

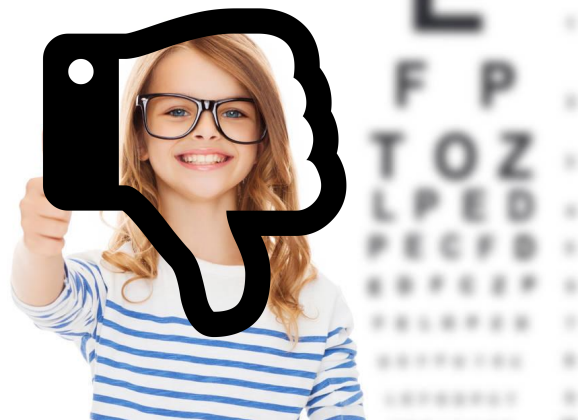
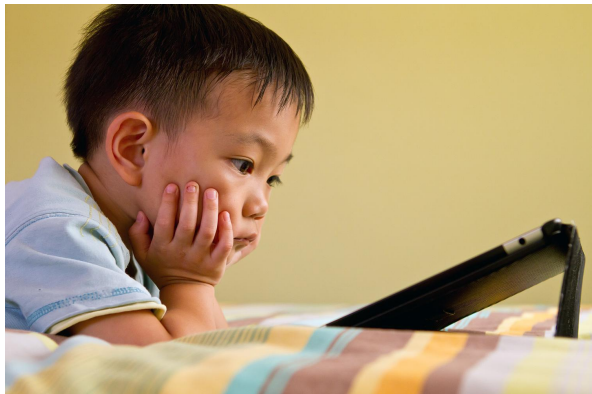


Health Near-sightedness

Needfinding

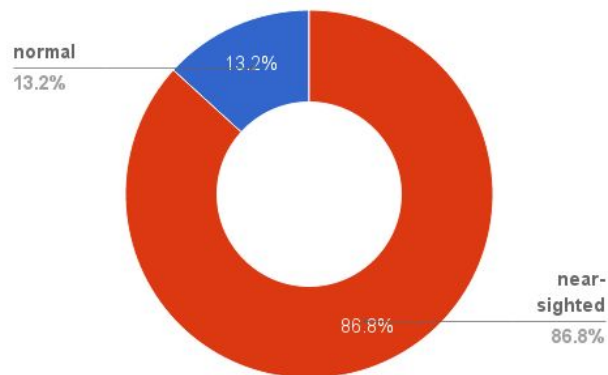
承洋、際禎、凱捷、George、Wei Yang

Problem Domain

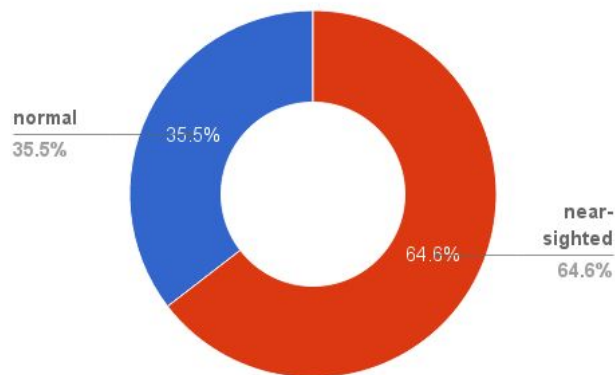


Scientific Data

2014 High-school student near-sighted rate



2014 six grader in elementary school near-sighted rate

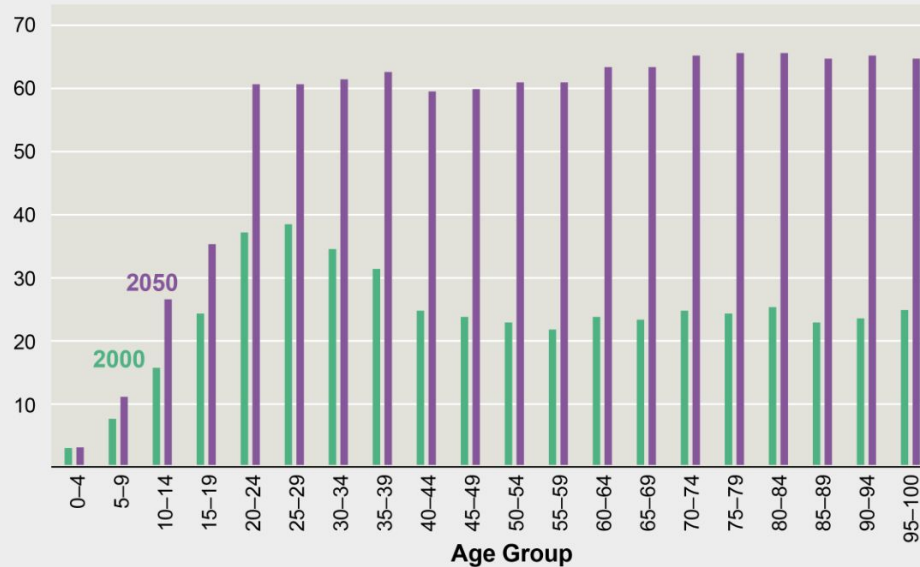


Data Provided By Taiwan Ministry of Education

Reference: <<https://stats.moe.gov.tw/>>

Scientific Data

Pattern of Myopia Prevalence by Age Group Is Expected to Shift Dramatically by 2050
(percent of total)

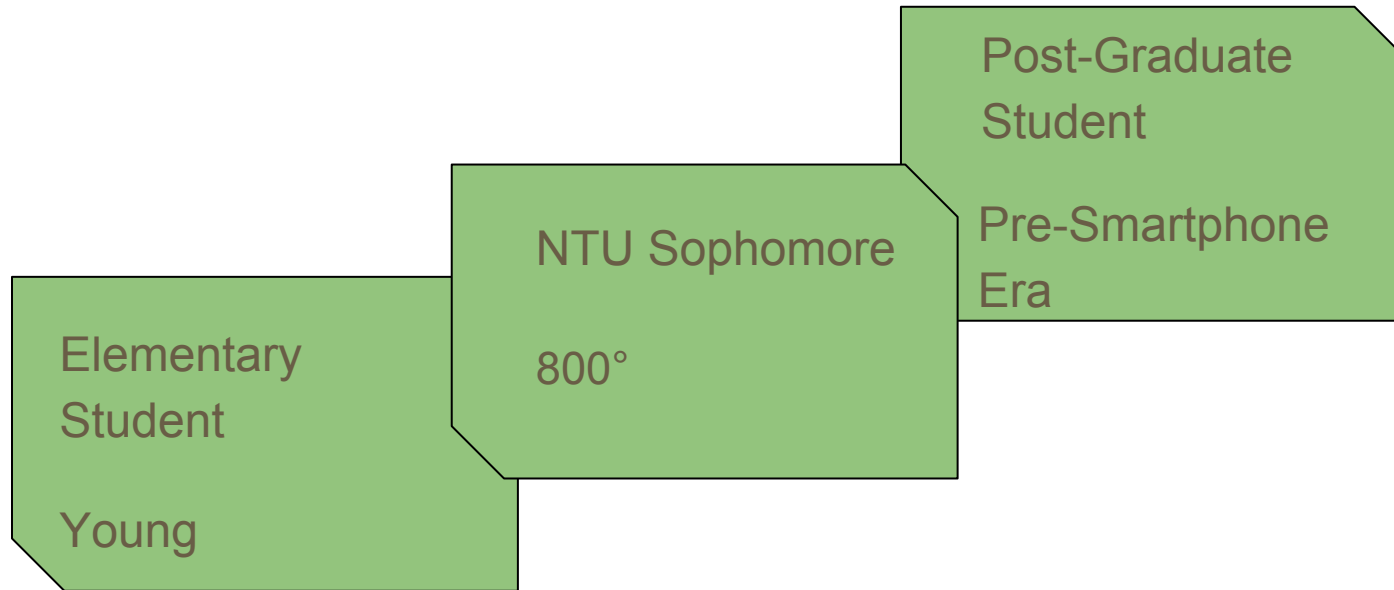


Half the World Could Be Nearsighted by 2050

- By Scientific American

Reference: <<http://www.scientificamerican.com/article/half-the-world-could-be-nearsighted-by-2050/>>

Methodology



Methodology

Interview Questions:

An orange speech bubble with a black outline, containing the word 'Habits' in black text.

Habits

- time spent on reading, using electronics ... etc

An orange speech bubble with a black outline, containing the word 'Preventions' in black text.

Preventions

- actions taken to improve eyesight

An orange speech bubble with a black outline, containing the word 'Problems' in black text.

Problems

- problems with short-sightedness

Postgraduate Student

"I did not maintain my distance reading books when I was young, so that is why I got my short-sightedness"



College Sophomore

- Watch lots of TV non-stop
- Do not play outside often
- Take lutein to improve eye health



A class of Elementary Student

- Read in bed
- Spend hours watching TV and using electronics daily
- Identify problem at 150°
 - Unaware before
- Take lutein to improve eye health



Empathy Map

Say

Short-sighted since young

Good eyesight is important

800° short sightedness

Best time to prevent short-sightedness is when young

Worsened a lot during puberty; stabilised afterwards

Bad habits lead to bad eye health

Think

Caused by reading a lot

Rest could help

Did not think much about eye health when young

Watching lots of TVs harms eyes

Short sightedness is difficult to cure

Best solution is prevention when young

Do

Not maintain distance when reading

Watch TV, use electronics for 1+ hours

Only remove glasses to rest when tired

Rarely go outside

Get new glasses every year

Wears glasses all day except sleep

Take lutein

Feel

Difficult to maintain good distance

Maintaining distance is key

Looks at short-sightedness from objective point of view

Inconvenient

Got used to shortsightedness

Do not feel eyesight deteriorating

Not enough preventions done

Contradictions

“Distance is key”

“Bad habits lead to bad eyesight”

“Rest could help”

VS

- Read closely under bad lights
- Difficult to maintain good posture; forget all the time
- Rarely go outside to play

Insights and Needs

Long hours of eye strain with little/no rest

Spend insufficient time outdoor

Unaware of eyesight worsening

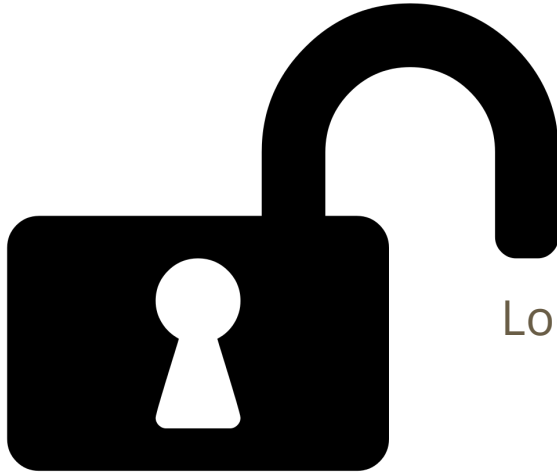
Willing to take actions; but too late

Detect brightness and distance; recommend the optimal setting

Remind user when looking at devices/books for too long; suggest pause for relaxation

Encourage user to go outside and look far into the distance

Summary



Lock the phone, unlock the door