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스포츠 매니지먼트 석사 학위논문

An Analysis of Physical Activities for
Students toward Academic Performance
in Hanoi University of Science and
Technology

하노이 과학 기술 대학 학생들의 학업성적에 영향을
주는 신체 활동 분석

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Abstract

An Analysis of Physical Activities for Students towards Academic Performance in Hanoi University of Science and Technology

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Physical activity and/or sport in school is a basis of sport and sport can affect to people daily life. Physical activity and its effect to students and to normal people has been studied long time ago and have many conclusions.

In general, physical activity can bring many good effects for student. However, do students know about its effect? Do they know physical activity can help them to reduce stress and to be motivated? Do they think their academic performance has improved after doing physical activity?

This study will interview and try to discover and let students see the benefits of physical activity towards their academic performance. In detail, this study is to examine if students can have less stress and more motivation after doing physical activity and it can help student to have better academic performance

To reach the goal, this paper has interviewed 30 students and 5 sport specialists in order to see:

First, physical activity in university, specific in Hanoi University of Science and Technology (Genetic Computer School)?

Second, student's motivation. Does physical activity help student to be motivated?

Third, student's stress. Does physical activity help student to release stress?

The findings has proven the hypothesis of this study was right, in which it showed that most of students know the important of physical activity. Even the physical activity is not a mandatory subject for Genetic program but most of students always try to do physical activity because it can help them to release the stress and increase their motivation in school and through its effect, physical activity can help them to improve their academic performance.

Keywords : Physical activity, stress, motivation, academic performance

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Table of Contents

Acknowledgements	i
Abstract.....	iii
Table of Contents	vi
Table of Figures.....	viii
Table of Tables	ix
Statement of the evaluation:	x
Chapter 1. Introduction.....	1
1.1. Background.....	1
1.2. Gap from Previous Research	3
1.3. Aim of This Study	5
1.4. Limitation	6
1.5. Definition of Terms	6
Chapter 2. Literature Review.....	9
2.1. Physical Activity and Student’s Academic Performance	9
2.2. Positive Learning Motivation	16
2.3. Physical Activity Helps to Reduce Stress in Learning	18
2.4. Current State of Education and Physical Activity in School in Vietnam	25
2.5. Hypothesis	32
Chapter 3. Method	33
3.1. Operational Definition.....	33
3.2. Population and Samples	34
3.3. Unit of Analysis and Sampling Period	35
3.4. Type of Research.....	35
3.5. Data Collection Technique	36

3.6. Data Analysis Technique.....	38
Chapter 4. Result	39
4.1. Participants	39
4.2. Current State of Physical Activity in the Genetic Ccourse - Hanoi University of Science and Technology:.....	40
4.3. The Study on Physical Activity toward Academic Performance in Hanoi University of Science and Technology.....	41
Chapter 5. Discussion	50
5.1. Summary of Finding.....	50
5.2. Discussion.....	51
5.3. Implication.....	54
5.4. Limitation and Future Research	56
References	59
Appendix A	64
Appendix B.....	66
Appendix C.....	67
국문 초록	68

Table of Figures

Figure 1. Active Healthy Kids Canada (2007-2013).....	12
Figure 2. Research of the National Institute of Medicine (2013).....	13
Figure 3. Model of Stress process by Lazarus (1966).....	19

Table of Tables

Table 1. Physical activity and exercise comparison.....	9
Table 2. Summary of Findings	50

Statement of the evaluation:

This study examined the effect of physical activity towards student's academic performance in Hanoi University of Science and Technology (Genetic computer school).

More specifically, this study will focus to the following questions:

RQ 1. Do physical activity influence to the positive learning motivation?

RQ 2. Do physical activity help student to reduce their stress in learning?

Then, these effects can help student to have better academic performance in their class.

Chapter 1. Introduction

1.1. Background

Mark; Inman and Willmas. (2000) has pointed out that not many students know about the benefit of physical activities in their university, especially for their academic performance such as academic achievement and grades; academic behavior (time on assignment...); elements that effect to academic achievement like concentration and attentiveness in class.

Exercise and physical training not only helps to develop physical fitness, it also develops the capacity of brain, improve efficiency of works. Regular exercise and physical training can enhance working capacity of the brain and improve nerve processes¹. Thereby strengthening mental power and retention of the body and through sport and physical exercise can also regulate an effective working and learning, thereby increasing productivity and learning capacities.

Practices has proven doing exercise has the effect of promoting the development on intellectual resources, awareness, human talent; also has the effect of raising academic performance.

¹ brainhq.com

If working for long time, all the brain cells will produce inhibitory effects to protect; at that, moment of brain performance will drop. Outward manifestation of the capacity of attention is poor thinking, severe dizziness or headache..., which needed to have rest. There are two kind of rest, that are negative rest (sleeping) and positive rest (doing exercises). When doing exercise, the motor neurons would be highly excited; on the other hand, it increases more inhibition of cell memory and thinking and helps to reduce the fatigue.

In short, doing exercise scientifically and sport not only has the effect of physical fitness and stamina for the body but also has a great effect on the advancing and enhancing brain activity.

Donna Ricketts (2003) identified:

Physical education is a course in school that focuses on enhancing physical fitness, which could having the ability to perform and enjoy day-to-day physical activities with ease. Students also gain knowledge of movement and an ability to develop and refine skills necessary to participate in a wide range of activities, such as soccer, basketball, or swimming. Regular physical education classes prepare students to be physically and mentally active, fit, and healthy into academic jouney. (“What is physical activity?,” para. 3)

Moreover, physical education helps students to form skills of behavior, communication, the proper ethical behavior at practice.

Meanwhile, it also contributes to positive lifestyle education, fostering healthy and moral personality qualities for students.

However currently, physical education in educational levels in general and universities in particular are still inadequate. The physical education for students have not received proper attention from the family, school and society. This affects to physical development and health for students, causing imbalance and harmonious development of intellectual, physical and holistic development of personality of students.

1.2. Gap from Previous Research

Aware of the important of physical ability and stature development, many countries in Europe and some Asian country, especially Japan has focused on this issue many decades ago. In Southeast Asia region, these issues have been promoted in recent 20 years.

In Vietnam, although the program for physical ability and stature development has been slower than other countries in the region. Vietnam government has always paid special attention to this issue. Recently, the government have multiple solutions as well as important policy and specific plans to improve people's health. However, the average height and weight of Vietnamese people are much lower than Japanese and European countries

(163.7 cm-male and 153.0 cm -female compare with 172.0 cm - Japanese male and 157.0 - Japanese female). That was basic point of Master Plan for physical ability and stature development, which has been approved by Prime Minister, dated on 28 April 2011. (Master Plan for Physical Ability, para. 5)

In order to sever for the Master plan of physical ability and stature development, Vietnam sports science institute has carried-out several research regarding to the physical ability, physical activity... in societies and universities as well. These survey focus to examine how physical activity effect to the health and physical ability of Vietnamese people in general and students in particular. However, these surveys have not mentioned to the important point of physical activity in school or university, which is how it helps students to be motivated and reduce stress and through it, improve their academic performance.

Thus, to fill the gap this study will try to discover the influence of physical activity towards student's academic performance in Hanoi University of Science and Technology (Genetic computer school).

This university is located in Hanoi, capital of Vietnam and it has function of information & technology education. Genetic computer school is a program of international training cooperation between Vietnam and Singapore.

The data that will be analysed are from interview of 1st year students who has the same background and same academic environment.

1.3. Aim of This Study

Base on the above background, especially the current situation of physical education in Hanoi University of Science and Technology (Genetic computer school). This study will try to discover the effect of physical activity on student's motivation and stress in order to see how physical activity impact to student academic performance.

By searching and analyzing knowledge, documents of the factors that influence health and participation in physical activity, through interview student the study try to clarify the situation of physical activities in the university and this reality can make the precondition for the research "An analysis of physical activity for students towards academic performance in Hanoi University of Science and Technology"

More especially, this study will try to answer to the following questions:

1. Does physical activity influence to student's motivation?
2. Does physical activity help student to reduce their stress in learning?

To archive the above aim (contents), this study will use some of the following research method:

- Interview 1st year student and sport specialist
- Case study analysis

Physical activities and/or sport in school is a basis of sport and sport can affect to people daily life. Therefore, the study will focus on student of information & technology education, which have similar of culture-education environment. Physical activities that impact to the student's academic is a broad issue. This study tries to evaluate a small part of these issues, which related to physical education in university in Vietnam.

1.4. Limitation

Physical activity in university in general and its effect to students in particularly are broad issues. Due to the limitation of data collection (this study carried out abroad), the study only analyse a small portion of physical activity benefits, which is related with physical activity and student academic performance in Hanoi University of Science and Technology (Genetic computer school).

1.5. Definition of Terms

Physical activity: World Health Organization (WHO) defined physical activity as any bodily movement produced by skeletal muscles that

requires energy expenditure. Physical inactivity has been identified as the fourth leading risk factor for global mortality causing an estimated 3.2 million deaths globally.

Regular moderate intensity physical activity – such as walking, cycling, or participating in sports – has significant benefits for health. For instance, it can reduce the risk of cardiovascular diseases, diabetes, colon and breast cancer, and depression. Moreover, adequate levels of physical activity will decrease the risk of a hip or vertebral fracture and help control weight.

Sport: A physical activity or skill for purposes of recreation, competition, training to improve health and physical fitness ... Sport are accompanied by physical activity, competition game, and scoring rules. (dictionary.cambridge.org).

Activities: Are specific lively actions or movement or project pursuit (e.g. school activities) (Gregorio, 1985)

Equipment: Tangible property (other than land or buildings) that is used in the operations of a business. Examples of equipment include devices, machines, tools, and vehicles²

² <http://www.businessdictionary.com/definition/equipment.html>

Evaluation: The act or process of assessing, estimating or adjusting the values of a thing, person or program (Good, 1983)

Learning: A reflective process whereby the learner either develops new insights and understanding of changes or restructures his/her mental process (Ornstein, 1990).

Academic performance: The percent of enrolled students completing educational levels.

Impact: A powerful effect that something, especially something new, has on a situation or person (dictionary.cambridge.org).

Motivation: Underlie behavior that is characterized by willingness and volition. Intrinsic motivation is animated by personal enjoyment, interest, or pleasure, whereas extrinsic motivation is governed by reinforcement contingencies. Motivation involves a constellation of closely related beliefs, perceptions, values, interests, and actions. Motivation within individuals tends to vary across subject areas, and this domain specificity increases with age. (Emily R. Lai, 2011)

Stress: “The non-specific response of the body to any demand for change” (Hans Selye, 1936).

Chapter 2. Literature Review

A 2002 definition by Battle & Lewis wrote about student's academic performance, "In this era of globalization & technological revolution, education is considered as first step for every human activity. It plays vital role in the development of human capital and is linked with an individual's well-being & opportunities for better living" (as cited in M.S. Farooq (2011)).

2.1. Physical Activity and Student's Academic Performance

There was several definition of physical activity, such as:

Caspersen, Powell, & Christenson (1985) explained physical activity as: Any bodily movement produced by skeletal muscles that result in energy expenditure. Kilocalories are unit to measure the energy consumption. Exercise is one of the component of physical activity, which planned, structured, and repetitive and has as a final or an intermediate objective the improvement or maintenance of physical fitness. Physical fitness is a set of attributes that are either health- or skill-related. Occupation, sports, conditioning, household, or other activities are categorized in daily life physical activities.

They also compare factor between of physical activity and exercise:

Table 1. Physical activity and exercise comparison

Physical activity	Exercise
1. Bodily movement via skeletal muscle	1. Bodily movement via skeletal muscle

2. Results in energy expenditure	2. Results in energy expenditure
3. Energy expenditure (kilocalories) varies continuously from low to high	3. Energy expenditure (kilocalories) varies continuously from low to high
4. Positively correlated with physical fitness	4. Very positively correlated with physical fitness
	5. Planned, structured and repetitive bodily movement
	6. An objective is to improve or maintain physical fitness component(s)

Source: Caspersen et al., 1985

The quality of students' achievement always at highest priority level for educators. It means for making a difference locally, regionally, nationally and globally. Educators, trainers, and researchers have long been interested in exploring variables contributing effectively for quality of performance of learners (Farooq et al., 2011, p.22).

Crosnoe, Johnson & Elder (2004) stated, "These variables are inside and outside school that affect students' quality of academic performance. These elements may be known as student factors, family factors, school factors and peer factors" (Farooq et al., 2011, p.2).

Tsinidou, Gerogiannis, & Fitsilis, 2010 emphasized that "educational services are often not tangible and are difficult to measure because they result in the form of transformation of knowledge, life skills and behaviour modifications of learners" (M.S.Farooq et al., 2011, p.2).

Michael (1998) added some other points: “There is no commonly agreed upon definition of quality that applied to education field. Definition of quality of education varies from culture to culture. The environment and the personal characteristics of learners play an important role in their academic success”.

Goddard (2003) stated, “The school personnel, members of the families and communities provide help and support to students for the quality of their academic performance. This social assistance has a crucial role for the accomplishment of performance goals of students at school” (M.S.Farooq et al, 2011, p.3).

Furstenberg & Hughes (1995) emphasized, “Along with the social structure, parents’ role of involvement in their child’s education enhances the rate of success of their child’s academic” (M.S.Farooq et al, 2011, p.3).

Active Healthy Kids Canada (2007-2013) also found some benefit of physical activity to the academic performance (Figure 1.) and the Active Healthy Kids Canada Report Card on Physical Activity for Children and Youth is the essence project of the organization.



Figure 1. Active Healthy Kids Canada (2007-2013)

The National Institutes of Medicine³ (2013) also agreed,

“understanding the relationship between physical activity, body weight, and academic achievement can help provide schools and organizations with evidence to support academic and physical activity programming that promotes both academic and physical fitness”. Their research has explored the relationship between physical activity, body weight, and academic performance.

³ <http://iom.nationalacademies.org/>

They also identified, student often had better result in reading, spelling & math and were more likely to read above their level after 20 minutes of physical activity (See Figure 2.).

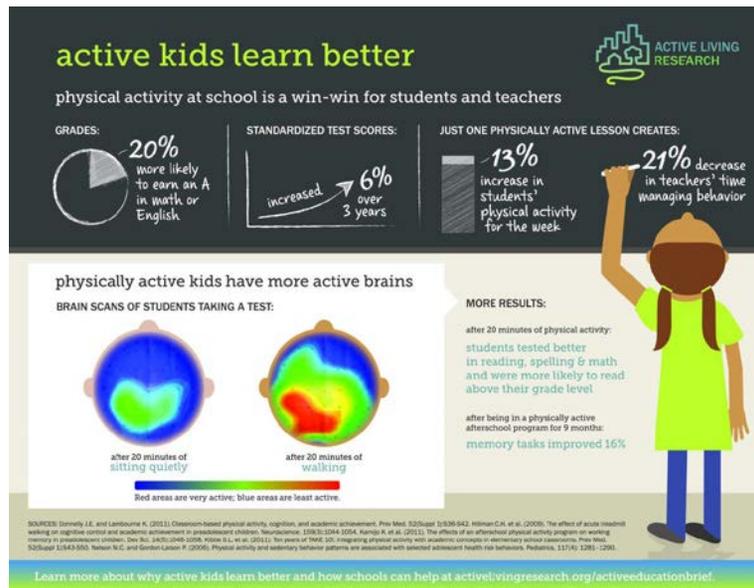


Figure 2. Research of the National Institute of Medicine (2013)

Besides the physical education program in school, students nowadays have many opportunities to join many sport or extracurricular physical activities in or out of their schools.

Extracurricular physical activities or after-school sports activities provide opportunities for students to play football, tennis, baseball, volleyball, basketball, and various other sports at beginner, intermediate and

competitive levels. Activities offered at different skill levels to encourage participation regardless of skill.

Wilson (2009) pointed out:

The benefit of extracurricular activities on students who participate in extracurricular activities generally; benefit from the many opportunities afforded them. Benefits of participating in extracurricular activities included having better grades, having higher standardized test scores and higher educational attainment, attending school more regularly, and having higher a higher selfconcept. Participants in out-of-school activities often learned skills such as teamwork and leadership while decreasing the likelihood of alcohol use and illicit drug use and related problem behaviors. Those who participate in out-of-school activities often have higher grade point averages, a decrease in absenteeism, and an increased connectedness to the school (paragraph 11).

Eccles (2003) also mentioned, “Different levels of activity involvement and participation may positively influence future success for those who participate. Research also indicated that both the type of extracurricular programs and level of participation might affect the individuals' development (Efrem Kentiba, 2013, p20).

According to Reeves (2008), “Students who not participated extracurricular activities during the academic year had remarkably lower grades than those who participated in three or four extracurricular activities” (Nikki Wilson, 2009, p14).

Darling, Caldwell, and Smith (2005) also mentioned:
Participation in sports related to the following positive academic linked outcomes including higher grade point average, fewer disciplinary referrals, lower absentee rates, decrease in dropout rates, stronger commitment to the school, liking school better, being in the academic tract in coursework, taking more demanding coursework, more likely to attend college full time and graduate, holding higher aspirations for attending college, applying to more universities and colleges.

However, participation in sport or physical activities in or out-of-school also has potential negative aspect for consideration is the differences in economic status.

Wilson (2009) identified:
The Programs need to have transportation to and from practice sessions, equipment, and pay-to-play athletic fees. Performing arts activities such as band may cost a lot of money to purchase musical instruments or have private lessons. This could be a problem for many of the students and families with limited income for extracurricular activities. Socioeconomic status may limit the possibility of some students being able to compete as some top athletes have private lessons, attend summer sports camps or play in club sports year round. It is hard for the average-income student to compete with the athlete who has had additional training, top-notch equipment, and enjoys the opportunity to play sports year-round. This economic disadvantage can bring disappointment and frustration to the student, or even prohibit some from even trying the sport in the first place. (Paragraph 8)

Another example of how budget might limit the chance to participate out of school activities is for those students who need to work to

support their families or for their expenditures. Allar (2008) determined that, “finances are an issue. When students say: I need to work to help give money to my family. It clearly shows how economic condition can contribute to if students are able to participate or not. Although they may wish to play, students may not be able to as the family economic status limits their opportunities” (Nikki Wilson, 2009, p18).

2.2. Positive Learning Motivation

Maehr and Meyer (1997) defined, “Motivation is a theoretical construct used to explain the initiation, direction, intensity, persistence, and quality of behavior, especially goal-directed behavior” (Jere Brophy, 2004, p3).

Thrash and Elliot (2001) also confirmed, “Motives are usually construed as relatively general needs or desires that energize people to initiate purposeful action sequences. In contrast, goals (and related strategies) tend to be more specific and to be used to explain the direction and quality of action sequences in particular situations” (Jere Brophy, 2004, p4).

How are you motivated?

Walkitscience.org reported an evidence as motivation is hard to find in our everyday lives, especially within ourselves. We have to dig deep and find the motivation we need to make life great every single day! Intrinsic motivation is key in life! To the below are a few factors that influence intrinsic motivation (Paragraph 1.)

Brophy (2004) said, “Students are motivated when they believe they could be succeeding at a given task and when they understand and value the outcome of the task”.

Brophy (2004) also thought learning is fun and exciting: At least when the curriculum is well matched to students’ interests, abilities, and the teacher emphasizes hands-on activities. When you teach the right things the right way, motivation takes care of itself. If students are not enjoying learning, something is wrong with your curriculum and instruction - you have somehow turned an inherently enjoyable activity into drudgery. School is inherently boring and frustrating. We require students to come, then try to teach them stuff that they do not see a need for and do not find meaningful. (p. 1).

Olson (2008) wrote, “Involvement in extracurricular activities is consistently and positively correlated with good school attendance, and good attendance is often correlated with a higher grade point average” (Nikki Wilson, 2009, p15).

Ennis (2003) found that “while the multi-activity physical education programs (multiple sports and physical activities) have been dominant in the United States for decades, today's students are becoming

increasingly aware of the importance of healthy lifestyles, and they tend to be more interested in programs that emphasize health-related fitness”.

In addition, there is a call for shifting the emphasis of physical education programs from learning sport skills to enhancing health-related fitness (Schiesel, 2008).

Beside of physical activity, students also can find their motivation in different way but it may have different effect level.

2.3. Physical Activity Helps to Reduce Stress in Learning

Severe stress or depression is adverse impact on life and your activities. When you start to feel anxious and somewhat stressful, try to start some movement and exercise to trigger mood and reduce stress.

Lazarus (1966) explained, “Stress arises when individuals perceive that they cannot adequately cope with the demands being made on them or with threats to their well-being”.

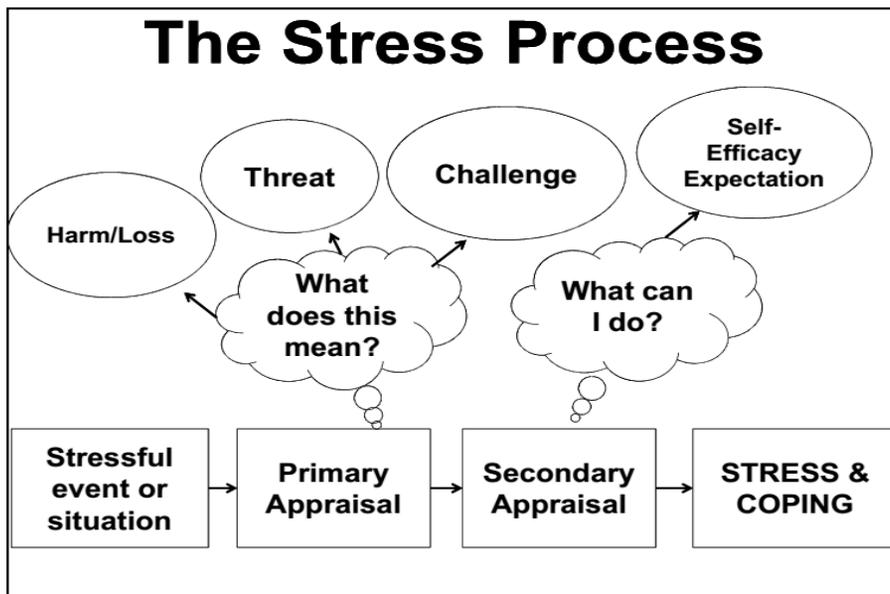


Figure 3. Model of Stress process by Lazarus (1966)

A recent survey published by the Mental Health Foundation⁴ found that “59% of British adults felt their life was more stressful than it was five years ago. 47% of all survey respondents said they felt stressed every day and a further 24% said they felt stressed every few days. The Health and Social Care Information Centre also recently published data, which showed hospital admissions for stress have risen by 7% in just twelve months, and the Health and Safety Executive recently published figures, which indicate a rise in sick days due to work-related stress”.

⁴ <http://www.mentalhealth.org.uk/>

Many study said the exercise had the potential effect of helping you overcome the symptoms of anxiety. People who exercise regularly have a lower anxious index than those who never exercise. This suggests that, fitness is effective treatment when anxiety and stress. According Mayo Clinic, exercise affects the body including the brain. Since then, more integrated brain hormone release endorphins and neurotransmitters including affecting mood. These compounds are enough to alleviate anxiety and stress when you practice a certain sport. Moreover, exercise also increases body temperature, which related to the positive mood. You can combine with meditation and practice thinking in a more positive direction.

According to the Department of Health in London⁵ (2011), “movement is medicine for creating change in a person’s physical, emotional and mental states. Regular physical activity increases cerebral blood flow, changes hormone levels, enhances nutrient intake causing increased energy and concentration levels. Physical activity may offer an alternative approach to reducing or managing stress”.

Mayo Clinic Staff (1998) believed that “virtually any form of exercise, from aerobics to yoga, can act as a stress reliever. If you are not an

⁵ <https://www.gov.uk/government/organisations/department-of-health>

athlete or even if you are out of shape, you can still make a little exercise go a long way toward stress management”.

They also have a research about the benefit of exercise to reduce stress. They stated:

Exercise increases your overall health and your sense of well-being, which puts more pep in your step every day. However, exercise also has some direct stress-busting benefits. It pumps up your endorphins. Physical activity helps bump up the production of your brain's feel-good neurotransmitters, called endorphins. Although this function that often referred to as a runner's high, a rousing game of tennis or a nature hike also can contribute to this same feeling. It is meditation in motion. After a fast-paced game of racquetball or several laps in the pool, you will often find that you have forgotten the day's irritations and concentrated only on your body's movements. As you begin to regularly shed your daily tensions through movement and physical activity, you may find that this focus on a single task, and the resulting energy and optimism, can help you remain calm and clear in everything you do. It improves your mood. Regular exercise can increase self-confidence, it can relax you, and it can lower the symptoms associated with mild depression and anxiety. Exercise can also improve your sleep, which is often disrupted by stress, depression and anxiety. All of these exercise benefits can ease your stress levels and give you a sense of command over your body and your life.

According to the Mental Health Foundation, “cross-sectional studies on adults who are employed have found that highly active individuals tend to have lower stress rates compared to low active individuals. Several mechanisms have been suggested to explain how physical activity may reduce the harmful effects of stress. Physical activity reduces arousal (i.e. enhances mood due to distraction from worries or biochemical changes) or increases positive health behaviours during periods of stress (i.e. decreased smoking and healthier eating habits). It has also been suggested that the higher levels of fitness brought about by physical activity result in a more efficient stressregulation (i.e. reduced secretion of hormones, lowered blood pressure) or enhanced recovery from stress. These effects are referred to as stress-buffering” (para. 2).

Anxiety and Depression Association of America⁶ also mentioned the benefit of physical activities in order to reduce the stress: “the physical benefits of exercise—improving physical condition and fighting disease - have long been established, and physicians always encourage staying physically active. Exercise is also considered vital for maintaining mental fitness, and it can reduce stress. Studies show that it is very effective at reducing fatigue, improving alertness and concentration, and at enhancing overall cognitive function. This can be especially helpful when stress has depleted your energy or ability to concentrate” (Paragraph 2.).

⁶ <http://www.adaa.org/about-adaa>

Mahoney (2015)⁷ posted the connection between exercises and stress:

When stress affects the brain, with its many nerve connections, the rest of the body feels the impact as well. Therefore, it makes sense that if your body feels better, so does your mind. Exercise and other physical activity produce endorphins - chemicals in the brain that act as natural painkillers - and also improve the ability to sleep, which in turn reduces stress. Meditation, acupuncture, massage therapy, even breathing deeply can cause your body to produce endorphins. Moreover, conventional wisdom holds that a workout of low to moderate intensity makes you feel energized and healthy (Paragraph 3.).

Regular doing aerobic exercise has been approved by scientist that it could help to reduce levels of tension, elevate and stabilize mood and also enhance sleep. Five minutes of aerobic exercise can stimulate anti-stress effects.

The American Heart Association (2005) has identified the reasons why physical activity can improve both mental and physical:

Physical activity boosts mental wellness.

Regular physical activity can relieve tension, anxiety, depression and anger. You may not only notice a "feel good sensation" immediately following your physical activity, but most people also note an improvement

⁷ tallahassee.com

in general well-being over time during the weeks and months as physical activity becomes a part of their routine.

Physical activity improves physical wellness.

Reduced Risk Factors: Too much sitting and other sedentary activities can increase your risk of cardiovascular disease. One study showed that adults who watch more than four hours of television a day had a 46% increased risk of death from any cause and an 80% increased risk of death from cardiovascular disease.

Becoming more active can help lower your blood pressure and also boost your levels of good cholesterol.

Physical activity prolongs your optimal health.

Without regular physical activity, the body slowly loses its strength, stamina and ability to function well. People who are physically active and at a healthy weight live about seven years longer than those who are not active and are obese. (Paragraph 1-4)

Many people may know about the well-known sentence about a good health of Buddha (n.d) “To keep the body in good health is a duty...otherwise we shall not be able to keep our mind strong and clear.”

In addition, Plato said, “The part can never be well unless the whole is well.” Participation in regular physical activity can reduce stress

and anxiety. Physical activity can help play a role in preventing mental health problems and improve the quality of life of those experiencing it.

2.4. Current State of Education and Physical Activity in School in Vietnam

There is an existing fact that a significant number of college graduates do not work in the field of their college major. Most students nowadays are confused about their future jobs and even about their own compatibility with the major that they themselves chose to study. This confusion costs these young people a lot of extra time and efforts, not only to find out their field of interest all by themselves, but also to pursue certain careers at later stages of their lives as a result of such postponed realization. The lack of job orientation for students in Vietnam at earlier stages of education is very common and thus has been creating various obstacles and problems that would only emerge after the students have graduated and started to experience the real working environment. It is of great importance that consultation on job orientation be given to students from as early as secondary school stage, equipping them with sufficient information through in-depth advice in order to help direct their interests, which will serve as the

foundation for their career focus in later stages of life (as cited in *Education vital to workforce development*, 2013).

Thanks to increasingly extensive international educational cooperation, students in Vietnam can now apply to study international programs without any travel to a foreign country. The adaptation, adoption as well as incorporation of foreign study programs have created certain changes to the education of Vietnam, infusing it with a new viewpoints and perspectives on various issues including target planning for education. The new methods in education adapted from innovative education models allow students to not only obtain professional knowledge and skills but also enhance their social self-development in the form of transferable skills.

Voluntary activities/ Recreational activities

Besides national volunteer programs such as the well-known annual Green Summer Campaign, nowadays students with some English skills can also participate in various international events and join global networks and students clubs or groups. As the international integration and interaction around the world are expanding comprehensively, more and more volunteering opportunities have also opened up, offering chances for Vietnamese students to meet with young people of their age in an international environment, and join programs that bring about social

benefits. National and international student volunteer programs create a shared playground for young people to work together, exchange cultural values and develop practical transferable skills that will be helpful for them at their workplace in the future.

Along with the development of the society, investment and development efforts for the non-material aspect of life also receive more attention. Recreational activities for young people in general and students in particular in Vietnam have therefore been largely diversified. Not only the genres of entertainment are expanded, but many sports, art and cultural programs in Vietnam today are also organized through international collaboration, and students themselves are the first group of target to experience all new trends and cultural infusion coming to Vietnam as a result of comprehensive global integration.

Part-time job/ Internship

A world of job opportunities for students has been expanding rapidly in recent years. The trend comes from both sides: students and the employers. A large number of students choose to have a part-time job for various reasons, mainly including finance, and experience. As the market economy evolves, competition has become so intense that it forces students to strive at their best trying to gather professional practical experiences

“ahead of time” in order to enhance their own competitiveness. On the other hand, employers also do see potentials and positive reasons to approve of students’ application profiles. As stated by K. Wiburg (2012) in her research on the exposure of entrepreneurs with students, one of the reason for employers to choose students as interns is that they don’t cost as much as other well-trained or experienced employees, and that they are all new and green and excited to learn, which considerably facilitates the company’s training process.

However, the realistic picture of the transferable skills development process during college years among students in Vietnam is still far from perfect. According to a survey on English skills and soft skills of Asia Pacific region’s students, which include Vietnamese undergraduates, company’s reviews from student’s internship periods often point out a fundamental lack of communication, time-management and teamwork skills among students (*Thị trường người Việt ở Mỹ: 'Nhiều bạn trẻ thất bại vì thiếu kỹ năng mềm'*, 2014). A research by Viet Nam Education Institute on this issue also discovered an 83% of newly graduated student who lack basic soft skills that relate directly to the achievement of work efficiency; in detailed, for every 2000 job application, only 40 have both the technical and

soft skills demanded by the employer (*Graduates need more 'soft skills', says expert, 2009*).

Physical activity in school in Vietnam

Physical activity and sport in schools are interested and have more development, it has basically reached and exceeded the targets set out in the annual plan, in which: 90% the number of students achieved physical training standards. In 2009, the number of school that have enough physical trainer and have sufficient curricular physical training class can reached to 87.3% (Vietnam Standard is 90%).

The current state of physical activity and sport in school has been surveyed in 2012-2013 by Vietnam Sports Science Institute in 2,446 schools (from kindergarten to university) at more than fifty-two provinces and cities.

The survey data show that:

+ The infrastructure for physical education and sport in school:

- The number of school that has 5000m² or less accounted for 41% of the surveyed school. In other word, the number of school that has narrow areas for physical training accounted for 41% of surveyed school.

- The number of school that has gymnastic hall accounted only 13.2%

- The number of school that has swimming pool accounted only 0.13%

- The number of soccer field, volleyball and badminton court are 2.126

Through the survey data, we can see the limitation of infrastructure for physical training in many schools in Vietnam. The number of school that has soccer field and volleyball, badminton court are fairly good. However, not much of school that has gymnastic hall and swimming pool.

+ The number of physical trainer: Most schools have specialized teachers or part-time teacher; the number of physical trainer is limited in most of school, which accounted only 23.9% of school.

+ Curricular sport activity: From elementary school to junior high, generally guaranteed to follow all program according to regulations of the Ministry of Education and Training. The number of school that have enough curricular sport activity accounted for 26.5%.

+ Extracurricular physical training: The number of school has extracurricular physical education are 585 case, accounted for 31.5%. The sport that student like mostly is soccer (14.05%), martial art, dance sport, e-sport.

Through the survey, data shows that all the school has physical education in their curricular courses, which comply with the regulations from Ministry of Education and Training. The number of school that has extracurricular physical education is 31.5% of all school in the survey.

As mentioned in introduction, these surveys have not focused on physical activity towards academic performance in University. It showed only some point like:

- How physical activity impacts to optimized and ideal lifestyle:

There was 92.6-96% male student and 64.6-75% female student have confidence about their future. 89.5-96% male student and 65.5 - 98.3% female student wish to assert themselves in society and it was proven that physical activity has contributed a good point of view and a will of self-reliant.

- How physical activity impact to student's active attitude: 70 -

80.7% male student and 60.2 - 75% male have more diligent in society works. 72 - 84.9% male student and 62.9 - 86.7% male have more diligent in home works... These evident of diligent attitude in student have show that it was effected by physical activity. It also showed the relationship between physical ability and working attitude.

- How physical activity bring a healthy and active lifestyle: - 81.7 -

96% of student confirmed that physical activity could bring a good habit of movement. 85 - 100% of student admitted that physical activity bring a healthy and active lifestyle.

However, these surveys did not mention to their improvement towards academic performance after doing physical activity.

By analysis and comparing the data in the Hanoi University of Science and Technology (Genetic computer school) with similar background - pedagogy, this study will try to show the academic performance that benefit from physical activity in university.

2.5. Hypothesis

H 1. Under the pressure of learning, grades or career in future, students can do better when they are motivated. There is a fact that, students today are not receiving enough positive motivation, nurturing attention from adults, either at home or at school. After participate in physical activities in university, students will have more motivation in learning.

H 2. Student also experienced many stress when learning, like stress about course works, about low grades, examinations. By playing sport or participate in physical activities like training in gym; running or jogging, it will help student reduce their stress in school.

H 3. These two effects can help student have higher academic achievement and grades.

Chapter 3. Method

3.1. Operational Definition

In this research, physical activity in university will be indicated through different sport events or physical fitness in university. It can be a football match between two classes or can be a training section in the gym...

Indicator of motivation that will be used in this research are refers to “the reasons underlying behavior” (Guay et al., 2010, p. 712).

Paraphrasing Gredler, Broussard and Garrison (2004) broadly define motivation as “the attribute that moves us to do or not to do something” (p. 106).

Indicator of stress that used in this research is mainly defined as time pressure, as especially with student. These indicators has mentioned by Shannon et al (1999) in their survey for stress among college student consisted of 40 potentially stressful situation. The scale addressed interpersonal (e.g. change in social activities); intrapersonal (e.g. change in sleeping habits); academic (e.g. increased class workload; lower grade than anticipated; change of major...).

Student in university may have some barrier to physical activity, A-H. El-Gilany et al (2010) reported the barriers to physical activity in their research with some point: “The commonest permanent barriers were time

limitation, lack of accessible and suitable sporting places and lack of support and encouragement from others. The commonest temporary barriers were not being interested in sports, time limitation, unsuitable (hot or cold) weather and feeling tired on physical activity”.

3.2. Population and Samples

Population in this research are 1st year students. The study choose these students because most of them have same curriculum and also have to change their academic, living environment from high school to university.

Latham (2007) defined that “sample in any research conducted, people, places, and things are studied. The opportunity to study the entire population of those people, places, and things is an endeavor that most researchers do not have the time and/or money to undertake. The idea of gathering data from a population is one that has been used successfully over the years and is called a census. To collect data on a smaller scale, researchers gather data from a portion or sample of the population”.

The sample of this study will take from the number of 30 students in Information & Technology faculty and from several sport personnel like PE teacher, sport specialist...

3.3. Unit of Analysis and Sampling Period

According to Wikipedia, “The unit of analysis is the major entity that is being analyzed in a study. It is the 'what' or 'who' that is being studied. In social science research, typical units of analysis include individuals (most common), groups, social organizations and social artifacts.

The unit of analysis in this study will be elements that effect to academic performance in university: motivation and stress.

In order to have data for analysis, this study will make interview with 1st year students in the class of information & technology.

3.4. Type of Research

When researchers want to have insight, fully and comprehensively about an individual or a particular situation, or a classroom, a certain school, a qualitative research will be conducted to answer to the question "How people did it?" or "How these thing have done?"

Qualitative Research Consultants Association defined “Qualitative research is designed to reveal a target audience’s range of behavior and the perceptions that drive it with reference to specific topics or issues. It uses in-depth studies of small groups of people to guide and support the

construction of hypotheses. The results of qualitative research are descriptive rather than predictive”.

3.5. Data Collection Technique

Due to the limitation of studying abroad, this study prefer the method of interview than other method like observation or transect walk.

There are several in-depth interview method for qualitative research, such as Unstructured Interview, Semi-Structure Interview, Structure/System Interview... This study will use Semi-structure interview due to the limitation of studying in abroad.

Semi-structure interview is an interview based on the list of question or topic that needed to be mentioned. However, the order or the way of generating question may depend on the context and characteristic of interviewee. Type of semi-structure interview are:

In-depth Interview

Used to learn deeply in a specific topic, in order to gather a maximum of information on the studied subject. In-depth interviews using semi-structured guidelines based on previous exploration interview about the research topic to be able to know what the appropriate question is.

Case study

To collect comprehensive and in-depth information about the cases that are concerned. "A case" here may be an individual or an event, a stage of the disease, a program or a community. The case study is especially needed when a researcher needs to have knowledge about some people, problems and specific situations, like when the case information, or which may bring a deep perspective color are concerned about the phenomenon.

Advantages of Semi-structure interview:

- Using the list of question will save the time for interviewing
- The list of questions to help identify issues that need to gather information while allowing the flexibility needed to discuss emerging issues.
- Easy to systematize and analyze the obtained information

Disadvantage of Semi-structure interview: It takes time to explore topics of interest prior to identifying research topics and design appropriate questions.

In conclusion, the use of interview offers many significant advantages to the researcher. It is important for the researcher to identify, reduce, and manage the disadvantages that accompanied by the use of other method in qualitative research.

3.6. Data Analysis Technique

After collecting data, the case study method will be used for analysis. Thomas (2011) defined definition of case study is “To analyses of persons, events, decisions, periods, projects, policies, institutions, or other systems that are studied holistically by one or more method. The case that is the subject of the inquiry will be an instance of a class of phenomena that provides an analytical frame - an object - within which the study is conducted and which the case illuminates and explicates.”

A case study is an account of an activity, event or problem that contains a real or hypothetical situation and includes the complexities you would encounter in the workplace. Case studies are used to help you see how the complexities of real life influence decisions.⁸

Kardos & Smith 1979 identified “Analysing a case study requires you to practice applying your knowledge and your thinking skills to a real situation. To learn from a case study analysis you will be analysing, applying knowledge, reasoning and drawing conclusions”.

These works will may prove for this study’s hypotheses is right.

⁸ <https://student.unsw.edu.au>

Chapter 4. Result

4.1. Participants

As mentioned above, there was total of 30 students have been chosen for interview about their opinion of physical activity in university and does it help to reduce stress and to be motivated then link it to their academic performance. In addition, the study has made some interview with other sport-related persons like physical education teacher, sport specialist or journalist in order to explore more opinion about physical activity in university toward student's performance.

The 30 students includes 22 male (73% of participant) and 08 female (27% of participant) students and they are in the same class of information & technology, which belong to international cooperation program between Vietnam and Singapore. They will have 2 years course work in order to archive diploma degree. Their class is 5 days/week, except national holidays.

To participate to this course, all student must graduate from high school, have been following, or graduate from other colleges or university. After graduate this course, students can follow higher course in foreign universities like in U.S, Australia, Singapore... or continue in Hanoi University of Science and technology to archive higher diploma.

In addition, there was five sport-related person like physical education teacher, journalist (who specialize in student and sport in school)... also involved in the interview. The study interview these people because they have experience in student's physical activity and academic performance.

4.2. Current State of Physical Activity in the Genetic Course - Hanoi University of Science and Technology:

Physical activity for the Genetic course in Hanoi University of science and technology is not available officially within the course work. However, administrator of the course always encourage students to play sports or physical activity beside the main course works.

Physical activity in school for student have different way: weekly curriculum, extra-curricular (they do exercise or training by themselves or participate in private club, sport team or tournament in or outside of school). Weekly curriculum is fundamental and mandatory subject in some class. However according to the regulation, there are only 2 hour per week and only 6 option sports, less than the real needs of student. Therefore, the movement of physical activity in many universities are not strong.

4.3. The Study on Physical Activity toward Academic Performance in Hanoi University of Science and Technology.

Physical education

Most of students understood the important of physical activity and admitted that physical activity like football or other sport like jogging has an extreme attractiveness to young person. They always try to save some time to do physical activity to enhance fitness and their health.

Similarly, Shannonhouse (2012) highlights the benefit of physical activity for student “Researchers and educators agree that movement is essential to learning as the brain is activated during physical activity. Therefore, by incorporating physical activity, physical education can have beneficial effects on both academic learning and physical activity patterns of students” (p.5).

However, understanding or having knowledge about the benefits of physical activity in helping student to be motivated or to reduce stress are different thing. Not many people or students know the benefits of physical activity to their motivation and its stress release. This study try to explore the benefits of physical activity and contribute to student’s awareness of the physical activity benefit.

Motivation

Based on the idea of Daniel (2009) in his famous book of Drive: The surprising truth about what motivates us, “Intrinsic motivation, which is conducive to creativity. This allows you to do things for the satisfaction of doing them rather than any monetary reward...” (p.3). Motivation is the motive for all human’s activities. It is an inner state, providing energy and guide people into purposeful behavior. The basic of motivation is emotions; specifically it is based on avoidance, negative emotions experience and positive emotions seeking.

In the interview, students have different motivation of their own. Some student said their motivation to go to school is because of family, some said it for their future and they want to feed themselves or pursue their dreams...

One of participant said, “I came to school because my family want me to join, also because of my hobby...” Especially, another participant said, “I came to school because I like to have my own product”.

However, some students do not have clearly motivation for school. They participate to the class without any dream or hope... or some student are not motivated in school because they have to think about their living,

their job. Many student need to work for their accommodation or their living expenditure... or they are not harmony with class or friends...

One of the participant mention to his motivation “I felt no motivation when I come to school, I felt lonely in my class, I could not be harmony with classmates” and the other female participant also reported “I felt tired and was not motivated at all in the class. I have to work late every night and I do not have energy for academic...).

These thinking from students show the fact that only some of student have good motivation in class. Other students is less motivated with social impact, stress of living pressure; ... When they are not motivated, they often skip class; coming late; skip homework, assignment...

Some student admitted, “I always skip my class, 1 or 2 times per week. I don’t like class, it makes me bored...”

Lack of motivation is a real and pressing issue. More than 40 percent of high school, students are chronically disengaged from school, according to a National Research Council report on motivation⁹.

However, it changed after students participate in the physical activity with their friend or classmates. Their feeling much more improve than before. One participant share his experience in the interview “I am very

⁹ <http://www.nap.edu/read/10421/chapter/1>

excited when joining the physical activity class, like football or volleyball. I think my classmates now are very friendly and we are really enjoy it. I want to meet my friend and come to class everyday”.

Physical activity also help student to be motivated not to skip class because it can bring fun, joy and friendship. One of the interviewee agree and feel grateful to physical activity in his class “I have to say thank to physical activity, it brings me a lot of fun and benefit. I do not feel boring in class now; I come to class more often”.

Brophy (2004) also has expressed about student’s motivation in his paper, “Students are motivated when they think they can be succeed at a given task and when they understand and value the outcome of the task”. Therefore, participation in physical activity help student to fulfill their task easier and they can find the motivation for their class or academic task.

Meanwhile, there are several participants did not recognize the benefit of physical activity to their motivation, especially female student. One of them stated, “I did not feel good after doing physical activity, probably I did not have enough time to enjoy it, I need to finish it quickly and come back to my works...”

Lacking of physical fitness also one of the reason for student who is not able to enjoy physical activity, a female participant wrote, “I feel tired

almost after doing physical activity, it's not suitable for my health. How can I be motivated if I feel tired...?"

By summary the feedback of all participant, the study found that not all of participant agree with the benefit of physical activity with their motivation. The small portion of participant did not agree because of different ideas. It means that, the effect of physical activity to student's motivation is not clearly and the study's hypothesis have been supported with the number participants agreed with the effect of physical activity to their motivation than the number of participants who did not agree.

Stress

Stress is an issue that students often find during class or exam... So, how do students deal with stress?

The first thing is to recognize the sign of stress: It includes abnormal of physical or mental fitness or social relationship... Stress may come with unsafe, angry, or scary feeling... Besides that, looking for alcohol or drug or other uncomfortable feeling are also the sign of stress.

Student often feel stress when they have semester examination or doing assignment or writing thesis... One of the student claimed in the

interview “I always feel nervous when I have exam, especially the final exam in every semester. I am stressed about my academy”.

Most of student feel pressure of academic performance when they come to school. They always need to be stretch to acquire knowledge and to compete with their friend. Students are easily to get stress out when they receive task from educator or professor... A participant report his stress in the class “I feel unsafe or uncomfortable when my teacher give me some difficult task, like to re-design a website with new technology which I was not good at all. I have horrible stress”.

Some studies highlight that disorders of state of mind are linked with physical inactivity and that state can improve when physical activity is resumed (Strohle, 2009 ; Pasco et al., 2011; Dinas et al., 2011; Barcelos-Ferreira et al., 2009; Farmer et al., 1988).

Therefore, in this study through interview students confirmed that they have not good mood in their class but they feel better or improve after doing physical exercises. An interviewee wrote that “When I feel stress or nervous, I always try to think actively and the best way make me think actively is play sport with my friends or simply doing exercise in gym... I feel I have more energy and my thinking become positive”. Another female participant also mentioned her feeling after doing physical activity “Now I

believe myself much more than before when I finished my volleyball match. I can say I can do it, the thing that I could not do before”.

The interviews showed that almost student admitted that physical activity was a good factor that help them to reduce stress in class. Most of students agreed that their stress has been released after doing physical activity. The other small number of participant who did not feel release after physical activity because they did not have enough time or choose a right method. One participant answered, “I have only 30 minutes for physical activity and not every day then I still stress with my course works”.

That is another demonstration for hypothesis of this study. Doing physical activity is one of the best way to release stress, especially for student who have many stress in school with their course works, exam...

Physical activiti and academic performance

The National Institutes of Medicine (2013) identified “after 20 minutes of physical activity, students examined better in reading, spelling & math and were more likely to read above their grade level” (para.3)

As mentioned above many scholar state that, physical activity can help student to have better motivation in learning. A sport journalist - one of the participant in the interview also emphasizes “We can easily see the

enthusiasm or highly competitive/team spirits in the physical training class. It different from the class with boring or nervous lectures/exams... Time in the gym or stadium are always attract more students than other class. Students often tell me that, they like to come to school more often because of these activities and it helps to concentrate in other class”.

A physical education teacher in Hanoi University of science and technology expressed the opinion that, “My students understand that in our life, health is like a trolley - if it’s good, it can carry many dream and help dream comes true. Students - young person, the future of country - doing exercises, training for better health is a necessary duty in their school”. She also confirm, “A healthy mind with many learning motivation, soul of enjoyment only exists in a health body”.

In addition, most of student in the interview have agreed that when they have more motivation in class and less stress in school, they have better academic performance; acquire the knowledge quicker... They also admitted that participate in physical activity in university is a part of learning.

Through evidences and analysis, it has proven that the two hypothesis of this study was right when it showed physical activity has good

effect to student's motivation and help them reduce stress and through these effects, it helps student improve their academic performance.

Chapter 5. Discussion

5.1. Summary of Finding

Table 2. Summary of Findings

Target groups	Stress in class	Stress release by physical activity	Motivation in class	Motivated after doing physical activity	Physical activity and academic performance
Students	- Most of student got stress in class due to exam, academic environment, friendship...	- Student agreed that participate in physical activity help release stress	- Not all student have clearly motivation in learning	- Doing physical activity did not bring clearly effect to motivation according to student's opinion	- Students agreed that release stress and have motivation after doing physical activity could contribute to student academic performance
		- Small number student did not feel release because of different personal issue like do not have time, have to work...	- Only some student believe in future base on their motivation in class	- The number of student who was not motivated after doing exercise have different personal issues like physical ability.	
Sport specialists					Doing exercises, training for better physical fitness is student's duty and it can contribute to a better academic performance.

					Students today got many benefits from the development of the country and physical activity is one of the meaningful benefit for student in class.
Other scholars					National Institutes of Medicine (2013) identified “after 20 minutes of physical activity, students examined better in reading, spelling & math and were more likely to read above their grade level”

5.2. Discussion

In this study, there was two main value have been measured based on participant’s experiences. The findings of this study showed that physical activity have good effect to student’s academic performance when it help student to be motivated and to release their stress.

There were evidence show that with the development of country, the conditions not only for learning course work and also training for health

enhancement are more and more increase; infrastructure or instrument for physical activity are also more available or improved. Students nowadays not only participate in daily curriculum in the class, they also have many extracurricular activities, which are very interesting and attractive for student, like football, swimming, volleyball... tournament, with different scale, from class to class or university vs. university... (Lê Quý Phương, et al., 2002, p.45)

The findings of this study found that physical activity with its duty is to develop comprehensively of physical fitness and base on that to enhance physical abilities, improve stature, improve the fitness and help to improve high skill and/or competence for people's life. Physical activity help students feel fresh and happy after formal and tense classes, it also help students create excitement for next class. Similarly, Division of Adolescent and School Health¹⁰ stated, "Physical activity can help youth improve their concentration, memory, and classroom behavior"

Physical activity happen in society, in school... are community activities. Therefore, life ideal can influence each other. Because of this influence, physical activity contribute to the formation of character, motivation for student in their life and their class. The same as Darla M.

¹⁰ www.cdc.gov/HealthyYouth

Castelli et.al (2015) summarized “Physical activity can have both immediate and long-term benefits on academic performance. Almost immediately after engaging in physical activity, children are better able to concentrate on classroom tasks, which can enhance learning”

The other concept that emerged in this study was about student with stress. Stress is becoming popular increasingly around the world but these studies particularly on stress and mental health has not been adequately focusing. Typically, there are several studies on the incidence of stress with student and on how student cope with stress. The finding of this study has also confirmed the evidence of physical activity effect to the stress release. Similarly, with Anxiety and Depression Association of America¹¹ identifies “It’s impossible to exclude stress, but you can learn to control it”. According to an online poll, some 14 percent of people usually to do physical activity to cope with stress and there were several different ways to cope with stress. Meanwhile, their tips to help people to cope with stress are mostly related with physical activity, like take time to practice Yoga, try to do exercise daily...

A proficient/good student is also the one who lead the way in physical activity or doing exercise or training movement in dormitory or

¹¹ <http://www.adaa.org>

school. Because physical activity is a good factor to make them become good student who can acquire the knowledges quicker. If they have a good heath, they always come to class without tiredness or laziness... They have better ability to acquire the knowledge and use it effectively in concrete situation.

5.3. Implication

Physical activity has special function to young generation or students. However in Vietnam, many people think it has function of entertainment or physical fitness only. This contrasts from developed countries where people think sport is prominent factor in our daily life (John J.Macionis, “Sociology”, Prentice Hall - Toronto Canada, 1987).

The function of mind-body improvement is one of the important part of physical activity. Many research has proven that, physical activity and mind-body activities are related which help to recover not only the body and also the mind. Meanwhile, physical activity also help to develop feeling organs or brain... especially for young person. It shows that, reasonable physical activity has a very good effect to young person when improve the capacity function of mental system.

Fully understand the functions of the physical activity can increase investment, through increasing organized physical activity, conscious, mental strengthening, or to form a healthy lifestyle for people.

The findings of this study show that most of students know the important of physical activity. Even the physical activity is not a mandatory subject for Genentic program (class of technology and information) but most of students always try to do it with their friends, in the gym... because it can help them to reléase the stress.

The results to this study lead to the conclusion that, despite the fact that even there is not enough infrastructure or equipment for students in university, they still try to do physical activity in different way. They may have football match with their friend in an empty space where has only concrete ground, not glass like in stadium... or simple they can do some jogging in the morning around their home... Because they know that, physical activity can help them to have more motivation in school. They also do physical activity to seek for a good way to reduce their stress or having fun with friends after tense course works. Examing these results shows that students highly appriciate physical activity as a good medicine for stress-related illness.

These results can be interpreted in two ways. The first interpretation is that physical activity are benefit to students because it help them to reduce stress and allow them to feel more motivated in their class. The second interpretation is that when student have less stress and more motivation in class, their academic performance better than before. This poses an interesting question that will lead to another study to see how much physical activity in one day is good for student or how much physical activity student should do in 1 week to maximine their performance in school.

This survey interview asked students about their opinions towards benefit of physical activity. The purpose of this study was to determine how physical activity helps students to reduce stress and have more motivation in school. The results to this study supported the original hypothesis that when doing physical activity, students can have better academic performance because they have less stress and more motivation.

5.4. Limitation and Future Research

Physical activity is a social sport with duty of “comprehensive development of physical fitness and on that basis develop physical capacity which ensure fitness stature, consolidate the health that can be formed in the

system and carry out the necessary improvement to the skills and techniques essential for life”.

However in fact, there are many universities in Vietnam currently have not focused in physical activity for students and it could be said that physical activity is just a formality and does not attract students to participate.

Sports in school from primary school, high school to university not developed; not remarkably, effective in education is the biggest concern for those who work in the education industry.

Through the interview, this study found that there are many reason lead to physical activity can not bring effective impact on students in Vietnam and vice versa. The reason may come frome students like: they do not aware the meaning and effect of physical activity; the have a low fitness capacity then do not feel comfortable to do exercise in public area; some of them need to work and do not have time for physical activity... Also, there are several objective reasons may come from university or society like lacking of knowledge or attractive teaching method or academic pressure; lacking of equipment or infrastructure...

However, this study have only small sample of interviewee and it does not respresentative for many students and universities in Vietnam. The

study only tried to discover a small portion of physical activity effect to student and how it help student to be motivated and to reduce stress, then through these effect student will have better academic performance in their class.

Physical activity and its effect to student's academic also a broad issue and need more research, especially in the developing countries where the students and educators have not yet recognised the important of physical activity and its effect to student's performance. The next study can explore the effect of physical activity to student's lifestyle which also a very interesting and very broad issue related to student and physical activity in school.

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Appendix A

Questionnaire for students: Does physical activity help to reduce stress and to be motivated in your school?

1. How often do you get stressed out? (Bạn có hay bị căng thẳng không?)
2. Does stress physically affect you? (Căng thẳng có ảnh hưởng đến thể trạng của bạn không?)
3. Do you get nervous easily? (Bạn có dễ bị lo lắng không?)
4. How do you release stress? (Bạn làm gì để giải tỏa căng thẳng?)
5. Do you work well under pressure? (Khi bị căng thẳng bạn có thể làm việc tốt chứ?)
6. Do you have enough time to relax? (Bạn có đủ thời gian để giải tỏa căng thẳng?)
7. How do you reduce stress in your life? (Bạn có biết cách giảm căng thẳng trong cuộc sống?)
8. Why do you feel stress? (tại sao bạn thấy căng thẳng? Vì các kỳ thi, vì điểm số, vì thầy giáo, vì bạn học...?)
9. Do you think physical activity really reduce stress?
10. What are three things that motivate you? (Mô tả 3 thứ có thể thúc đẩy bạn?)
11. Do you feel motivated when you are at school? (Ở trường bạn có cảm thấy có động lực không?)
12. Do you feel motivated when doing physical activity? (Bạn có cảm thấy có động lực khi tham gia hoạt động thể chất?)
13. Does motivation affect learning? (Động lực có ảnh hưởng đến học tập không?)

14. What do you do to keep your motivation? (bạn làm gì để duy trì động lực của mình?)

15. Do you feel physical activity has good effect to your student life? E.g. Active entertainment; health increasing; stress decreasing; more confidence... (bạn có nghĩ hoạt động thể chất mang lại những ảnh hưởng tốt đối với cuộc sống sinh viên? Vd như tăng cường sức khỏe, giải trí lành mạnh, giúp giảm stress, tăng cường sự tự tin...)

Appendix B

Questionnaire for sport specialits: Does physical activity enhance student's academic performance by reducing their stress and booting their motivation?

1. What do you think if physical activity help student reduce stress or not?

Bạn có cho rằng hoạt động thể chất có thể giúp sinh viên giải tỏa căng thẳng hay không?

2. What do you think about student's motivation and is there any connection between physical activity and student's motivation?

Bạn nghĩ gì về động lực trong sinh viên và có mối liên kết nào giữa hoạt động thể chất và động lực của sinh viên không?

Appendix C

Reference for questionnaires

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국문 초록

하노이 과학 기술대학 학생들의 학업수행과 운동간의 관계 분석

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체육교육과

학교에서의 운동은 운동의 기초이고 사람들의 일상생활에 영향을 미친다. 운동이 학생과 일반인들에게 미치는 영향에 관한 연구는 오랜 시간 되어왔고 연구관련 많은 결과물들이 있다.

보통 운동은 학생들에게 좋은 효과를 준다. 그러나 학생들은 이러한 효과를 아는가? 그들은 운동이 그들의 스트레스를 감소하고 동기를 부여한다는 것을 아는가? 그들은 그들이 운동을 한 이후에 학업수행이 개선되었다 보는가? 본 연구는 인터뷰를 통해 학생들이 운동이 학업수행이 혜택을 준다는 사실을 찾고 볼 수 있게 하고 싶다.

구체적으로 본 연구는 학생들이 운동 이후에 더 적은 량의 스트레스를 받고 동기부여를 받는지 그리고 학생들이 더 나은 학업수행을 하는데 도움을 주는지를 조사하고 싶다.

조사를 위해 본 연구는 30 명의 학생과 5 명의 운동 전문가를 인터뷰하였다.

1. 하노이 과학 기술대학에서의 운동(체육활동)
2. 학생의 동기부여와 운동이 학생들에게 동기부여를 주는지의 여부
3. 학생들의 스트레스와 운동이 학생들의 스트레스를 감소시켜주는지의 여부

연구 결과는 본 연구의 가설이 옳다는 것을 입증하였다. 많은 학생들이 운동의 중요성을 알아 운동이 의무가 아니어도 대부분의 학생들이 운동을 하려고 하였다. 그들은 운동이 스트레스를 줄여주고, 학업에의 동기부여를 해줌으로 운동이 그들의 학업 수행능력을 개선 시켜줌을 알았다.

주요어: 운동, 스트레스, 동기, 학업수행

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