Poor eyesight assignment

Visual images perceived by human have the qualities of resolution, brightness, lour, and depth. 3 with their ability to see clearly thus changes in our eyes occur that can affect our work and enjoyment of life. In social and economical impact of poor eyesight on four categories of people: Children - the impact on health, school performance, and emotional/ social development. Workers-the impact on health, productivity and national performance. Elderly -the impact on well-being, safety and mental health. Car drivers-the impact on road safety and accidents. There are some causes that lead eye damage; Ultraviolet (XIV) light from the sun or from exposure to sun lamps can lead to an eye injury .

Wearing contact lenses incorrectly can also injure your eyes if contact lenses are not clean, do not fit properly or are worn for long periods of time may cause dry eyes, allergic reactions, and eye inflammation. It is also possible for a foreign body, such as a tiny particle of dust or dirt, to become trapped behind and irritate your eye. “ Genetic, relating to or determined by the origin, development, or causal antecedents of something. ” 4 This factor plays a role in many kinds of eye disease, including those diseases that are the leading cause of blindness among infants, children and adults.

Conditions that cause visual impairment have the potential to reduce quality of life for individuals and increase the economic burden to society. Vision loss can result from injuries or from diseases that affect many different parts of the eye, including the cornea, retina and optic nerve. Some of the diseases can be traced to a genetic defect while others stem from complications arising from illnesses, such as diabetes. “ The most common vision problems that may be linked genetically are Myopia

(nearsightedness), Hyperemia (farsightedness), Color blindness or Color vision deficiency and Retinitis

Pigmenting. And the vision problems that may be linked to both genetics and environmental factors are Myopia (lazy eye), Glaucoma, Notably cataract, Strabismus and Age-related muscular. ” 5 . The more we abuse our eyes the more it gets damage because of the different effects that may happen. Our eyes not only affect how you see, but how you feel. Caring for our vision can lead to a better quality of life. Our eyesight impacts your performance at work, school, and home. When your vision health is at its best, you perform better in all aspects of your life. Statement of the Problem:

This study sought to find out the common factors that causes poor eyesight and seeks to identify the effect of it to the daily life of a person. Especially it seeks to answer the following: 1 . In what age/level does eye gets weakened? 3. How do people cure and avoid more damage to an infected eye? 4. What are the possibilities that will happen to a person disregarding having poor eyesight? Significance of the Study: The researchers conducted a study in “ factors that affects human in having a poor eye sight. ” This study may benefit the following: To the Students.

This study may fully help students to know the effects, as well as the actors causing a poor eye sight. This may give them some sufficient knowledge. To the Teachers. This study may give teachers deep information of the common effects of having a poor eye sight, as well as its causes. To the Researchers. This study will help the researchers to understand more of the different causes and effects of having poor eye sight. And in this study there is new

information about this topic that give researchers time to reflect and could correct his wrong misconceptions and apply them to their future.

To the readers. This study will provide information to the readers for them to be knowledgeable on preventing poor eyesight and motivating oneself to care for our eyes. BODY The Eyes and Vision: The human eye gives us the sense of sight, allowing us to observe and learn more about the surrounding world than we do with any of the other four senses. We use our eyes in almost every activity we perform, whether reading, working, watching television, writing a letter, driving a car, and in countless other ways. Most people probably would agree that sight is the sense they value more than all the rest.

Eyes are the organs of vision. They detect light and convert it into electro-chemical eight to movement. In higher organisms the eye is a complex optical system which collects light from the surrounding environment, regulates its intensity through a diaphragm, focuses it through an adjustable assembly of lenses to form an image, converts this image into a set of electrical signals, and transmits these signals to the brain through complex neural pathways that connect the eye via the optic nerve to the visual cortex and other areas of the brain.

Eyes with resolving power have come in ten fundamentally different forms, and 96% of animal species possess a complex optical system. “ 6 Vision-the special sense by which the qualities of an object (as color, luminosity, shape, and size) constituting its appearance are perceived through a process in which light rays entering the eye are transformed by the retina into electrical

signals that are transmitted to the brain via the optic nerve. “ 7 Many people consider vision the most important senses because it allows them to interact freely with their environment and enjoy the beauty of life around them.

Vision relies on a variety of positioning and focusing mechanism to form image in the correct spot on the light-sensitive receptor cells inside the eye. Normal Vision “ Normal vision is being able to see a certain size line on the eye chart from 20 feet away. If you have 20/20 vision, you can see clearly at 20 feet what should normally be seen at that distance. If you have 20/40 vision, it means that you must be as close as 20 feet to see what a person with normal vision can see at 40 feet.

So, the first number refers to the distance you stand from the chart, and the second number is the distance a person with normal vision could read the same line you correctly read – the larger the second number, the worse the vision. “ 8 The Snell Chart Vision problem: As you look at objects, light bounces off of them and enters your eye through your cornea and lens. When everything is working perfectly, the cornea and lens work together to bend the light so that it forms a focused picture on the retina at the back of your eye.

As your eye shifts attention between near and distant objects, the lens of your eye changes shape to re-focus the picture on your retina. When it is relaxed, the lens is the right shape to focus on distant objects. When the eye is focused on a near object, the muscles of the eye push on the lens to change its shape so that a clear picture of he near object is formed on the retina. Sometimes, however, the parts of the eye aren’t quite the right shape

or don’t work together perfectly, which can cause images Nearsightedness, farsightedness, astigmatism and presbyters are all types of refractive errors.

Another common vision problem, cataracts, actually affects the lens of the eye. Contrary to popular belief, cataracts are not a cloudy film that forms over the eye. A cataract is simply a clouding of the natural lens of the eye- over time, the lens itself becomes more and more cloudy and discovered. 9 Sense of sight: “ The eye is essentially a hollow ball. There are three main layers that lie against each other to form the eyeball: the outer fibrous layer, the middle vascular layer and the inner neural layer. The eyeball is protected by the conjunctiva, a thin layer that covers the inner surface of the eyelid and outer surface of the eye.

The outer layer of the eyeball consists of the sclera and cornea. The sclera, or white of the eye, is made of a tough tissue that connects with the cornea, which is the transparent bulge covering the colored iris and black pupil at the centre of the eye. The border between the sclera and the cornea is called the limbos. The middle layer of the eyeball, or choroids, houses the blood vessels, lymphatic vessels, iris, and culinary body. This layer regulates the amount of light entering the eye, maintains the aqueous humor and controls the shape of the lens, located Just behind the iris.

The lens focuses visual images on the retina, which is the inner neural layer of the eyeball. The retina is the crucial light sensing part of the eye that conveys visual information to the brain. Beginning as the thin ring around the iris, the retina lines the inner curvature of the eyeball, and exits the eye as the optic nerve. Three fluid-filled chambers stabilize the eye and give it its

shape. The anterior chamber (front) is the space between the cornea and the iris, and the posterior chamber (back) is between the iris and the lens. These chambers contain a watery liquid called the aqueous humor, produced by the culinary body.

The vitreous is largest chamber in the eye and it is filled with a glassy gel-like substance that fills the space between the lens and the back of the eye. The outer layer of the retina consists of the retinal pigmented epithelium (REP) which images, and blood vessels that supply the eye with nutrients. Multiple layers of reruns in the retina relay light information from one to the other. Just underneath the REP lies the first layer of neurons, millions of photoreceptor’s called rods and cones that sense light intensity or color, respectively.

The rods and cones are not evenly distributed throughout the retina. Instead, the rods are concentrated around the periphery while the cones are mostly at the back, concentrated in a small region called the Macaulay where rods are totally absent. The central portion of the Macaulay is called the fovea, housing the highest concentration of cones and providing us with the sharpest sense of sight. The rods and cones in the retina transmit visual signals to neurons called bipolar cells that in turn pass the information to retinal ganglion cells whose nerve endings merge to become the optic nerve.

Support cells called horizontal cells help facilitate the communications between photoreceptor’s and bipolar cells while machine cells control communications between the bipolar cells and the retinal ganglion cells. Support cells called Mueller gala and actresses are also present in the retina.

When we look at an object, light travels through the cornea and the pupil and is focused by the lens through the vitreous onto the back of the retina. The retina translates the light information to the brain, the last link in the neural network, which processes the information into images that allow us to visualize the world around us.

Damage to any of the layers of the retina can have a profound effect on vision. ” 10 Anatomy and Physiology of the eyes: Three tunics of the eye: 1. Fibrous tunic The outer coat of the eye. The cornea is the anterior, transparent portion. The sclera is the white, fibrous portion. 2. Vascular tunic The middle coat of the eye. The posterior culinary body, in which are incorporated the culinary muscles. The culinary muscles are attached to the rim of the lens by means of suspensor ligaments. Attached to the interior edge of the culinary body is the colored iris, which has an opening, called the pupil. . Nervous tunic The inner coat of the eye. The retina is divided into two lays; the outer pigmented retina and the inner sensory retina. The sensory retina contains photoreceptor cells of two types, rods and cones, as well as association neurons. In the posterior retina is a small, yellow Macaulay elute with a pit called the fovea contrails. The fovea is normally the center of the visual field and contains many cones. Rods become more dominate farther away from the fovea. Medial to the Macaulay elute is the white optic disc.

Blood vessels, as well as the nerve fibers that exit as the optic nerve, pass out of the eyeball. Compartments of the eye: 1 . Anterior compartment The anterior cavity, filled with aqueous humor, a watery filtrate produced by the culinary body. Aqueous humor circulates from the posterior chamber behind the iris, through the pupil, to the anterior chamber, where it is reabsorbed. 2.

Posterior compartment The posterior cavity, filled with transparent, Jelly like vitreous humor. This cavity is posterior to the lens. 1 Parts of the eye The human eye is a complex optic instrument.

Its main goal is to " transfer" the correct image to the optic nerve. 1. Cornea is a transparent coat covering the front part of the eye. It has no blood vessels, but its refraction is great. It is part of the eye optic. Cornea borders sclera which is a non-transparent eye coat. 2. Anterior chamber is a space between cornea and iris. It is filled with intra-ocular fluid. 3. Iris looks like a circle with an opening in the middle (pupil). Iris consists of muscles that change pupil size by constricting and relaxing. IT is a part of the eye choroids.

Iris is responsible for the color of the eyes (if it is blue this means it contains few pigment cell, if brown – a lot). Its function is same as of aperture in a camera – to adjust light flow. 4. Pupil is an aperture in iris. Its size usually depends on the illumination level. The more light the smaller the pupil. 5. Crystalline lens is the eye " natural lenses. It is transparent, elastic – can change its shape, focusing in almost instantly, therefore one can see well both near and far. It is located in a capsule and is withheld by culinary zone. The crystalline lens like cornea is a part of the eye optic. Vitreous body is a gel-like transparent substance located in the posterior part of the eye. The vitreous body supports the sphere of the eye ball and is part of the intraocular metabolism. It is a part of the optic system. 7. Retina consists of photoreceptor's (light sensing) and nerve (ganglion) cells. There are two types of receptor (transducer) cells in retina: cones and rods. These cells producing Rhodesia enzyme transform light energy (photons) into electric

energy of neural tissue. Rods have high light sensitivity and allow seeing in poor light, they are also responsible for periphery vision.

Cones adversely need plenty of light for functioning but allow distinguishing small details located in Macaulay which is responsible for the sharpest vision. Retina adjoins choroids but not too snug in some areas. It is here that it may detach under various retina diseases. 8. Sclera is the non-transparent outer coat of the eye bulb and in the frontal part of the eye it verges into the transparent cornea. 6 eye moving muscles are attached to it. It contains a few nerve terminals and vessels. 9. Choroids inlays the back part of sclera, it adjoins retina and is closely linked to it.

Choroids is responsible for blood supply of intraocular structures. And with retina disorders it is usually involved in the pathology process. Choroids has no nerve terminals therefore when there is a trouble there; there is no pain which usually alarms about a problem. 10. Optic nerve – transfers signals from nerve terminals to the brain. 12 Function: “ The eye is the organ that works with the brain to provide us with the sense of sight. It works much like a camera. The main function of the eye is to collect light and turn it into electric signals, which are sent to the brain.

The brain then turns those signals into a visual image or picture for us to see. We have 2 eyes, so 2 pictures are usually reared. If we lose the vision in one eye, we continue to see most of what we could see before. When light enters the eye, it first passes through the cornea. The light then passes through the pupil, where the iris adjusts the amount of light entering the eye. The light then passes through the lens of the eye. The lens focuses light

rays onto the retina, where it is changed into a signal that is transmitted to the brain by the optic nerve. The signal is received and interpreted by the brain as a visual image. 13 Signs and Symptoms: Knowledge of the causes of common eye symptoms is important because these homonyms are the way in which eye seeks help. Some symptoms are very dangerous and require prompt evaluation; others are begin but annoying. Bad eyesight can affect adults and children for a variety of reasons including medical condition such as injury to the eye. More commonly, age or eye stress result in vision changes, making it more difficult to perform everyday activities such as reading or staring at a computer screen for long periods. Common signs and symptoms of these types of vision problems include: 1.

Fatigue “ Fatigue is a feeling of extreme physical or mental tiredness, temporary loss of trench and energy, lessening in one’s response to or enthusiasm for something and weakness in metal or other materials caused by repeated variations of stress. ” 14 Falling sleep after supper is commonly and erroneously blamed upon refractive error. So, the reading of homework assignments or other uninteresting subject matter may rapidly bores student, particularly if distracting thoughts or emotions compete for attention. After prolonged use even the healthiest eye and mind will ultimately fatigue. The symptoms of fatigue does not indicate presence of serious ye diseases; nor does not prolonged use of eyes even under circumstances, induce eye disease. “ 1 5 Watering of the eye is usually caused by excessive tear production. Crying from emotional causes is familiar to everyone. The irritation of a cinder or other foreign body in the eye causes a flow of tears intended by nature to wash away the offending

particle. The watery eye and running nose associated with the common cold and allergy are well known. “ Blockage of neoclassical duct predisposes the eye and lachrymal sac to the development of surface infections. 16 3. Itching “ This classic sign of ocular allergy is itching. Chronic lid infection is more likely to cause irritation than itching. “ 17 4. Diploma “ A disorder of vision if which two images of a single object are seen(as from unequal action of the eye muscles)–called also double vision. “ 18 Double vision almost always indicates that both eyes are not pointing at the same object. As a result, the eyes look in different directions and do not focus simultaneously on a single point. 5. Headache This complaint presents a serious problem that must determine with reasonable accuracy of the cause of pain. Ache behind the eyes is a common problem among many. However, people complain of main only behind one eye. These headaches are characterized by a throbbing sensation that suddenly starts behind the eye and makes its way through, to the head. Commonly referred to as cluster headaches as they continue for a few hours or even a day. This being the most prominent cause, there are other causes as well that lead to a simmering ache behind the eye. “ 19 6. Burning and Irritation Burning and irritation of the eyes are very annoying complaints, these two symptoms are not characteristic of serious eye disease. Chronic infection of the lid margin or conjunctiva is a frequent cause of burning and irritation. 20 excessive exposure to smoke, dust, or wind may be responsible. Prolonged use of eyes and fatigue may cause mild irritation. Cold compress will usually relieve burning and irritation quite rapidly. Such treatment is preferable to self-medication with the types of eye drops available without prescription. 7. Foreign Body Sensation Began suddenly

and particularly if the person is reasonably sure that something entered or stuck the eye.

Removal of Foreign bodies that can be found upon the conjunctiva may be done b y properly trained personnel but foreign bodies embedded in the cornea should be removed by a physician. Spontaneous blinking and tearing usually move the lash away from the eye, or the lash may be easily removed with a clean tissue. 8. Photograph “ An abnormal sensitivity to or intolerance of light, especially by the eyes, as may be “ sensitivity of light is a non specific symptom accompanying many type of ocular irritation and inflammation.

Since serious conditions such as rites cause photograph, the abrupt appearance of severe and persistent intolerance to light should cause suspicion of eye disease. ” Dark glasses effectively shield sensitive eyes from excess light. But, if a person has sufficient refractive error to require the earning of corrective lenses, it requires a prescription correction in his dark glasses. Dark glasses may be used freely and safely as desired for comfort. 9. Floaters Small moving spots that seem to drift about in front of the eye, are very common causes of complaints.

Such spots represent shadows cast upon the retina. “ Floaters may be caused by development remnants, hemorrhage, inflammation, or degeneration. “ 23 Preventions: Through our eyes, we experience moments every day, both big and small that bring us happiness. However, vision may begin to fail-? but you can take steps now to protect our sight for years to come. Vision problems can be prevented and corrected naturally if you know

how to take care of them. The basic understanding to have healthy eyesight or to restore poor eyesight is to follow good habit, life style and healthy diet.

Regular eye checkups from an ophthalmologist or optometrist are important. They should be done once a year if you are over age 65. Some experts recommend annual eye exams starting at an earlier age. These important steps can prevent eye and vision problems: Wear sunglasses to protect your eyes. We must protect our eyes from the direct ray of the sun. Wear safety glasses when hammering, grinding, or using power lolls.. Wear safety glasses, goggles, or face shields when working with power tools or chemicals or doing any activity that might cause an object or substance to get into your eyes.

Don’t smoke and limit how much alcohol you drink. Stay at a healthy weight. Keep your blood pressure and cholesterol under control. Keep your blood sugar under control if you have diabetes. Eat foods rich in antioxidants, like green leafy vegetables. Eat a lot amount of fruit. Fruits like blueberries and strawberry are rich with antioxidant. A study has shown that people who ate sufficient amount of such fruits were at low risk of ARMED (age- elated muscular degeneration) which may lead to blindness.

Eat a lot of bilberries. By eating a lot of bilberries you can sharpen your vision. Bilberries are considered to have high level of antioxidants and contain mountainsides that can help reducing eye deterioration. Eat a lot of vegetables and fish. Green vegetables are very important to be included in your daily menu. Research found that nutrients in spinach may prevent

ARMED and cataracts. Spinach and other green veggies are excellent if combined with olive oil for easy absorption. Another nutritious food that