Digital literation to increase health awareness: a case of mediteranian diet
Munaja Tulloh 1*

1 Faculty of Economics and Business, Universitas Nasional.
* Correspondence: munajatulloh20@gmail.com

Received Date: April 29, 2023
Revised Date: June 20, 2023
Accepted Date: June 21, 2023

Abstract
The heart disease is usually caused by various bad habits such as smoking, rarely exercising, having an unhealthy diet, as well as the habit of consuming alcohol. Coronary heart disease is ranked as a deadly disease with the additional data that some people aged over 15 years have cholesterol, triglyceride and LDL levels that are above normal. Students who study at tertiary institutions and become students who migrate and live in dormitories or boarding houses, the majority have unhealthy eating patterns, either due to lack of attention from parents, freedom to choose food, lazy to cook, or limited funds. For this reason, it is necessary to have a strategy that can be implemented by students as an effort to maintain heart health. One way to do this is by modifying your diet. Diet modification is an activity to reduce or replace unhealthy food intake with healthier food. In college students, awareness of maintaining a healthy diet must be instilled so that in the future, especially in old age, they do not have unwanted diseases due to wrong lifestyles in their youth. For this reason, as a student, you must be very aware of the importance of maintaining health, especially heart health by changing patterns eat to be healthier by consuming lots of fiber intake. This food modification can be realized through the implementation of a diet in the form of a Mediterranean diet.

Keywords: awareness; behavior; digital literacy; health; mediteranian

1. Introduction
Students are a term for people who are studying at tertiary institutions such as high schools, colleges or universities. According to KBBI, a student is someone who studies at a university. Students come from two words, namely “maha” and “student” which means higher than students or students (Sari & Pujiono, 2017). Students and generations of students can be categorized as agents of social change where regeneratively every change must be passed on to groups who function as initiators of ideas and education (UIN, 2021). Students consisting of the younger generation are the nation's baton who bear the responsibility of being the pioneers of change and revolution in all aspects of life so that it is better. As the younger generation, students are required to innovate in every turmoil of world changes, including in preparation for the era of Society 5.0.

Currently, Indonesia is welcoming the Society 5.0 era. Era Society 5.0 is an era where people are required to overcome social problems through the use of innovations born in the Industrial Revolution 4.0 era such as the Internet of Things, Artificial Intelligence, Big Data, and Robots. In this era, people must get used to doing many technology-based things (Muvid, 2021). Since the pandemic, people have started to recognize the implementation of the Society 5.0 era in life, especially those related to education and literacy that adopt digital technology. For this reason, students must be able to provide new ideas and innovations in the field of education in an effort to improve the quality of human resources in the current digitalization era.
Apart from being responsible for studying hard and becoming smart students, students are also required to encourage changes and improvements in the fields they study as a form of implementation and realization of the knowledge they have while studying at tertiary institutions. Higher Education is an educational institution that is a hope for many parties such as youth, parents, and society because they have a strategic function in preparing a better future for the nation and state (Dewi, 2020). Higher Education has the Tri Dharma of Higher Education, namely the goals to be achieved, and consists of three components, namely education and teaching, research and development, and community service.

One of the embodiments of the Tri Dharma of Higher Education in the field of education and teaching can be carried out with dedication to educating the lives of the nation's children as one of the steps for change. In this case, students can play an active role in breaking up education through the contribution of their knowledge in underdeveloped areas such as border areas. To improve the quality of education, students can volunteer to teach in areas with minimal access to learning. The 3T areas (Frontier, Remote, and Disadvantaged) are areas with the lowest quality of education (Putera & Rhussary, 2018). This service activity can be carried out online or offline. Offline activities can be carried out by accompanying school children so that they can continue to acquire learning that is difficult due to online learning policies. Meanwhile, online activities can be carried out by students by giving seminars through online platforms related to how to keep studying productively during a pandemic. Children who are in school can be taught to start learning using educational media available in the digital space. Many platforms can be accessed to support learning. In this case, students can provide counseling related to digital literacy to children or the public so that they can use digital media as a means to gain knowledge, insight, and knowledge.

One of the most essential problems in the field of education is that Indonesia is experiencing a literacy emergency. It is known that Indonesia has a low interest in reading. In the reading ability survey conducted by PISA, Indonesia ranks 6th or ranks 68th out of a total of 74 participating countries (Solihin, 2020). Of course this is a worrying problem where the reading culture in Indonesia is still relatively low. In fact, reading culture is one of the characteristics that must be possessed to follow modern civilization. From these problems, students as agents of change in welcoming the era of society 5.0 must be able to contribute to overcoming these problems. The role of students in increasing the literacy movement in society as a step to educate the nation's children is to instill a passion for cultivating literacy in themselves. This effort can be realized by contributing to activities to improve literacy culture such as volunteering for the library, volunteering for literacy education in the community, participating in book fairs, or selecting language ambassadors. With this small step, we as students have become role models so that more students and other communities can participate in improving a reading culture.

A small change will have a big impact on the development of the nation and state. Students can become brains in initiating various activities positive changes in the nation. In the current era of digitalization, plagiarism or copy-pasting activities are very easy to do. Prihatini and Indudewi (2016) conducted a survey and the results showed that the practice of copying and pasting is something that students often do during lectures (Prihatini & Indudewi, 2016). For this reason, students must be equipped with literacy skills so that they can create original and creative creations of their creations. Students as the younger generation must be able to prove that Indonesian people's interest in reading is not bad and can increase with small adjustments. A high literacy culture can accustom students to processing various words so they can produce quality work. This can also be emphasized to the community as a social literacy movement. If society cultivates literacy, then the reading interest index of the Indonesian people will increase. Of course, this means that the quality of education in Indonesia has also improved.

The existence of students in increasing digital literacy can also be realized by adapting activities that enliven the digital literacy movement. Digital literacy is one of the efforts to adapt information and communication technology as a strengthening of literacy
by the Society 5.0 era. This digital literacy allows people to obtain various information and knowledge through digital technology. This effort can be cultivated in the community by spreading awareness about the importance of increasing a reading culture through various posters and educational videos on social media, newspapers, radio, magazines, or television. With the socialization of the importance of reading, people will be motivated to read so the reading interest of the Indonesian people tends to increase.

Students are agents of change in the life of the nation and state. The low interest in reading in Indonesia is one of the most crucial problems, especially in the world of education. Educating the life of the nation is one of the ideals of the state. Therefore, students play an important role in increasing literacy culture both among students and the community as one of the steps to improve the quality of education and the reading index in Indonesia. With a high interest in reading, then the Indonesian people may have broad insights to create quality human resources. A low percentage of adolescents present optimal AMD (Papadaki et al., 2023). Demographic and lifestyle characteristics affect diet quality among adolescents. Less night-sleep duration and more screen time deteriorate adolescents’ AMD. The majority of the differences in AMD within gender and education level are explained by PA and BMI.

2. Methods
In this study, the method used approaches qualitative with a descriptive design which aims to provide an overview of individuals or groups of the symptoms that occur. In this study, the analytical technique used to obtain this description was through a literature review where the researcher collected data from various sources and then analyzed it and drew an appropriate conclusion. Thus, this research focuses on conducting a study of a phenomenon that is described by descriptive data in the form of words and language. In this case, the discussion is carried out specifically with natural considerations and utilizing scientific methods.

In this study, the author utilized several methods, including literature review and discourse analysis. The author realized that this approach will give a proper analysis on how the implementation of mediterranean diet could be beneficial to increase health awareness and actual health results in community. This diet is analyzed not only by using science-based approach through literatures’ analytics, but also how it is suitable to implement on a daily basis.

3. Results and Discussion
Heart disease, which is also often called cardiovascular disease, is one of the diseases with the highest percentage that can result in death in Indonesia. The World Health Organization (WHO) succeeded in collecting data in 2012 which showed the results that the highest causes of death cases in the world were caused by ischemic heart disease, especially in countries in the world that have income levels or income from various groups such as middle to lower, middle to high, and high (Anggraini & Labibah, 2016). Cardiovascular disease can be regarded as a disease caused by impaired heart and blood vessel function. In other words, an unhealthy heart can trigger cardiovascular disease which is known to be capable of causing the death of as many as 17.9 million lives each year (Nurlia & Enri, 2021).

WHO also states that 31% of deaths worldwide occur due to cardiovascular disease (Wihastuti et al., 2016).

This cardiovascular disease often occurs when the heart organ fails in carrying out its function of pumping blood to all parts of the body, resulting in impaired physiological circulation and in the worst case it causes sudden death. Not only that, even in America itself cardiovascular disease due to heart failure is said to be the number one cause of death. This is evidenced by data from case records which show that as many as 5.7 million people suffer from heart failure, and nearly 300,000 of them end in death (Weiss et al., 2019). From these various facts, it can be ascertained that maintaining heart health is a very essential aspect to be able to carry out daily activities properly and be able to increase productivity. Lifestyle factors including diet, smoking, alcohol consumption and physical activity may influence
reproductive prognosis, both in natural and assisted conception. With respect to diet, several studies have been published so far investigating the association between diet and fertility and, despite some inconsistencies, there is growing acceptance that IVF outcomes may be affected to different extents by preconception dietary habits, which seem to impact on oocyte, implantation and successful completion of pregnancy (Noli et al., 2023).

Heart disease is usually caused by various bad habits such as smoking, rarely exercising, having an unhealthy diet, as well as the habit of consuming alcohol (Anggraini & Labibah, 2016). In living your youth, a healthy lifestyle must always be applied to have a healthy heart so that productivity increases. Based on Basic Health Research (Risksesdas) data in 2013, coronary heart disease is ranked seventh in all of Indonesia as a deadly disease with the additional data that some people aged over 15 years have cholesterol, triglyceride, and LDL levels that are above normal (Budiawan et al., 2019). Students who study at tertiary institutions and become students who migrate and live in dormitories or boarding houses, the majority have unhealthy eating patterns, either due to lack of attention from parents, freedom to choose food, laziness to cook, or limited funds. Subjects exhibited circannual patterns consistent with menstrual cycle disturbances. Poor diet & psychosocial stress exert additive negative effects on ovarian function. Mediterranean diets may protect against ovarian dysfunction and pathologic sequelae (Frye et al., 2023).

Students who live independently in boarding houses tend to be more free and flexible in determining food intake so not a few students do not pay attention to a healthy diet, unlike when they are at home where their parents are watching. Boarding students tend to choose instant noodle menus as their daily staple food (Saepudin et al., 2019). Not a few also admit that they only eat when they remember with a frequency of once or twice a day due to the busy activities they are doing at the lecture bench. The free time that is quite thin also means that many students do not have time to exercise, so a healthy lifestyle is rarely found anymore. Only a few of these students are aware of the importance of maintaining health, especially heart health. The Mediterranean diet (MedDiet) is suggested as a healthy dietary pattern. 14-point Mediterranean Diet Adherence Screener (MEDAS) questionnaire is a valid and rapid tool to estimate the adherence to the Mediterranean diet. The aim of this study was to assess the validity of the 14-point Mediterranean Diet Adherence Screener in Turkish population (Bekar & Goktas, 2023).

For this reason, it is necessary to have a strategy that can be implemented by students in an effort to maintain heart health. One way to do this is by modifying your diet. Diet modification is an activity to reduce or replace unhealthy food intake with healthier food. In college students, awareness of maintaining a healthy diet must be instilled so that in the future, especially in old age, they do not have unwanted diseases due to wrong lifestyles in their youth. For this reason, as a student, you must be very aware of the importance of maintaining health, especially heart health by changing patterns eat to be healthier by consuming lots of fiber intake. This food modification can be realized through the implementation of a diet in the form of a Mediterranean diet. The Mediterranean diet recommends consuming less than 12 g of animal fat per day. All groups have a consumption of less than 12 g, which is desirable. The fact that there is no difference between the groups according to the tertile does not affect the accuracy of the Mediterranean diet score. Pulses consumption is unfortunately low in Turkey according to Turkey Nutrition and Health Survey (14.8 ± 22.78 g per day) [31]. Nutritional interventions are needed to increase adherence to the Mediterranean diet and thus increase its health benefits (Bekar & Goktas, 2023).

The Mediterranean diet can be said to be one of the traditional diet-based eating patterns that used to be often practiced in several European societies, especially in the Mediterranean region (Anggraini & Labibah, 2016). The characteristics of the Mediterranean diet are light preparations such as beans and legumes as a staple food. Mediterranean individuals eat fresh vegetables every day, fresh fruit as a dessert every day, and sweet nuts, olive oil and honey are only consumed at certain celebrations (Rejeki & Prasetya, 2021). This Mediterranean diet has the potential to lower plasma cholesterol.
levels thereby minimizing the incidence of cardiovascular disease and preventing heart disease in people who adopt it. The Mediterranean diet is also considered a dietary model that has a great opportunity to provide protection against coronary heart disease (Hatma, 2017).

Current knowledge of the role of weight changes on disability is conflicting. Weight loss is more common than weight gain amongst the oldest old. Weight loss is a risk factor to increased incidence of IADL impairment in oldest old (Corona et al., 2023).

The Mediterranean diet can be a guideline for students to be able to live a healthy life so that the heart’s performance is stronger. By implementing the Mediterranean diet, students can maintain heart health and other body health so that they are not susceptible to various diseases due to wrong diet and food intake. The food ingredients used in the Mediterranean diet include olive oil as a provider of fat, fruit, nuts, vegetables, cereals, fish, and meat to taste, low protein dairy products, a little red meat or beef, and processed meat that has been cooked, and sweet foods such as candy, sweets, or pastries, as well as consuming moderate-intensity wine with food. In the Mediterranean diet, some things must be avoided, namely using butter or margarine for frying, consuming large amounts of red meat, eating excessive snacks, and consuming excessive fast food (Nurwijaya, 2018).

Consuming the Mediterranean diet, it has been proven to be able to reduce the incidence of disease in various industrial and non-industrial countries (Anggraini & Labibah, 2016). Therefore, the application of a The Mediterranean diet can be the suitable solution for maintaining heart health. It is known that olive oil as the main source of daily fat intake which can be used when cooking or in salad dressings has the benefit of increasing antioxidant processes and is even thought to function as an anti-inflammatory which can help maintain heart health. A trial showed the results that implementing the Mediterranean diet was proven to be able to reduce the risk of cardiovascular disease, reduce inflammation, and be able to mediate mortality from cardiovascular disease (Anggraini & Labibah, 2016).

The Mediterranean diet can also have beneficial effects on health. The positive impacts are (1) being able to reduce lipid or fat levels and profiles, (2) being able to protect against oxidative stress, inflammation or inflammation, as well as platelet aggregation, (3) being able to change or modify hormones as well as growth factors that capable of influencing the pathogenesis of cancer, (4) having the ability to inhibit nutrients by specifically restricting amino acids, (5) being able to produce metabolites that can be mediated by the microbiota so that they can have an impact on metabolic health (Rejeki & Prasetya, 2021).

In implementing the Mediterranean diet, there are at least a few steps that you must take so that there are no contrasting differences in changes in food patterns. These steps are like starting to eat fruits and vegetables in your daily diet and then gradually increasing the intensity of fruits and vegetables in large portions in your diet. Reduce snacks based on flour and sugar by increasing healthy fruit and nuts snacks. The fruit in question such as apples, bananas, watermelons, dates, oranges, and strawberries. For nuts, you can eat almonds, cashews, peanuts, and green beans. The Mediterranean diet is also healthy, so slowly start reducing foods that contain excessive salt or MSG. This can be changed by increasing the spices in cooking to enhance the taste. Eating whole grains is also the right alternative because it is better for digestion. One thing that is quite important is to minimize fat intake, both trans fat and saturated fat. The use of fat is only obtained from the consumption of olive oil. Milk that contains a lot of fat also began to be reduced. Instead, choose skim or low-fat milk. Consumption of red meat should also be limited because, in this Mediterranean diet, the red meat component is only in moderation.

In essence, heart health can be protected if a person has a good food intake. One of them is by increasing the proportion of fiber-rich foods such as fruits and vegetables. Minimizing the use of salt can also help maintain heart health, especially in ready-to-eat foods. Students must limit themselves so they are not easily tempted by fast food or foods containing MSG. Furthermore, to fulfill a complete food intake, try to also consume fish in small quantities, at least twice a week. Saturated fat is considered not good enough for heart health, so as much as possible minimize the consumption of saturated fat. On the
Mediterranean diet, fat intake can be obtained from olive oil. It is certainly healthier than eating lots of other fatty foods.

Apart from maintaining their diet through the Mediterranean diet, students can also do simple things that can improve heart health. These efforts can be made by reducing smoking habits, even if you are not familiar with smoking, do not ever try to consume cigarettes because it will endanger your health, not only your heart but also your lungs and other body health. In addition, to improve a healthy lifestyle, it must be balanced with regular exercise. Exercise is one of the means to maintain and provide protection so that the heart remains in a healthy condition. When moving, there is an increase in respiratory rate and heart rate so that oxygen levels increase and can supply the needs throughout the body (Pane, 2016; Effendie, 2017). Bad living habits and lack of exercise can provide greater opportunities related to the onset of disease in the body. Therefore, during their free time as a tough young generation, students can carry out physical activities as a means of refreshing and effort to stay healthy. In addition, in the context of sports, there is an exercise that can maintain heart health and improve body fitness, namely healthy heart exercise. With this exercise, students can routinely improve their health so that their hearts are stronger (Kautsar, 2020).

Healthy heart gymnastics is an exercise that functions to improve heart health. This heart exercise can trigger a heartbeat so that the heart's performance increases faster and the body can excrete sweat. The movements contained in heart exercises can improve the function of the heart in pumping blood, can also strengthen the muscles in the heart organs, and can circulate oxygen throughout the body more smoothly. This heart exercise is highly recommended so that someone has good heart health, in addition to eating patterns that already apply to the Mediterranean diet. Besides being able to make the heart healthy, this healthy heart exercise is also allegedly able to maintain ideal body weight, prevent damage to blood vessels, and even minimize the potential for stroke.

Heart disease is a disease that has great potential to cause death in Indonesia and even the world. Therefore, various efforts are needed to maintain heart health. The Mediterranean diet is an alternative diet method that students can apply as an effort to maintain heart health so that productivity increases. By adopting the Mediterranean diet, students have a much smaller potential for heart or cardiovascular disease. Of course, this diet must also be balanced with regular exercise activities as well as avoiding cigarette consumption to have a healthy lifestyle harmony. For this reason, let's have the same passion in realizing a healthy heart for a strong body.
4. Conclusions
This cardiovascular disease often occurs when the heart organ fails in carrying out its function of pumping blood to all parts of the body, resulting in impaired physiological circulation and in the worst case it causes sudden death. Not only that, even in America itself cardiovascular disease due to heart failure is said to be the number one cause of death. This is evidenced by data from case records which show that as many as 5.7 million people suffer from heart failure, nearly 300,000 of them end in death. From these various facts, it can be ascertained that maintaining heart health is a very essential aspect in order to be able to carry out daily activities properly and be able to increase productivity.

The Mediterranean diet can be said to be one of the traditional diet-based eating patterns that used to be often practiced in several European societies, especially in the Mediterranean region. The characteristics of the Mediterranean diet are light preparations such as beans and legumes as a staple food. Mediterranean individuals eat fresh vegetables every day, fresh fruit as a dessert every day, and sweet nuts, olive oil and honey are only consumed at certain celebrations. This Mediterranean diet has the potential to lower plasma cholesterol levels thereby minimizing the incidence of cardiovascular disease and preventing heart disease in people who adopt it. The Mediterranean diet is also considered a dietary model that has a great opportunity to provide protection against coronary heart disease.

By consuming the Mediterranean diet, it has been proven to be able to reduce the incidence of disease in various industrial and non-industrial countries. Therefore, the application of the Mediterranean diet can be the right solution for maintaining heart health. It is known that olive oil as the main source of daily fat intake which can be used when cooking or in salad dressings has the benefit of increasing antioxidant processes and is even thought to function as an anti-inflammatory which can help maintain heart health. A trial showed the results that implementing the Mediterranean diet was proven to be able to reduce the risk of cardiovascular disease, reduce inflammation, and be able to mediate mortality from cardiovascular disease.

The Mediterranean diet can also have beneficial effects on health. The positive impacts are (1) being able to reduce lipid or fat levels and profiles, (2) being able to provide
protection against oxidative stress, inflammation or inflammation, as well as platelet aggregation, (3) being able to change or modify hormones as well as growth factors that capable of influencing cancer pathogenesis, (4) having the ability to inhibit nutrients by specifically restricting amino acids, (5) being able to produce metabolites that can be mediated by the microbiota so that they can have an impact on metabolic health.

**Funding**
This research received no external funding.

**Ethical Review Board Statement**
Not applicable.

**Informed Consent Statement**
Not applicable.

**Data Availability Statement**
Data will be provided by the author by special request.

**Conflicts of Interest**
The authors declare no conflict of interest.

**References**


poor response to ovarian stimulation in IVF cycles. Reproductive BioMedicine Online.
https://doi.org/10.1016/j.rbmo.2023.03.011


