

## *Healthy Lifestyle Education in the CLIL Classroom*

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### **Abstract**

Scientific studies have shown that poor health can lead to lower academic achievement and poor class attendance in school. Teachers report improvements in attendance, attention, behavior, and levels of concentration in schools where healthy eating has become accepted practice. Research also shows that healthy lifestyle habits during adolescence/pre-adult can prevent many of the diseases and disabilities in adulthood and later. Health economists affirm that people with a better education are more likely to choose a healthier lifestyle. Considering this evidence, it is strongly suggested that education on how to have a healthy lifestyle be a mandatory subject for all students – and the younger one learns, the better. However, given the time and curriculum constraints of most schools, this is not an easy goal to achieve. Accordingly, Obihiro University of Agriculture and Veterinary Medicine (OUAVM) has chosen to incorporate healthy lifestyle education as a content and language integrated learning (CLIL) course in the English program. CLIL, which has other definitions, is a teaching method that involves teaching students about a given subject in a foreign language. It has become the umbrella term for simultaneously learning a content-based subject, such as lifestyle health, through the medium of a foreign language, while concurrently improving one's ability in the foreign language by using it to study the given subject. This paper shows how this integration can be done practically by incorporating eight natural laws of health from the NEWSTART Lifestyle program into a health course also categorized as an English III CLIL course at OUAVM.

Keywords: Newstart, Healthy Lifestyle, Nutrition, Academic Achievement, Education, CLIL

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## Introduction

Research has shown that substandard health conditions can be associated with lower grades in school for students and higher absenteeism (Centers for Disease Control and Prevention, 2014; Kim et al., 2016). Teachers have reported improvements among students in attending classes, attention span, behavior, and levels of concentration in schools where students get a proper nutrition intake on a regular basis (Adolphus et al., 2013). Studies also show the importance of forming healthy lifestyle habits early in life for helping to prevent many of the diseases and disabilities in adulthood and later (Jones et al., 2019; Saffari et al., 2013). Health economists argue that better educated people are more likely to choose healthier lifestyles (Li, 2014). And, last but not least, the rising incidence of new viruses and other diseases, such as COVID-19, has led us to realize the importance of a healthy lifestyle in providing stronger immunity against such diseases (Zimmerman & Woolf, 2014).

As a health and nutrition educator, I've had a long-standing interest in such research on health and the importance of its effects on academic performance. The outbreak of past diseases, but especially the COVID-19 pandemic and fallout, have only reinforced the sense of urgency for better health education. The data keeps showing that better health leads to better academic performance and, vice versa, poor health is associated with poor academic achievement and students missing more classes (Nyaradi, 2013).

A paper by Amy Ross (2010) looked at studies concerning nutrition and its relationship to brain function, ability to learn, and social behavior. The studies showed that proper nutrition has a direct effect on student performance and behavior in school, and confirmed that nutrition has a direct effect on neurotransmitters which are important in sending messages from the body to the brain. Interestingly, obesity contributed to lower achievement in school.

The model below from Chrissy Carroll's study in *Today's Dietitian* shows this cyclical relationship between poor nutrition and educational outcomes (Carroll, 2014).

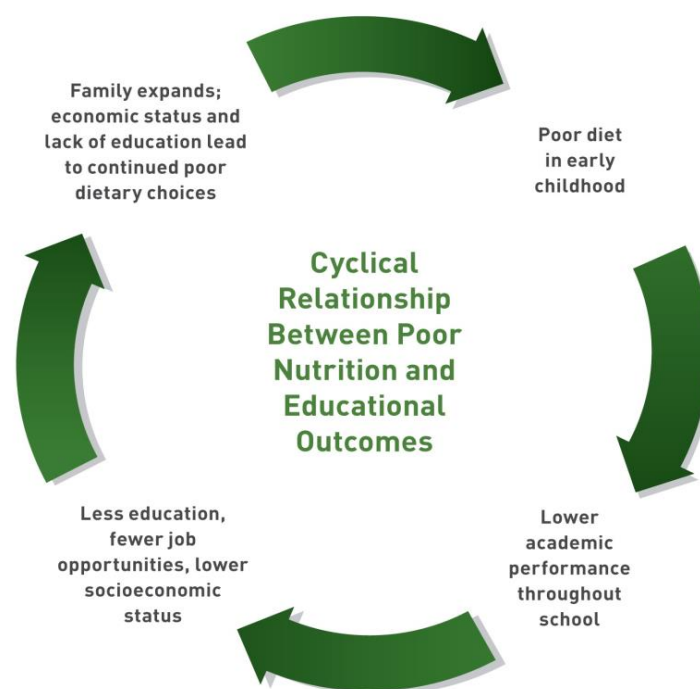


Figure 1: Cyclical Relationship between Poor Nutrition and Educational Outcomes

With this evidence in hand, it is strongly suggested that healthy lifestyle education be a mandatory subject for all students – the younger, the better. However, given time and curriculum constraints, this is not an easy goal to achieve.

### **Content and Language Integrated Learning (CLIL)**

For this reason, Content and Language Integrated Learning (CLIL) plays an essential role. CLIL is a teaching method that involves teaching students about a given subject in a foreign language (van Kampen et al., 2016). It has become the umbrella term for simultaneously learning a content-based subject, such as lifestyle health, through the medium of a foreign language, while concurrently improving one's ability in the foreign language by using it to study the given subject. This dual achievement through a single action is aptly portrayed by the idiom “kill two birds with one stone”. The term CLIL was coined by David Marsh, University of Jyväskylä, Finland (1994): “CLIL refers to situations where subjects, or parts of subjects, are taught through a foreign language with dual-focused aims, namely the learning of content and the simultaneous learning of a foreign language (Marsh, 2017).”

The concept of CLIL has also been described as ‘content-based instruction (CBI)’, ‘bilingual education’, and a host of other terms; and, for English-specific learning, has been called ‘English for Academic Purposes (EAP)’ or ‘English medium instruction (EMI)’ (Brown, 2018). The advantages of such a dual approach include learning content while developing language skills, being able to integrate language learning into a broader school curriculum, increasing student motivation, fostering thinking and application skills among students who see the importance of language in their areas of interest and real-life situations, and, overall, the potential to create a more natural learning environment (Shraiber & Ovinova, 2017).

Accordingly, with Obihiro University of Agriculture and Veterinary Medicine (OUAVM) being a science university with no language degree program, CLIL becomes an essential tool for ensuring language acquisition among students. OUAVM has incorporated healthy lifestyle education as a content and language integrated learning (CLIL) course in the English program where the two subjects can be studied simultaneously.

The rest of this paper shows how this can be done practically by incorporating the eight laws of health in the NEWSTART Lifestyle program into a health course also categorized as an English III CLIL course.

### **Eight Natural Laws of Health (NEWSTART)**

The challenge of health today is to educate and motivate people to adopt a healthier lifestyle, and to help them realize that one can do more for their own health than any doctor, hospital or technological advance (Berger, 2015). The scientific data confirms that the choices we make, hour by hour, day by day, largely determine the state of our health, the diseases we get, and often even when we will die (American Heart Association, 2015).

But what are the right choices? One day a newspaper ad may promote a high carbohydrate diet, the next day a low carbohydrate diet, and another day a no-carbohydrate diet. Which is correct? So much health information flowing through the media is overwhelming, confusing, and often contradictory. People want information that is reliable, understandable, and scientifically sound.

For these reasons, a course teaching time-tested health principles becomes essential, an attractive course to show students how they can look and feel healthier, stay younger, and gain a clear understanding of how to manage their life for maximum health and wellbeing.

Accordingly, this paper shows how this can be done practically by incorporating the eight natural laws of health in the NEWSTART Lifestyle program. NEWSTART is an acronym for these eight natural laws as shown here: N stands for nutrition, E for exercise, W for water, S for sunlight, T for temperance, A for air, R for rest, and T for trust (NEWSTART, 2021). Following is a more in-depth look at each of these health guidelines.

## **1. Nutrition**

At a global level we see that the majority of deaths are attributed to the category of non-communicable diseases (NCDs); these are chronic, long-term illnesses such as cardiovascular diseases (including stroke), respiratory diseases, cancers and diabetes that collectively account for more than 70 percent of global deaths (Ritchie & Roser, 2018). Yet, research has shown that these diseases are largely avoidable and caused by lifestyle. For example, changing to a simple diet during World War II caused a drop in heart disease and stroke (Esselstyn, 2013). Most cancers could be prevented through lifestyle modification (Barnard, 2004). Unfortunately, the average American diet consists of high-fat and low-fiber content (Prasad, 2019).

The American Cancer Society guidelines for nutrition and cancer prevention advise us to choose foods from plant sources (Kushi et al., 2012). Animal products are the largest source of saturated fat and cholesterol, and have no fiber. So, we should limit our intake of high-fat foods, particularly from animal sources. In fact, whole-grain breads, cereals or rice should be our main source of energy (Jonnalagadda, 2011). This should be accompanied by at least 5 servings of fruits and vegetables each day. Fruits and vegetables have been consistently shown to reduce the risk of many lifestyle diseases (Harvard School of Public Health, 2021). And to ensure an adequate intake of fiber, protein and energy, legumes should be included in our diets as well.

The best diet turns out to be plant-based or vegetarian (Berger, 2018). In fact, more people – especially the well-heeled, actors and sports figures – are choosing a vegetarian, and even vegan, lifestyle (Tanenbaum, 2018). With powerful evidence also showing the positive environmental impact of a vegetarian lifestyle, in addition to the health benefits, it only becomes that more essential for ensuring a healthier and safer future.

## **2. Exercise**

The good news is that greater vitality, better health and longer life can be ours through regular, brisk physical activity. A sedentary lifestyle is a direct route to an earlier grave. Inactivity kills us – literally (Kandola, 2018). It is said that everyone has two doctors: the right leg and the left leg (Trevelyan, 1928). The more we use them, the healthier we will be. Exercise is the second natural law of health that helps us feel good by maintaining a desirable weight, strengthening the heart and bones, lowering blood pressure and the LDL cholesterol level, along with lifting depression and relieving stress (Semeco, 2017). And it even slows down the aging process (University of Birmingham, 2018).

Everyone should choose an enjoyable exercise and participate in it regularly. Walking is the ideal exercise. It's inexpensive, safe, and nearly everyone can do it. You can select your own

speed and you can stop when you want. As your fitness improves, you can gradually add speed and time. Other good exercises are swimming, bicycling, gardening, and even golf – if you don't use a cart.

To be effective, active (aerobic) exercise should be brisk and continuous for at least 15 to 20 minutes. A daily program of 30 to 40 minutes of active exercise will give you maximum benefits (Centers for Disease Control and Prevention, 2018).

### **3. Water**

We all learn early in life that the body is around 45% to 75% water. Our kidneys process more than 175 liters daily. And the body loses about 2.5 to 3 liters daily through the skin, lungs, urine and feces. If this water isn't replaced by drinking plenty of fresh water daily, our body systems suffer and manifest symptoms such as body odor, bad breath, and unpleasant-smelling urine, and eventually more serious complications (Benelam & Wyness, 2010).

Beverages other than water, however, can pose special problems. Many have fat and sugar calories that must be digested like food. Sugar in beverages requires extra water for metabolism. Studies have demonstrated that caffeine and alcohol dehydrate the body because they work as diuretics, contributing to fatigue, dry skin, indigestion and headaches (Stokey, 1999).

How much water should a person drink? Drink enough to keep the urine pale. Since the body loses 2.5 to 3 liters of water a day, and food provides 0.5 to 1 liter of water, we should try to drink 1.5 to 2 liters of water daily. Get into the habit of drinking water throughout the day (Benelam & Wyness, 2010).

### **4. Sunlight**

The fourth natural law is sunlight, which serves an essential role in killing germs, enhancing skin and sleep, boosting the immune system, reducing pain from swollen arthritic joints, relieving certain symptoms of PMS, lowering blood cholesterol levels, and even elevating one's mood, which helps alleviate depression problems. What's more, sunlight on the skin helps the body manufacture vitamin D (Grimes et al., 1996; Raman, 2018).

One must be careful, though, not to get too much. Sunburn destroys healthy, living tissue and is a major risk for skin cancer (Grey, 2018). Even too much of a good thing can often be hazardous. Up to 30 minutes of sunshine a day is sufficient for most people (Nall, 2018).

### **5. Temperance**

Temperance can be defined as, first of all, abstinence - refraining from unhealthy practices like smoking and alcohol abuse (Wikipedia, 2019), secondly, choosing foods in a more natural or wholesome state (less processing) like whole grain bread and brown (unpolished) rice, and thirdly, seeking for balance and moderation, even in important and healthy things like sunlight mentioned earlier.

There is the story about a woman who heard that carrots were rich in beta-carotene, which the body turns into vitamin A and provides protection against certain cancers. So, she started juicing 2 to 3 kilograms of carrots every day. When her skin started turning a sickly yellowish color, her doctor told her she was getting too much beta-carotene.

Too much of a good thing can be a bad thing when it comes to health. Common sense and moderation will do more for your health than any health fad or “miracle cure”. Temperance is an important key to good health that we should learn to apply to all areas of our lives (Nation Online, 2010).

## **6. Air**

Given that air is the backbone of life and all body functions, most people recognize that clean and fresh air is vital to a vibrant life. Air is composed of about 21 percent oxygen, the rest being nitrogen and other gases (Powell, 2018). Since the body operates on oxygen, a steady fresh supply is vital for life. Oxygen is picked up in the lungs from the air we breathe, and delivered to our bodies via the red blood cells. Well-oxygenated cells are healthy and contribute to overall well-being (Cedar, 2018).

Unfortunately, we have little control over the quality of the air we breathe each day depending on where we live and levels of pollution; but, when possible, steps should be taken regarding indoor air quality and ensuring it is refreshed regularly. Another “feel good” technique is to stop where you are and take a few slow, deep breaths several times a day (Harvard Mental Health Letter, 2009). A final way to flush your body with oxygen is regular exercise mentioned earlier.

## **7. Rest**

Life today has become fast-paced, demanding and exhausting, with people constantly on the go. Yet, the inability to sleep has become epidemic with many people resorting to sedatives and tranquilizers. For other people, getting to sleep isn’t the problem, but making time for it with their busy schedules.

Rest is the time for the body to renew itself by restoring energy, removing waste, repairing of damaged cells, managing stress and strengthening the body’s immune system against disease (Besedovsky, 2019). Insufficient rest means this process is incomplete, leading to adverse effects over time.

People need different amounts of rest, but the average adult does best on 7 to 8 hours of quality sleep each night. Newborn babies sleep from 16 to 20 hours, while young children usually need 10 to 12 hours (Mental Health America, 2019).

Some tips for getting a good night’s sleep include going to bed and waking up the same time each day, avoiding caffeine, not using alcohol as a sedative, daily exercise and sun exposure (National Institutes of Health, 2015).

Your body is your most valuable possession. It may be tempting to skip sleep, but in the long run that is counterproductive (Eugene & Masiak, 2015).

## **8. Trust**

Trust is the mental component of the eight natural laws of health. It refers to possessing a good mental attitude and peace of mind with the ability to not worry too much. More and more people are living longer, healthier lives, but surveys show they are feeling less and less satisfied mentally, and the trust component is dropping (Yang, 2013).

It's been said that the condition of the mind affects health much more than many people realize. Anger, fear, resentment and distrust can actually produce effects on the body that weaken its immune system and open the door to disease. On the other hand, positive emotions like love, joy, faith, and trust produce protective substances that strengthen the immune system and protect the body from disease. Scientific research has actually demonstrated that people who trust in God are healthier than people who don't believe in God (Harrington, 2010).

Trust, thus becomes a vital component of good health and a rewarding life (Bhattacharya, 2003; Mental Health Foundation, 2018).

## **Conclusion**

Since it has been studied and reported that an unhealthy lifestyle leads to lifestyle diseases and related problems - more specifically to lower academic performance and achievement among students - efforts must be made to improve their health, especially through education that leads to lifestyle changes. However, given the time and curriculum constraints, this is not an easy goal to achieve. For this reason, an English CLIL course in basic and practical health was developed at OUAVM to ensure that students get the double benefit of improving their health and English skills simultaneously. Feedback has been positive of this approach, especially when employing the eight laws of natural health that encourage students to make practical healthy lifestyle changes for their future.

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