better curve of form and various of intensity of the physical activities were carried out as far as maintenance body weight for adults were concerned.

Keywords: Long Slow Distance Run, Weight Lose & Physical Activity.

INTRODUCTION

Physical activity and cardiovascular fitness are related to the risk of most cardiovascular endurance diseases and as well as in the effort of reducing weight or weight lose. The exercise physiologist’s concepts on cardiovascular endurance are an individual’s aerobic capacity or aerobic power, which is the ability to supply oxygen to the working muscles during physical activities.

Cardiorespiratory endurance is best developed through vigorous physical activities involving large muscles. Once the proper type of activity has been selected then the principles that allow could be applied in designing both daily training sessions or physical activity programmes and it was recommended by Paul M. Ribes since 1980.

Therefore, a layman is being required to fulfill two main forms of fitness or aerobic exercise. There are various ways of training or exercise in order to put off one’s body weight which involved the two different energy systems. For example, short high-intensity efforts above the lactic threshold, followed by long recoveries, are good for
training the anaerobic system as our bodies get used to tolerating the buildup of lactic acid and then flushing it from the muscles. Conversely, longer intervals force us to run at a lower intensity (below the lactic threshold) which means that it could be used a shorter recovery time as there will not be as much lactic acid in our muscles to get rid of. This trains the aerobic system and is a good exercise for one’s heart and lungs workout.

Background of the Study

When talk about exercise or physical activity, all people needed to adapt to it (aerobic and anaerobic system), so they could expand their energy during their physical activities/exercises to cover throughout 90 minutes (Reilly, 1994).

According to America College of Sports Medicine (Henceforth, ACSM) fitness book (2006), the effective exercise routine to enhance all areas of physical fitness are three simple step approaches to develop and maintain fitness, which a physical activity practitioner, or an instructor who teaches exercises, need to identify:

1. Where is the exercise at now (starting point- early stage of physical activity and in this case – subjects’ weight)
2. Where does the exercise want to go (fitness goal- weigh lose)
3. How was the exercise get there (successful changes – end result of the weighting scale records from all subjects).

In this study, the Long-Slow Distance Run (Henceforth, LSD) was workout with Steps used since there was a continuous training that could increase cardiovascular fitness and planning systematic training for that purpose; it suites the sedentary lifestyle people. The principles involved in designing such as a programme was the same as for the all endurance exercise.

Long-slow distance run is a term originally coined to describe running at a steady pace to develop an aerobic base. Unfortunately, as it evolved, the emphasis was on slow. This was a huge mistake. The result was proficiency at running slowly for a prolonged period. This has a little carryover to racing - Remember, the goal of training is to prepare to race perhaps was for daily physical fitness maintained.

Steps activity in this study could define as involvement of plyometric sign of exercise by stepping 450 stair cases which was trigonometry count about 2 KM distance stepping which was “flying” in a short seconds before the following step considered, this cause the system of cardiorespiratory worked harder and increasing of intensities of working load with the subjects’ body weight concerned.

However, in this study, the emphasis method should be on long and steady distance. Select a degree of effort that allows the adults to run a steady effort for the duration of the distance with good running mechanics. This type of physical activity needs to be a means to an end and must be combined with other means of training, including speed work. Unfortunately for many runners, it has become an end to itself. Moreover, in this study, it was mainly to venture into combination LSD’s effect and plyometric effects on weight losing of a group of sedentary lifestyles people.

LSD is an easy and comfortable run at approximately 65%-80% Maximal Heart Rate (about 1-1/2 to 2 minutes per mile slower than current 5 KM race pace). The major benefits of these runs are increases muscle capillary size and density, increases size and number of mitochondria, increases red blood cell and hemoglobin concentration and total blood volume, increase the muscles’ ability to extract oxygen from the blood, and enhance the muscle’s ability to store carbohydrate and rely on fat as fuel.

LSD was a training technique consisting of physical activity necessarily in low intensity, and a cyclic nature such as long distance walking, swimming, jogging, and et cetera. LSD was used since it was a continuous training that could increase cardiovascular and also planning systematic of losing the subjects’ weight as the main purpose.
The purpose of endurance training such as LSD was to encourage physiological changes to take anaerobic alactic energy system were more importance than to power and speed athletes if comparatively to the speed runner who has to keep working over extended periods of time. This training increased the VO2 max therefore increased the cardiac stroke volume, improved blood flow distribution via improved capillarization of muscle and increments in the mitochondria oxidative capacity. Because of such physiological changes, it had been thought that it was desirable to improve cardiovascular well being by advocating aerobic exercise (Koplan et. al., 1989). With the result showed from previous study by Tan, 2011 article as well as result of plyometric on the cardiorespiratory of an athlete, therefore with the LSD, and steps exercise to be used of heart rate simplifies the process and makes it more practical to apply in terms of weight lose of adults without sophisticated equipment and techniques.

**Problem Statement**

As far as adults of sedentary lifestyle and at the same time, the arising of the problem of obese rates among adults were concerned, the effect of physical activity was seriously being concerned to be considered as an effort in reducing a person weight records and at the end of it would be reducing the overall nation medical expenditures which prepared by the government as well as an individual medical treatment is concerned.

World Health Organization (2003) reported that globally, without physical activity was estimated to cause 1.9 million deaths with about 10-16% of cases each from breast cancer, colon and rectal cancers as well as diabetes mellitus, and about 22% was ischemic heart disease. The risk of getting cardiovascular disease was also reported to increase to 1.5 times in individuals who did not follow the premium physical activity recommendations.

The report further highlighted that more than 60% of adults worldwide did not engage in sufficient levels of physical activity in maintaining sound fitness and physical inactivity was more prevalent among women, older adults, individuals from low socio-economic groups and the disabled.

Hence, previous studied showed the LSD could gain weight lose by very small figure of kilogram and platy after the subjects continuous two years time (Tan, 2011). As the result, it was timely to venture into the effectiveness of physical activity through nor only LSD but added on steps in terms of venture into losing the older adults’ weight as far as physical weight loses was concerned.

**Definition of Terms**

*Cardiorespiratory Endurance* - The body’s ability to deliver oxygen effectively to the working muscles so that an individual can perform physical activity. Efficient functioning of the cardiovascular system (i.e. heart and blood vessels) and the respiratory system (i.e. lungs) is essential for the distribution of oxygen and nutrients and removal of wastes from the body.

*Physical Activity/ Aerobic Exercise* - Exercises that enhance the efficiency of the aerobic energy-producing systems and can improve cardiorespiratory. Aerobic means "with oxygen." Jogging, aerobics classes, sustained methods of training are geared to make our body use up more oxygen. Research clearly shows that in order to maintain a reasonable aerobic capacity, athletes should train at about 60-80% of their maximum heart rate for about 20-30 minutes three times weekly. Operationally, it was taking up 2 years continuous cycles (2009 to 2011).
**Long-Slow Distance (LSD) Run** - A form of continuous training in which the athlete performs at a relatively low intensity (60% to 80% of max HR), with the main objective of distance rather than speed.

**Subjects** – 8 male adults aged between 43 to 50 years old. 5 were academicians, 2 university guards and 1 non-academician.

**Weight Lose** - Weighting scale was used to measure subjects’ end results after a period of time of combination physical activities and in considered their overall weight for the 2 continuous cycles (2 years). Operationally, it was the weight measured from all subjects and it showed improve weight before and after the combination physical activities programme.

**Layman** – A person who is not an athlete or a person mainly involves in daily works or duties. Operationally, is defined as the 8 older male adults in this study.

**Plyometric activity/ Steps (Stair cases)** – There are 450 UiTM stadium’s stair cases with trigonometry roundup of 2 KM.

### LITERATURE REVIEW

Fitness is the state, which characterizes the degree to which the person is able to function. Fitness is an individual matter. It implies the ability of each person to live most effectively with his or her potential. Ability to function depends upon the physical, mental, emotional, social and spiritual components of fitness, all of which is related to each other and is mutually interdependent (American College of Sports Medicine, 1990).

Physical fitness in body composition component is a complex quality and is influenced by many variables. Consequently, there are many definitions of physical fitness. One meaningful definition of physical fitness has been offered by Clarke (1990), who defined physical fitness as “the ability to carry out daily tasks with vigor and alertness, without undue fatigue, and with ample energy to enjoy leisure time pursuits and to meet unforeseen emergencies” (ACSM, 1990).

The duration and frequency of exercise also need to be progressively increased as the individual becomes more tolerant of exercise stress. For basic cardiovascular endurance physical activities, the duration of exercise should be 15 to 60 minutes and should be performed three (3) to five (5) days per week. Running, bicycling, swimming and also cross-country that are several activities, which is the best element of cardiovascular conditioners (Pollock et al., 1994).

General fitness can be achieved by group activities such as handball, volleyball, tennis, cricket and others but most professional clubs begin with exercises to increase flexibility and then concentrate on building up endurance. This can be achieved by long-distance runs (10-15 Km/6-9 miles). It may be better to begin with 4-6 KM (2 ½ -3 ¾ miles) runs and build up to a greater distance if the players are unfit.

Peter (1991) said that, the bulk of research on cardiovascular responses to resistive exercise uses an isometric contraction. These studies have shown that blood pressure and heart rate responses increase proportionately with the absolute force of contraction. These results can be erroneously applied to dynamic exercise. As a result, most clinicians believe that slower velocities produce greater torque outputs than faster velocities and they will also produce greater cardiovascular responses. Utilizing this premise, many clinicians may be using faster velocities, believing they are less stressful to the cardiovascular system.
The American College of Sport Medicine (1978) stated that the most effective method of calculating the training heart rate zones is to use the Karvonen equation. This takes account of the RHR and therefore the Working Heart Rate (Henceforth, WHR). The WHR is the difference between MHR and Resting Heart Rate (Henceforth, RHR).

Referred to this study of the LSD training, the cardiovascular system is undergoing training. The body’s ability to transport oxygen and carbon dioxide away from the working muscles can be developed and improved. As the football players become fitter and stronger from training in this area it was possible to run some of their long weekend runs at up to 75%, so getting the benefits of some fat burning and improved aerobic capacity. 75% running burns fat and improve aerobic capacity also ideal for developing local muscle strength. The Energy Efficient or Recovery Zone is 60% to 70%.

An adult is capable of doing the energy efficient or recovery zone of 60% to 70% if he or she adapted to the specific of the work performed. Endurance depends on many factors such as speed, muscle force, and technical abilities of performing movement efficiently. The ability to use physiological potentials economically and physiological status when performing work (Baechle, T. T. 1994).

Indeed, recent studies have shown that physical fitness appears to be graded long-term predictor of mortality from cardiovascular disease and other causes in healthy middle-aged males (Sandvik, 1993). This evidence provides support for advocating physical activity in the population. Such advocacy has been based on the assumption that increasing the aerobic activities in the general population will lead to improve aerobic fitness and presumably cardiovascular health (Susan & Bonen, 1995). In other viewpoint, The Canada Fitness Survey contains much of the information necessary to determine whether different levels of physical activity in the population can have a positive impact on aerobic power (VO\textsubscript{2} Max).

Higher mileage, steady exercise or physical activity stimulates primarily the slow twitch (Henceforth, ST) muscle fibers because they are more responsive to the lower intensity than the fast twitch (Henceforth, FT) fibers. The adaptations to the muscle cells and the cardiovascular system that occur with endurance physical activity allow each ST fiber to work at lower intensities with less fatigability. Recent work by Coyle from the University of Texas has also shown these ST fibers to be more efficient in converting chemical energy within the muscle into the mechanical work of pedaling in trained athletes. Thus, less muscle fiber is needed to maintain a given pace, or those that are activated do not need to work as hard as before (Edmund, 2002).

Enduring activity would improve the functions of the heart and lungs, including cardiac hypertrophy, decreased resting heart rate, increased stroke volume, and increased skeletal muscle capillary density and hypertrophy. Biochemical improvements allow the body to function more efficiently with an increased oxidation of glycogen and fat, and increased enzyme action for metabolism. Endurance also decreases a person’s risk for heart disease, stroke, diabetes and mortality.

In order to improve cardiorespiratory endurance, either continuous or discontinuous method may be used. One of the most commonly used continuous methods is jogging or running long-slow distance (LSD training). Fartlek training, interval training and circuit weight training are all forms of intermittent or discontinuous training. Research indicates that continuous training and interval training are equally effective in improving cardiorespiratory fitness (Astrand & Rodahl, 1990).

Paul R. Ribid (1979) stated that the factors of intensity, duration and frequency should be considered in designing a starter programme. Although standards are not presently available, it would seem prudent to use intensity in the 40 to 60 percent range, duration of 20 to 30 minutes per session and a frequency of three to four days per week. The length of the starter is variable and depends upon the ability of the individual to adapt. Cooper (1975) has recommended a ten-week starter programme for sedentary adults, but those can be shortened for younger and more active individuals. The most
important objective is for the individual to adapt to the training without musculoskeletal problems.

Long-slow distance run, or “LSD” as it is commonly known, is a training method in which long slow aerobic run is used to improve cardiovascular fitness. Run of 2 to 5 times racing distance at a pace of 7 to 8 minutes per mile are the key elements for improving both performance and physical fitness by increasing the runner’s ability to transport and use oxygen (Mathew & Fox, 1992). A training technique consisting of exercise of necessarily low intensity and cyclic nature such as long distance walking, swimming, jogging and others and in this study was slow jog with distance covered throughout 30 to 40 minutes daily without fail unless disadvantages of weather. Roberts and Morgan (1971) observed that running, cycling, and swimming programmes produced significant improvements fitness, with running being the superior mode.

According to an article, ‘How to Improve’, the way how to ‘teach’ out bodies to burn a higher percentage of fat in preference to glycogen is to train at low intensities for long periods – this is what the chosen subjects do on a typical long-slow distance (LSD) run, by using fat in preference to glycogen, our aerobic system, becomes very efficient and it was able to maintain the runners’ speed over progressively longer distances without ‘hitting the wall, as far as not using glycogen faster than it could be replaced.

METHODOLOGY AND DESIGN

Introduction
This study involved quantitative research using case study method to investigate the effectiveness of the physical activity (LSD) and Steps in weight loses for adults. Descriptive in terms of frequencies, percentage and mean of the result will be presented in table or graph forms.

Subjects
Since the target group is the adults whose age is in between 43 to 50 years old and are volunteers based as far as purposive sampling technique was adopted in the present study. Data were collected from note book provided to record and notes taken as well as every weighting tendency from the subjects’ weight from time to time and their food intake were recorded and referred to in order to estimate the energy input and expenditure of energy in each session of the physical activity that took place.

The samples for this study consisted of six academic staffs, one university guards and one non-academic staffs of local university. The present study utilized one of the non-probabilities sampling method i.e. convenience sampling technique, whereby selection is based on voluntarily basis. A total of 8 male adults involved in this study and for further data analysis.

Data Collection Procedures
There were two continuous years or it could be divided into two cycles (2009 – 2010 and 2010-2011) and body weight of each subject was taken before the practices of the combination physical activities which was slow jog in a group of eight for 30 to 50 minutes daily and stair cases climbing for distance of 2 KM without fail unless heavy rain.

Subjects were allowed to talk and chit chatting as well as singing among everyone with the most relax mode around a stadium of 400 meters track for the target of energy efficient or recovery zone of 60% to 70% as well as during steps. Heart rate of each and every single subject was recorded before and after the duration of training.
Daily food intake of the eight subjects were recorded and referred to ‘Nutrition for Health and Health Care’ (3rd Edition) by Whithey, E et. al., (2007) and the energy expenditures were referred to ‘Sport Physiology for Coaches’ by Sharkey, B.J, Gaskill, S.E. (2006) in order to estimate the balance energy expenditures of these combination physical activities and the food intake was taken even though this is not an experiment design study and the reality was without the control of the parameters of food intake of each subject concerned (Table 1: Kcal estimated food intake and energy expenditure, p.10.).

Moreover, the subjects’ weight was eventually at the mean of 84 Kilograms for all the subjects and the lightest was at 78 Kilograms and the heaviest subject hit 92 Kilograms (Table 4, p. 13).

However, the subjects feelings toward their intervention was recorded qualitatively and referred to table 2, p. 11.

**ANALYSIS AND INTERPRETATION DATA**

**Characteristic of the Subjects**
In the first cycle (year 2009 to 2010), all eight subjects were involved in the work out of the LSD and steps consistently led by the researcher, who was one of the subjects and also played the role of a motivator as well and the daily schedule started as early as 8.00 clock in the morning and warm up session was led among the eight subjects in a rotation manner to make it more fun and challenging. The whole section was over after the warming down session at around 9.10 in the morning. The actual physical activity of the combination physical activities took up a total time of 30 to 50 minutes.

During the second cycle of this practice, that is the following years (2010 to 2011), The 8 subjects or 100 percent of the total subjects were enjoying themselves and willing to carry on with the combination physical activity.

**Parameters of the Study**
As far as food intake and energy expenditure were concerned, an average of food intake was recorded individually but overall accumulation as mean score was presented in the table 1 page 10 as well as the overall energy expenditure was recorded in the table.
**Table 1:** Food intake in Kcal and the Physical Activity (LSD) Daily for N= 8

<table>
<thead>
<tr>
<th>Time</th>
<th>Food Intake</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breakfast</td>
<td>One plate of noodle (347 Kcal) and one cup of Nescafe (317Kcal)</td>
</tr>
<tr>
<td>Lunch</td>
<td>One bowl of noodles (347 Kcal) and one glass of Nescafe ice (300 Kcal)</td>
</tr>
<tr>
<td>Dinner</td>
<td>One plate of rice with mix vegetables (450 Kcal)</td>
</tr>
</tbody>
</table>

**Physical Activity by the 8 subjects**

LSD - jog for 30 minutes with the THR of 65% from the 340bpm. Distance of run covered around 3.3 KM to 4 KM plus in the roughly 2 KM distance of Stair case stepping.

**Total Intake = 2128 Kcal**
**Total Expenditure = 2580 Kcal.**

**Interpretation-** Expenditure energy in Kcal was slightly higher than Kcal intake daily throughout 2 cycles of the combination physical activities for the total of 8 subjects.

**Table 2:** Overall feeling expressed by the N = 8

1. For the first cycle, subjects felt even more tiredness physically but could sleep better.
2. Second cycle of combination physical activity with the similar load, subjects felt better and still a bit body pain or body aches.
3. During daily activity- first 3 to 5 minutes could feel tiredness or muscle soreness and came across the feeling of stopping those physical activities but after more than 6 minutes, feeling much better and willing to carry on the LSD and stair case stepping for a period of 30 to 50 minutes.
4. Process of adaptation to the 30 to 50 minutes and around a total of 3.2 to 6 KM distance run with the stair cases made them feel common and normal feeling this encouraged them to shift their sedentary lifestyle for long run of time and plyometric bouncing.
5. After the daily combination physical activities, they took a bath and felt fresh for the rest of the day.
6. Sometime they demonstrated better appetite after the daily training session but they seldom entertained this type of feeling but went on with their daily working hours.
7. Lunch and dinner time, they consumed according to whatever they wanted to eat or take, anyhow they did not have the habit if taking supper except once in the blue moon.
FINDINGS

The effectiveness of physical activity (LSD) and STEPS in weight lose among the eight adults had shown decreased of body weight individually after they completed their 2 cycles training programme voluntarily. Hence, the result of individual weight lose was indicated in table.

**Table 3 (a):** Results of the overall two Cycles’ Combination Physical Activities by all Subjects (N= 8)

<table>
<thead>
<tr>
<th>Mode of accumulated (Physical activity &amp; intake)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>25%</td>
</tr>
<tr>
<td>Moderate</td>
<td>25%</td>
</tr>
<tr>
<td>Not Good</td>
<td>24%</td>
</tr>
<tr>
<td>Bad</td>
<td>26%</td>
</tr>
</tbody>
</table>

**Table 3 (b):** 2nd Cycle (one year time - 2010 - 2011)

<table>
<thead>
<tr>
<th>Mode of accumulated (Physical activity &amp; intake)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>30%</td>
</tr>
<tr>
<td>Moderate</td>
<td>40%</td>
</tr>
<tr>
<td>Not Good</td>
<td>15%</td>
</tr>
<tr>
<td>Bad</td>
<td>15%</td>
</tr>
</tbody>
</table>

The mode of accumulation of combination physical activities represented the level of food intake Kcal and the Kcal energy burn by the LSD mode and stair case stepping and this referred as Mode in Good status because the output was slightly higher than food intake and the bad status meant the input Kcal was much higher than the physical activity and they were collected by every subject in their personal log book which provided by the researcher in this study whereas the results of the weight taken was recorded as average or mean score for the 8 subjects as shown in Table 3 (a & b) , p. 11 and p.12. As far as the end results of this study on the effectiveness of combination physical activity in weigh lose of 8 adults and in this case was Long Slow Distance Run and stair case stepping used and monitored by the study’s researcher.
Table 4: Result of 8 Adults’ Weight Lose (N = 8)

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Weight (Kg)</th>
<th>Cycle 1 (Kg)</th>
<th>Cycle 2 (Kg)</th>
<th>Individual (Kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Tan S T</td>
<td>78</td>
<td>77</td>
<td>75</td>
<td>75</td>
</tr>
<tr>
<td>3. Dato Sri On</td>
<td>78</td>
<td>77</td>
<td>76</td>
<td>75</td>
</tr>
<tr>
<td>4. Mat</td>
<td>81</td>
<td>79</td>
<td>78</td>
<td>78</td>
</tr>
<tr>
<td>5. Chai</td>
<td>84</td>
<td>82</td>
<td>80</td>
<td>79</td>
</tr>
<tr>
<td>6. Wok</td>
<td>86</td>
<td>85</td>
<td>83</td>
<td>81</td>
</tr>
<tr>
<td>7. TT</td>
<td>91</td>
<td>89</td>
<td>86</td>
<td>86</td>
</tr>
<tr>
<td>8. CSR</td>
<td>92</td>
<td>88</td>
<td>87</td>
<td>87</td>
</tr>
</tbody>
</table>

CONCLUSION, RECOMMENDATION AND LIMITATIONS

Conclusion
As far as body weight was concerned; weight lose when people did physical activities, the most demanding of all source of exercises and which involved physiological demands as well as the effects. This research had focused on the energy used while the 8 sedentary lifestyle subjects aged between 43 to 50 years in this study were volunteers in the training that could affect the cardiovascular fitness level. Based on this study, it could be concluded that the objectives had been achieved. The objectives of this study were to make assessment in order to measure the effects of combination physical activity (LSD & Steps) programme on cardiovascular fitness level which involved weight lose as the end results. Pre-record had been done and followed by the combination physical activities’ training for a duration of 2 cycles or two consecutive years. Then, the post-record was noted among the 8 subjects.

Referred to the analysis of the results which were presented in table forms, there was a significant weight lose recorded among all subjects involved. As conclusion or interpretation from the data gained, it clearly showed that the first cycle of combination physical activity demonstrated differences on weigh lose as well as their feeling towards physical activity.

When they were in second cycle, all subjects had decreases constant of their body weight as compared to the first cycle. At the same time there were other parameters that needed to be considered as well as control especially the subjects’ food intake.

Overall finding of this study reported that there was an effect of combination of LSD and steps activity as physical activities on adults weight lose and it was not significance because of their mode of training or LSD (table 3 a, & b) cause the end result with performed the combination in good mode stated 50 percent where else, comparative the moderate and not good mode made up 20 percent overall recorded and thus, the performed bad mode was 30 percent and this was the main reason the weight lose result was not match up to the general expectation of sports science, body of knowledge as long as table 3 and table 4 were referred.
Moreover, this study result showed significance of physiological graphed noted as far as the normal curve graph performed because of the process of body physiology adaptation of the all subjects especially during the second cycle because of the variety of physical activities involve in the progressive principles was applied in this study, this could concluded that variety in training programme should cause effectively occurred.

In addition, future innovations in training techniques and the subsequent improvements in weight lose would be accomplished as a result of this closer working relationship between athletes, coaches and those sports scientist who possess a comprehensive and practically based knowledge of the physiology of specialized athletes’ events (Hawley, 1995) and this contributed to the physical activity, the body of knowledge in terms of re-justified the effectiveness of variety activities as one of the main principle of training on the adults aged 43 to 50 especially in their weight lose was concerned.

References


Tan Chee Hian. (2011). The effectiveness of physical activity (long Slow Distance Run) in weight lose for adults - case study. ICHPER. SD. 2011
When weight loss is achieved through any weight loss intervention program, does exercise contribute to the maintenance of that weight loss? Does Exercise in and of Itself Improve Weight Loss Efforts? Many outcomes data have been reported from research studies that have examined exercise alone, exercise plus dietary restriction, or dietary restriction alone to determine strategies for weight loss. The challenge over time is to accurately monitor both sides of the equation as individuals interact in their daily lives. Is There a Difference Between Aerobic Training and Resistance Training or the Intensity of Activity in Achieving Weight Loss or Weight Maintenance? Willis et al.