



DICE

Developing Innovation
and Creativity in Education



Co-funded by the
Erasmus+ Programme
of the European Union

Visual Thinking Lab

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Introduction to Visual thinking

What is Visual Thinking and
why is it important to use?



What is Visual Thinking?



“Are you a
visual thinker?”



THE BACK OF THE NAPKIN

SOLVING PROBLEMS AND SELLING IDEAS
WITH PICTURES



DAN ROAM



“Graham Shaw: Why people believe they can’t draw”



“Why we need
visual thinking in
teaching?”



Storyboards



READING 2 Magazine Article

Active Reading
UNDERLINE & give her father

Target resource

Working Together
U.S. teens do farm labor alongside their... Half of these families earn less than \$10,000... others, fathers, and children must all work to...
...teen-year-old Jessica Roman works with her... and brothers. She picks blueberries all day long... hauling work. But she gives half of her wages... father. The money helps pay the family's bills...
...Flores works with his parents, two sisters, and... eight brothers. "I feel proud to make money to help support my family," James says.
"Many migrant children help feed and clothe the family," says Jeanne Carr. She works for a group that helps migrant families. Workers get paid by the amount they pick, Carr explains. "If their kids help, it means more hands picking."

A Better Life
What can be done to help young... The...
...ers many... such... ing and...
...s one of 620,000 young people in the...
...e goes to classes four nights a week...
...because I want to learn English," he says...
...better life."

Summary
In order to help... the... level of...
"Farmers Work"

Handwritten notes:
- A family of four with a child, labeled "WORK!"
- A stick figure with "Hired" written next to it.
- A thought bubble containing "I get paid so much so I can help my family."

Sometimes James carries 50 pounds of cucumbers at a time. "The weight is heavy," says the 14-year-old. "It's hard to take. But the hardest part is not my farm. I'd rather be playing than working."

Crossing the Border
Many teens come from other countries to find work in the U.S. Why? They want to help their families back home. In their home countries, they earn barely enough to get by.
Many of these workers come here legally, but some cross our borders illegally. Seventeen-year-old Rodrigo Perez comes here illegally. He is from Guatemala. He works on a farm in Massachusetts. To get to his job, Rodrigo has to travel over 2,000 miles.
Rodrigo works hard at his job, but he earns less than the minimum wage. He doesn't even get the money for himself. He sends most of his earnings to Guatemala. "I send money to help my family," he says.
Rodrigo isn't alone. Between 60 and 80 million migrant workers are from other countries. These workers send millions of dollars home to America and the Caribbean.

Handwritten notes:
- A stick figure carrying a bag, with a thought bubble saying "this is heavy".
- A speech bubble containing "USA = \$\$\$".
- A diagram showing "USA = \$\$\$" with an arrow pointing to a thought bubble containing "Guatemala".

Source:

Carrie Baughcum

Visual notetaking



Date _____ Name _____

THE LEGISLATIVE BRANCH

Powers of Congress

(See Article I, Section 8)

The Constitution gives the Congress (the House and the Senate) certain specific powers. Among those listed in Section 8 are the powers to tax, borrow money, regulate commerce (trade), and naturalization (the process by which one can become a United States citizen). Also included are the powers to coin money, establish a system of weights and measurements, establish a post office, declare war, and provide a military. These are many of the important powers specifically granted to the Congress.

Article I, Section 8, Clause 18 is very important to the Congress. It is known as the "elastic clause." The elastic clause gives Congress the power to "make all laws which shall be necessary and proper" to carry out its responsibilities.


The powers given to Congress can be broken down into three areas: enumerated powers, implied powers, and inherent powers.

Enumerated powers are powers specifically given to the Congress by the Constitution. They are written. An example would be the power to declare war.

Implied powers are powers given to the Congress that are general. They are not stated, but not enough information is given in the Constitution about details. An example would be: the Constitution in Article I, Section 8, Clause 7 states, "To establish post offices and post roads." Obviously, more is needed to run the post office than just roads; there are the mail carriers, security, and buildings. The Constitution says the Congress will take care of these matters, too.

Inherent powers are unlisted powers that a government must have simply because it is a government and needs to run its affairs smoothly. The best example of this is the need to conduct foreign affairs. The Constitution does not discuss foreign affairs, but because the United States is a country, we must deal with foreign countries diplomatically.


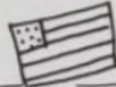
Congress is responsible for maintaining the military forces in the United States.



Handwritten notes:

- POWERS of Congress
- POST OFFICE
- MAKE LAWS
- DECLARE WAR
- PROVIDE MILITARY
- MAKE MONEY (\$)

WWII SOLDIERS



✓ TAPED DOG TAGS TOGETHER

• SOLDIERS WANTED TO BE SNEAKY

- DREW ON JACKETS
- PAINTED FACES
- WANTED TO GET READY TO FIGHT AND SHOW PRIDE
- SHAVED THEIR HEADS BEFORE FIGHTING
- EACH SOLDIER HAD THEIR OWN JOB
- 5.1 MILLION SOLDIERS WILL FIGHT.
- SOLDIERS WROTE LETTERS TO THEIR FAMILY IN CASE THEY DIED
- SOLDIERS REPORT THEY ARE AFRAID TO DIE
- 1,000 WILL DIE ON FIRST DAY OF D-DAY
- 70,000 TROOPS IN VADE FRANCE ON D-DAY
- AMERICAN SOLDIERS INVADE EUROPE
- FRANCE ON D-DAY
- HITLER IS A CLEAR ENEMY

Handwritten notes and drawings:

- LET'S DO THIS!
- THAT'S A LOT!
- PEARL HARBOR
- FRANCE ON D-DAY
- HITLER IS A CLEAR ENEMY

Source:

Carrie Baughcum

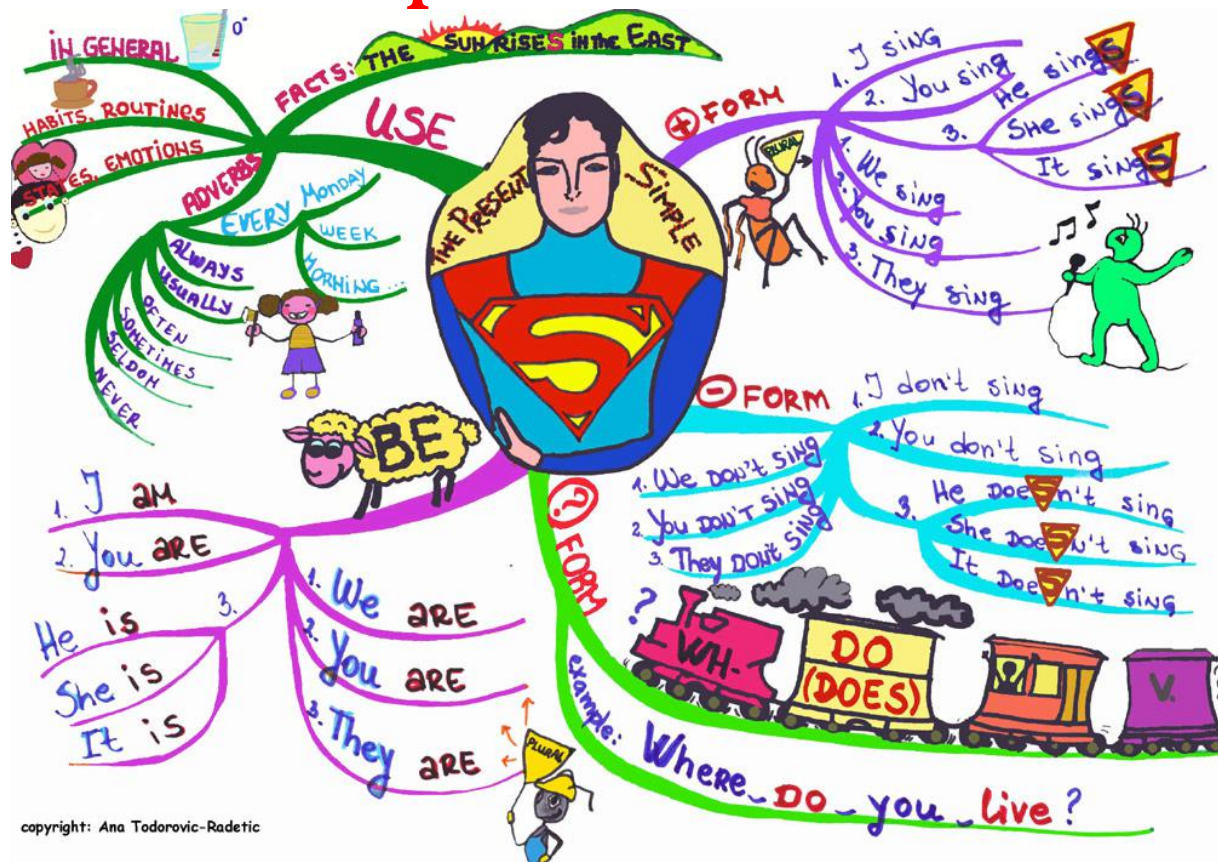
Visual notetaking



Source:

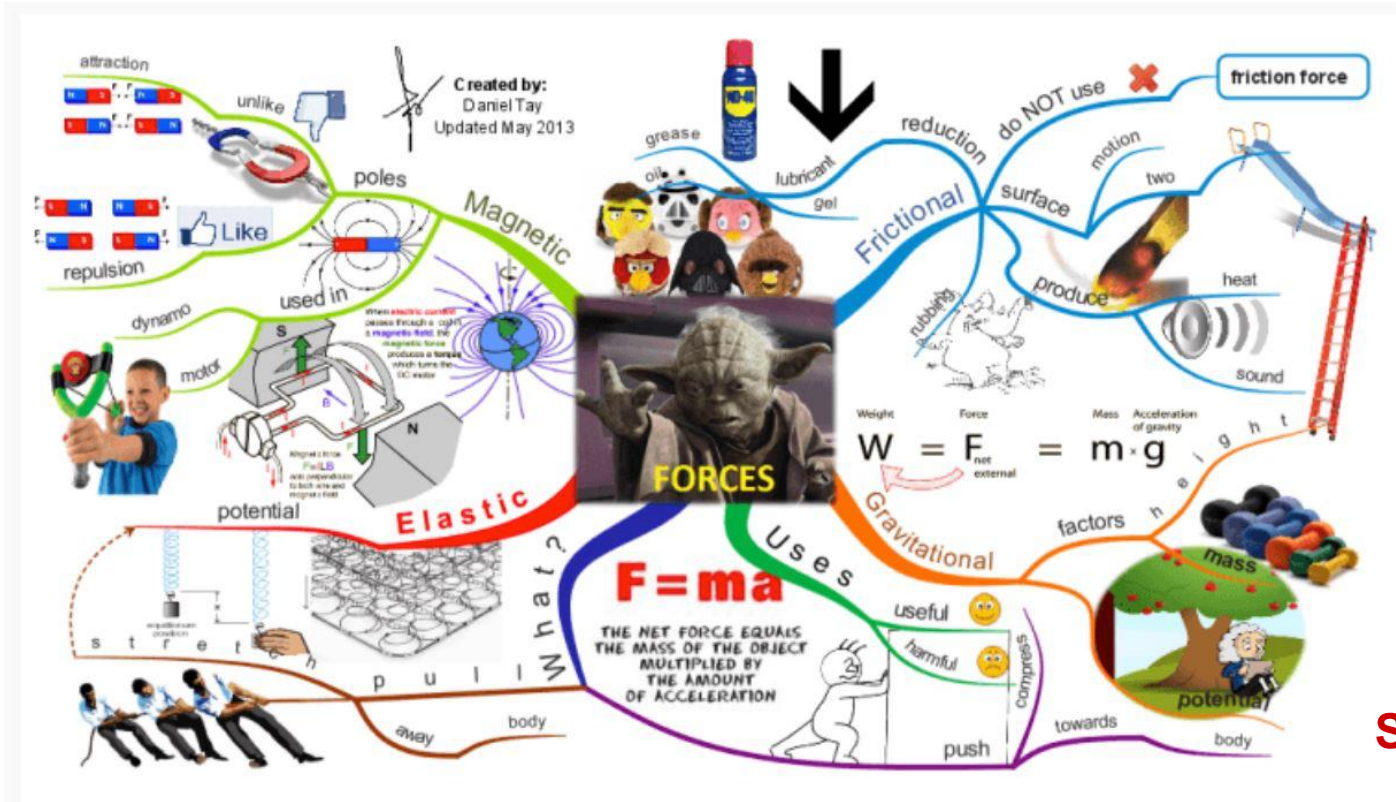
Carrie Baughcum

Mind map



Source:
Grammar mind maps

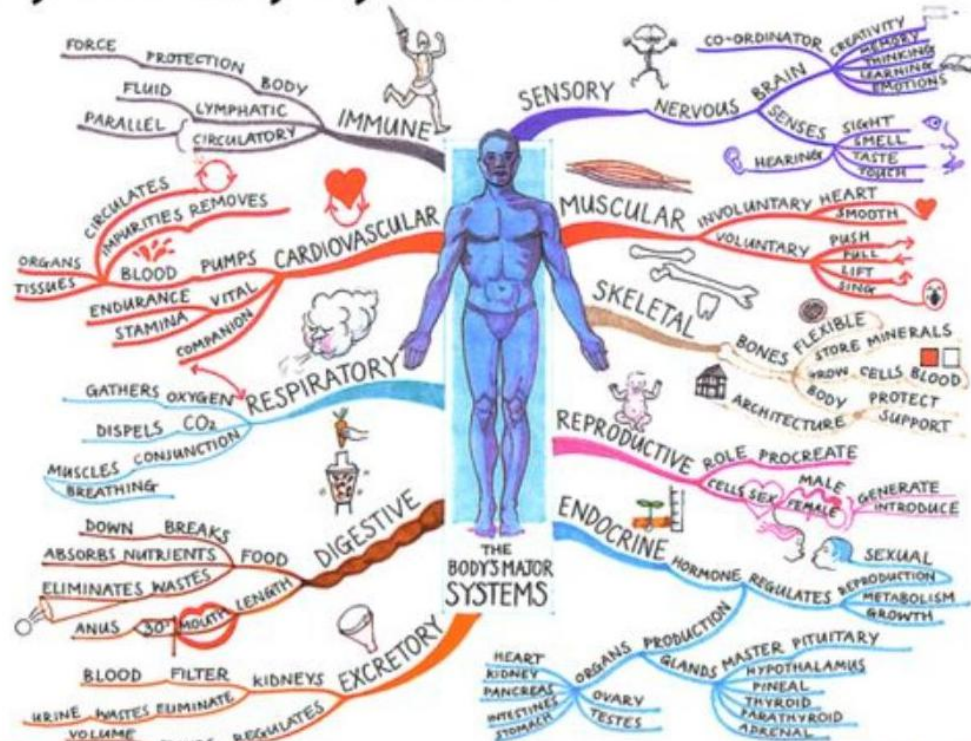
Mind map



Source: [iMindMap](#)

Mind map

Study of Body Systems



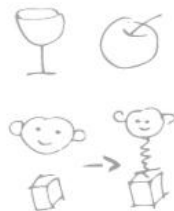
**Now, let's learn
how to sketch...**



VISUAL ALPHABET



combine it into drawings:



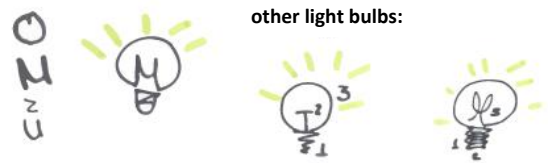
NOI bike



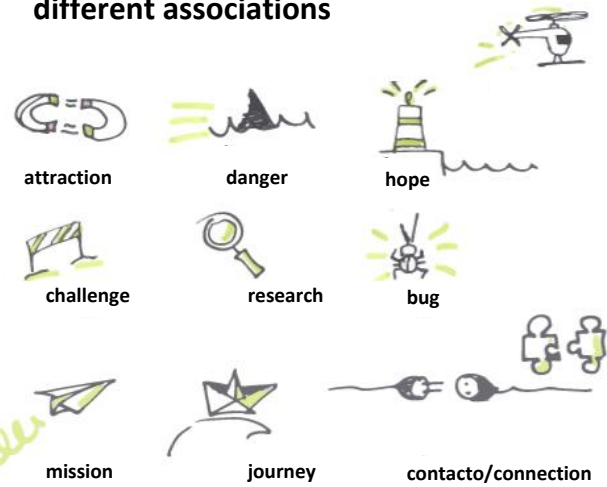
books, calendars, schedules



UZMO lightbulb



different associations



coffee & lunch breaks



STAR PEOPLE



CARD PEOPLE



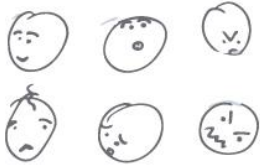
SPRING PEOPLE



groups of people



facial expressions



ways to indicate direction:



shadows



elements of clothing



feet

body language



proud



sad



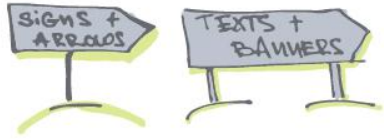
crying



workload



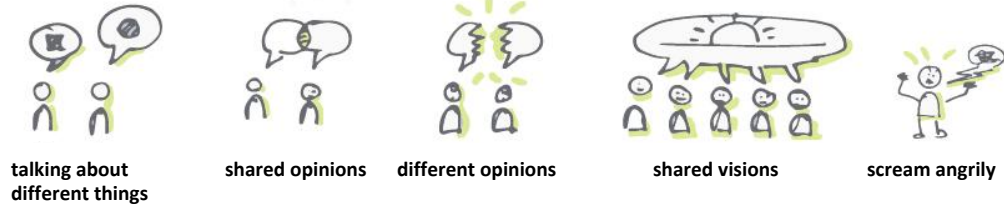
victorious



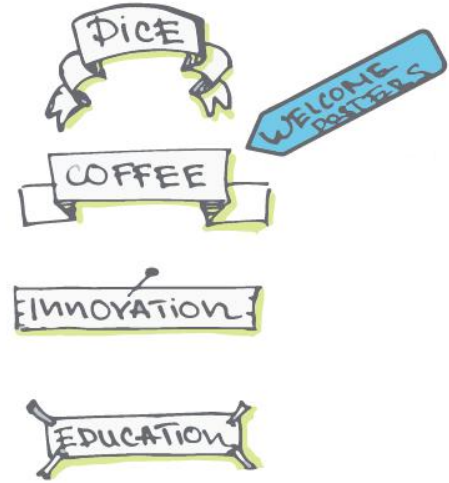
speech bubbles



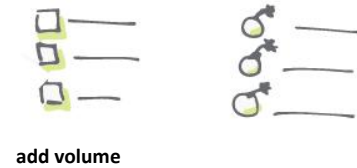
add more information



banners

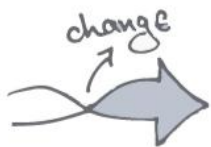


thick boxes



add volume

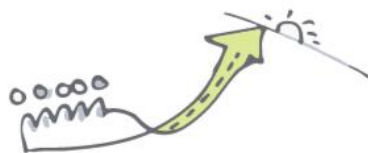
arrows



change



slight deviation from plan



group mission

frames for posters



text



Text A Text Aa

experiment with line distance in order to get different styles of typefaces

CHAOS THICK HIGH HIGH & TIGHT



add visual meaning to the words you write

OUTLINE



innovation

FOCUS

don't draw shapes for a nice stencil work

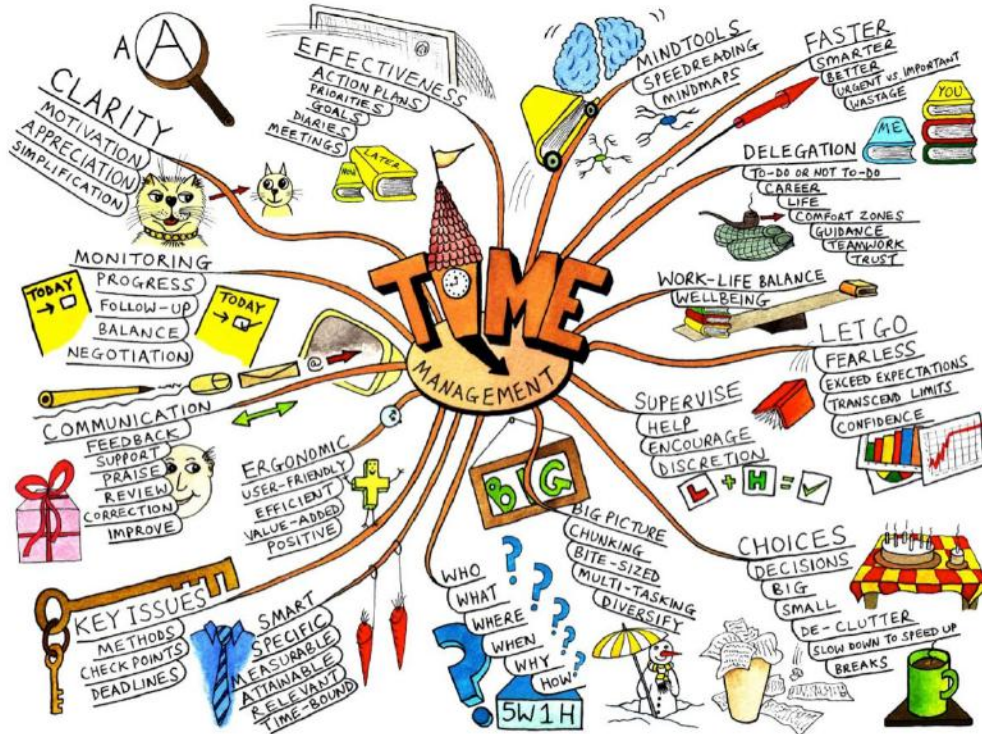
playful keywords

Visual thinking TOOLS



Mind Map

Invented by Tony Buzan







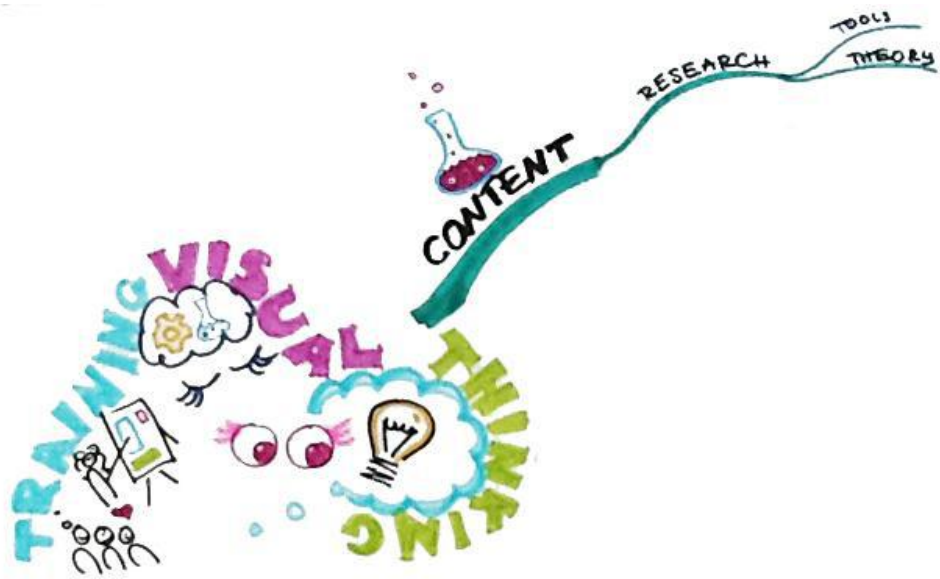
CONTENT

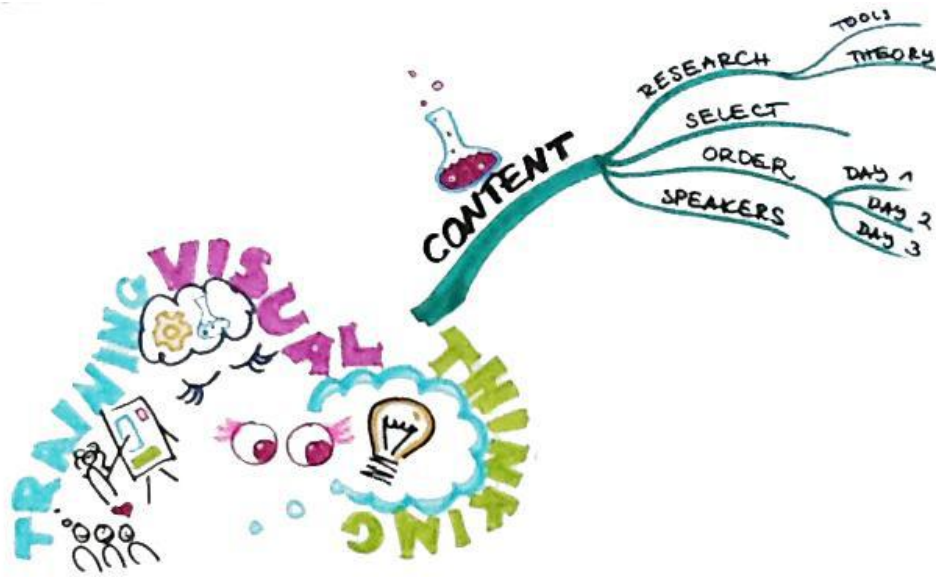


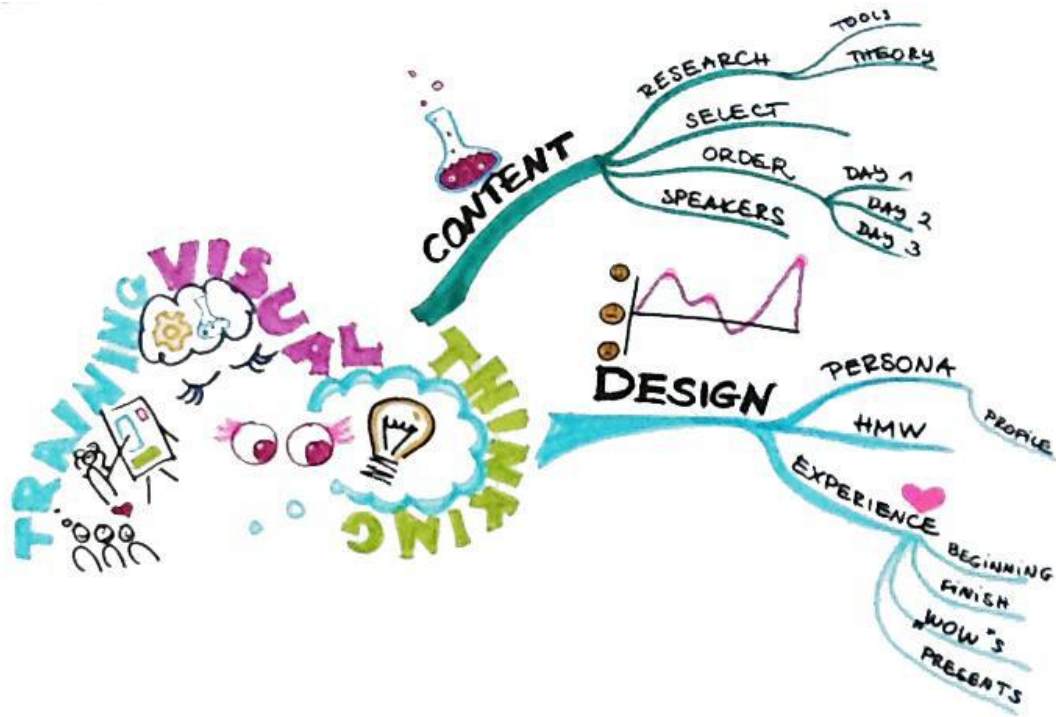




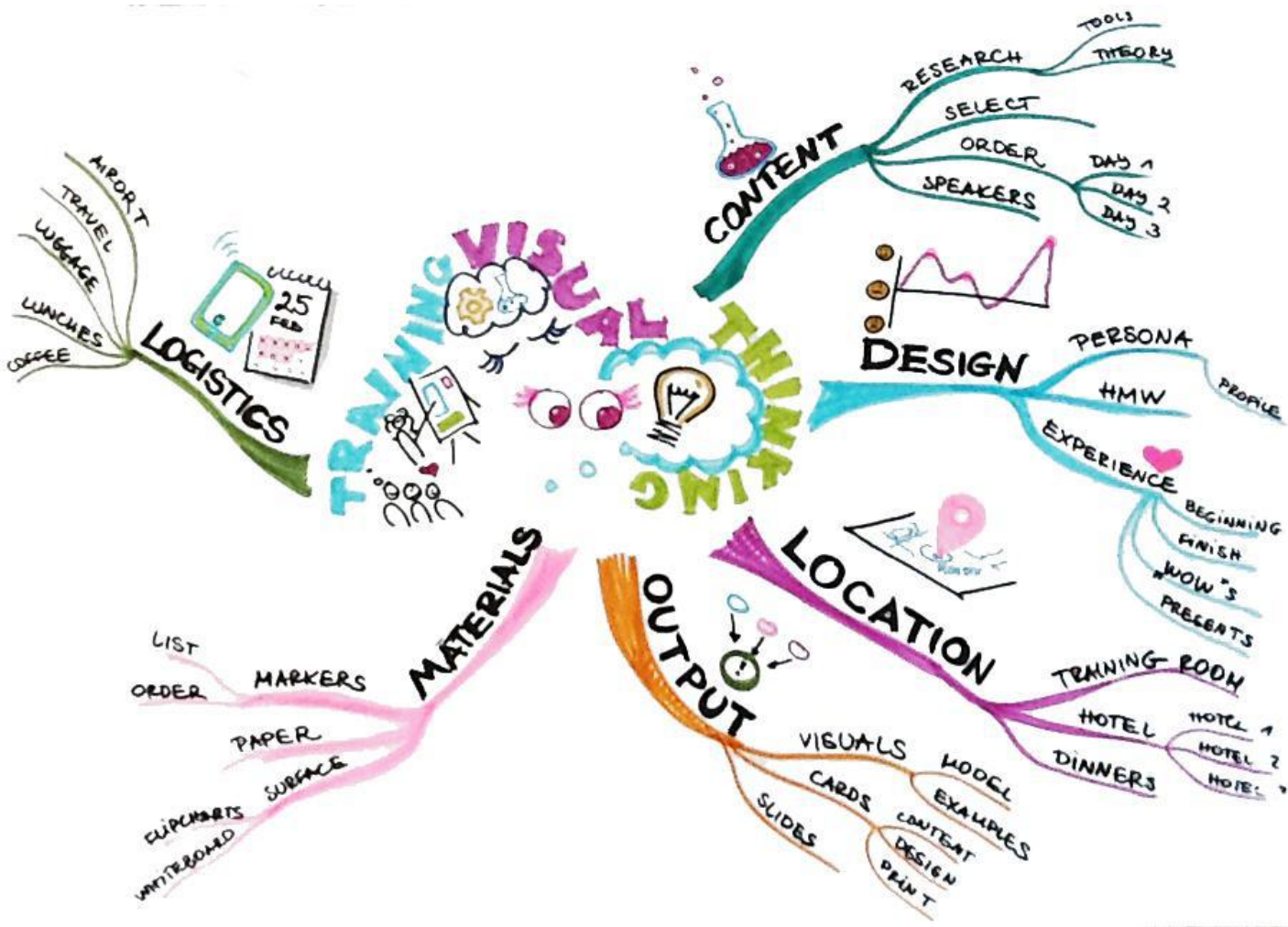


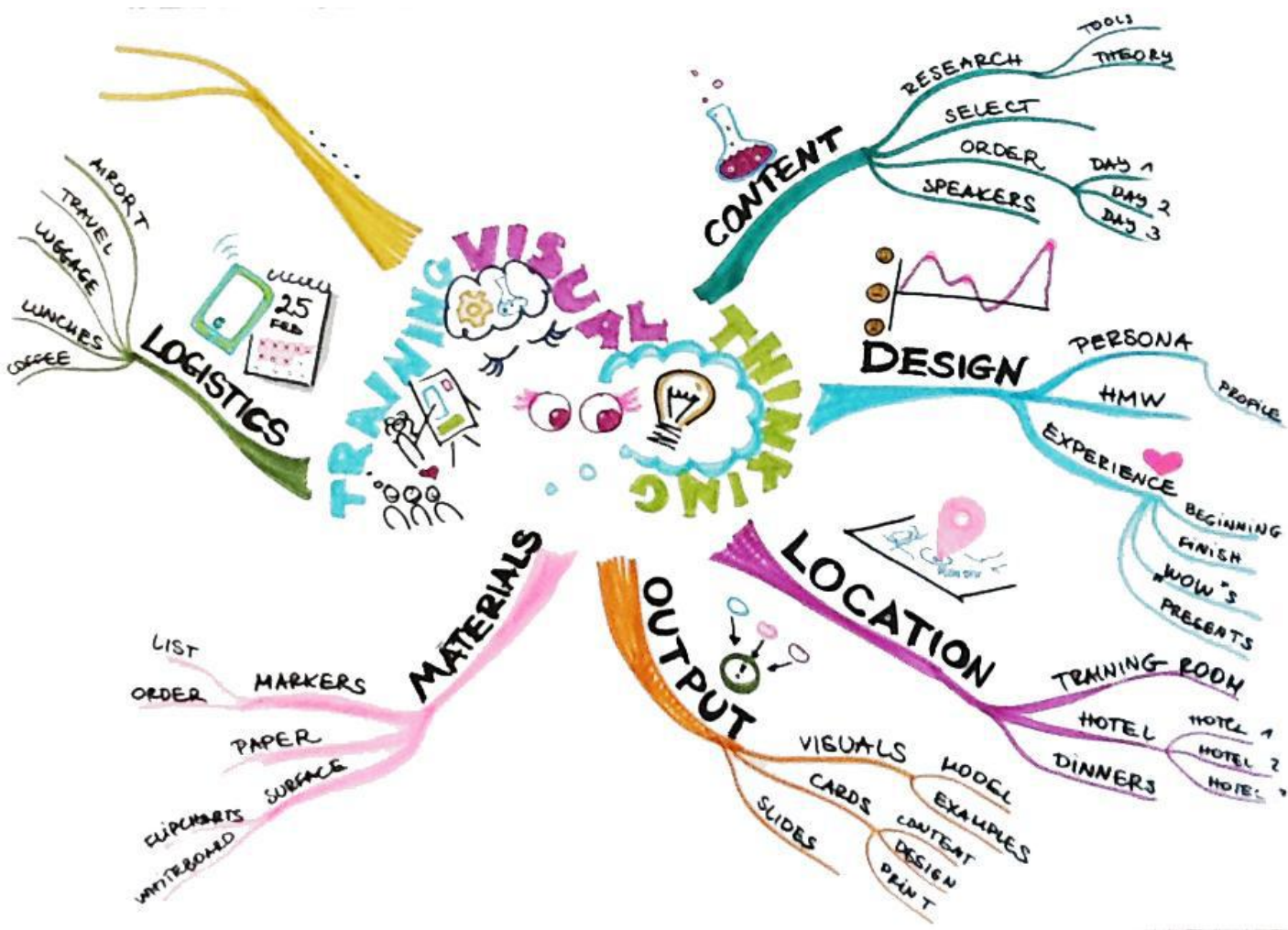






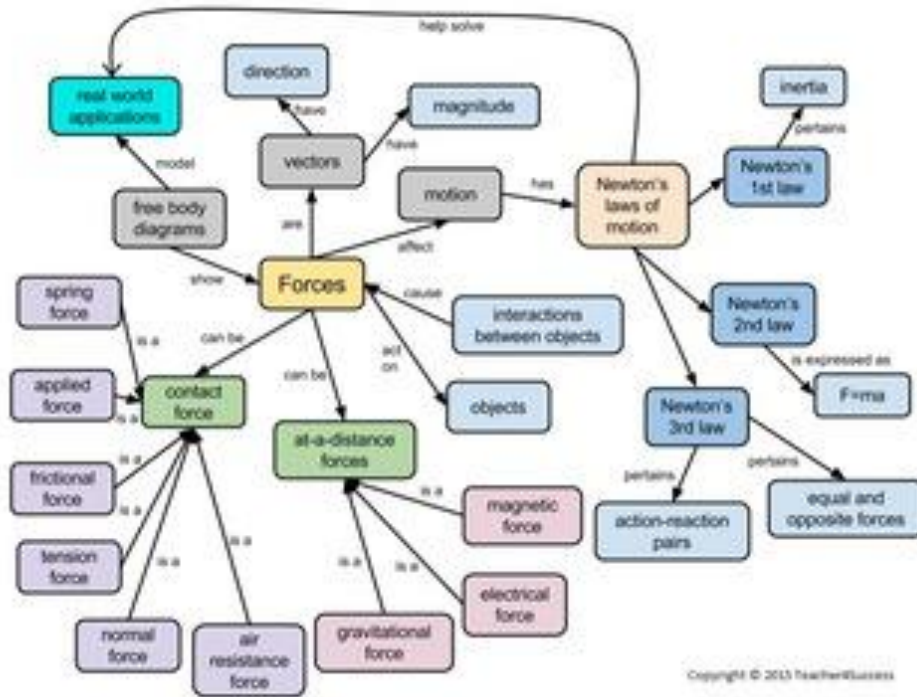






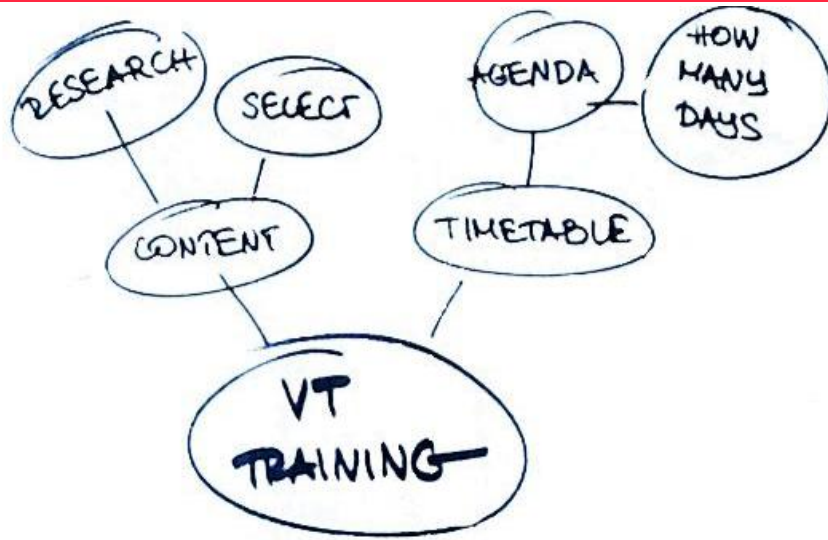
Concept Map

Invented by Joseph Novak



VT
TRAINING









Concept poster



VISUAL THINKING WORKSHOP

CHALLENGE: HOW MIGHT WE ENABLE TEACHERS TO USE V.T. IN THEIR CLASSES?

FEATURES:


- 6 different instruments
- 3 enthusiastic trainers
- 3 days of practical exercise

WHAT SHOULD WE TEST?

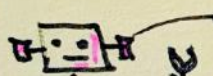
- IS IT EASY TO APPLY?
- WORKSHOP FLOW
- trainers' endurance

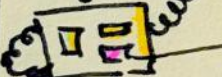
CONCEPT POST


A hand-drawn diagram of a workshop. It shows three stick figures standing in front of a whiteboard. The whiteboard contains a 'To Do' list, a 'Done' list, a target symbol, and a flowchart. Arrows point from the text '6 different instruments', '3 enthusiastic trainers', and '3 days of practical exercise' to the whiteboard. Below the whiteboard, there are three arrows pointing to the text 'WHAT SHOULD WE TEST?' and its sub-points. At the bottom right, there is a small drawing of a person and the text 'CONCEPT POST'.

 S NAME _____

MOITO: _____

 1. _____

 2. _____

 3. _____

Hmm...



Storyboard

Invented by Webb Smith





1. Wide shot of both Sarah and Callum illustrating where they are and what the film is about
Props: Megaphone, Clapper board

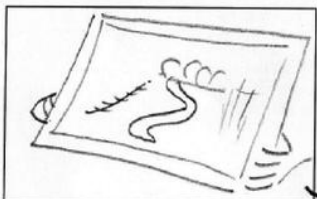


2. Close-up of Sarah speaking directly to camera

Script: Sarah
'One thing you must remember...'



3. Low angle camera pointing up at Callum
Props: Moustache, Paintbrush
Script: Callum
'Oops! Sarah is right...'



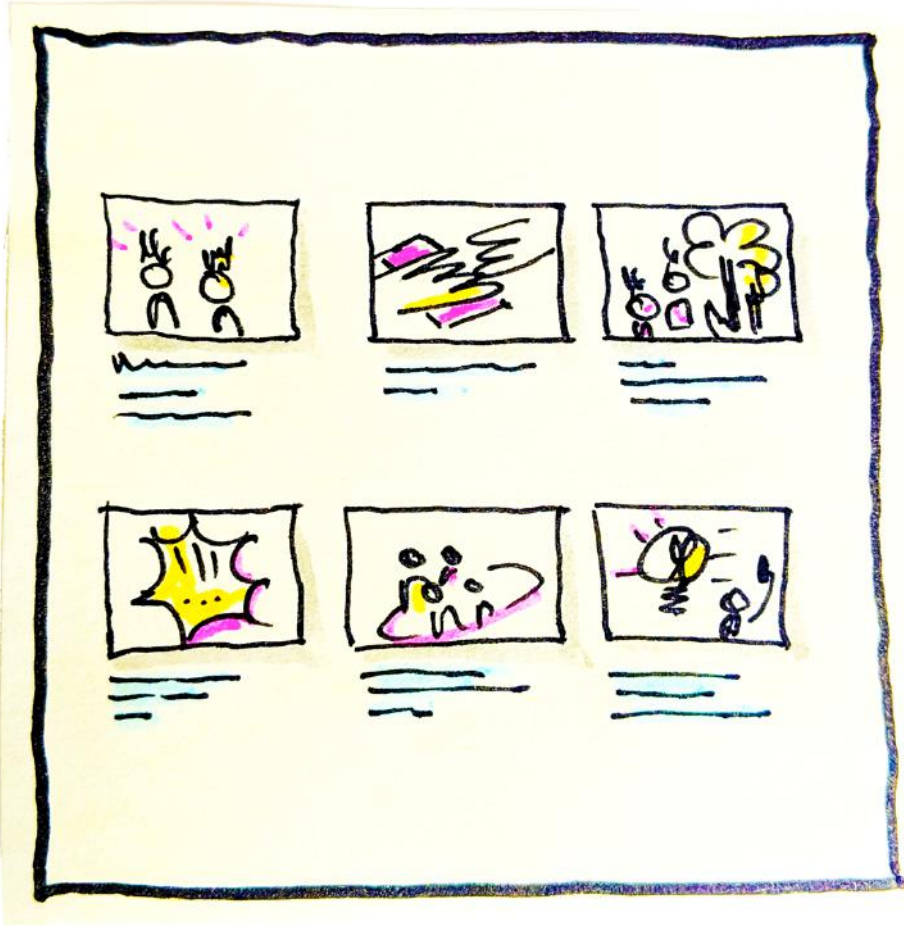
4. Close up of Sarah holding photograph



5. Camera zooms out to a wide shot showing Sarah speaking about using photographs to plan your storyboard.

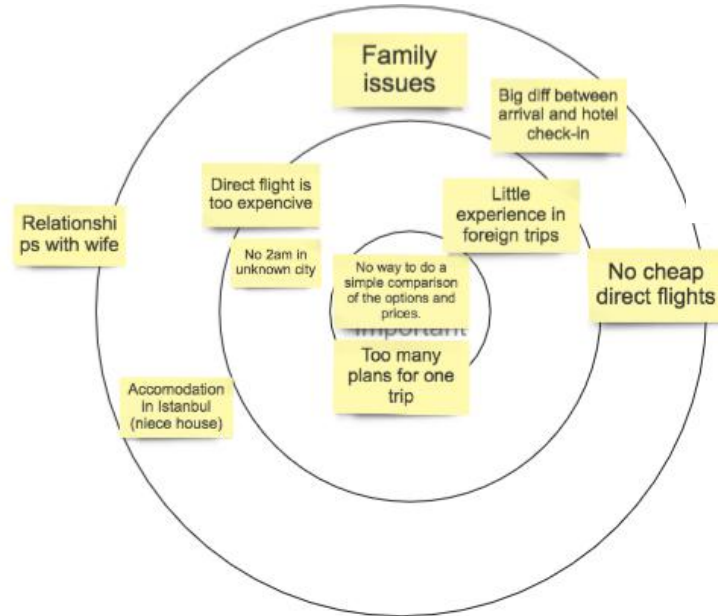


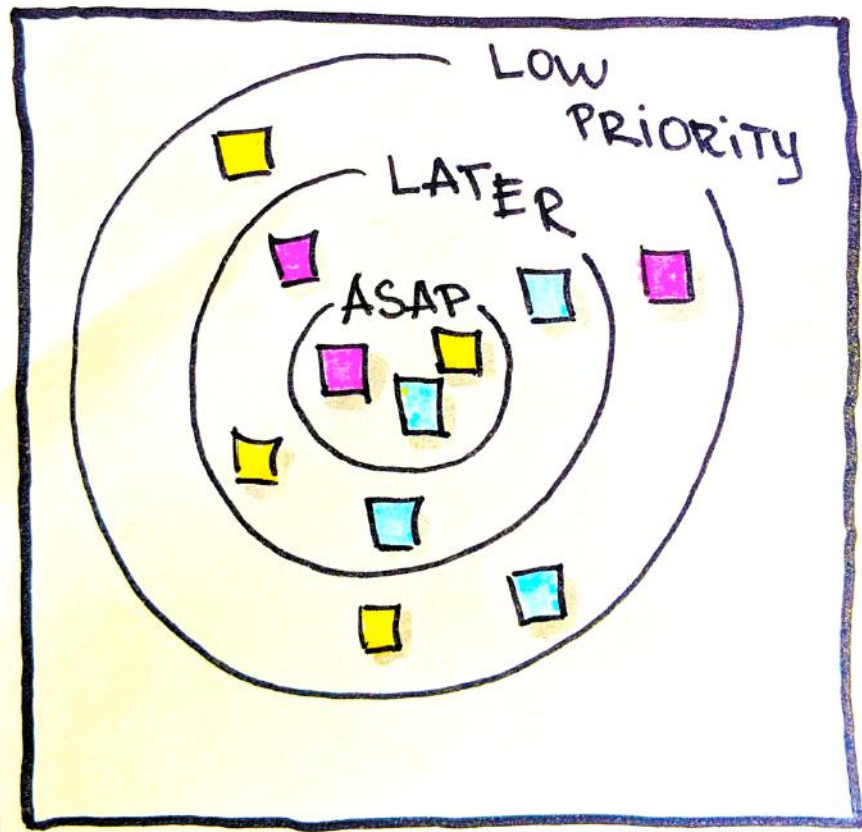
6. Over shoulder shot of Callum pointing to drawings of different shots that you could try filming.



Bull's eye diagram

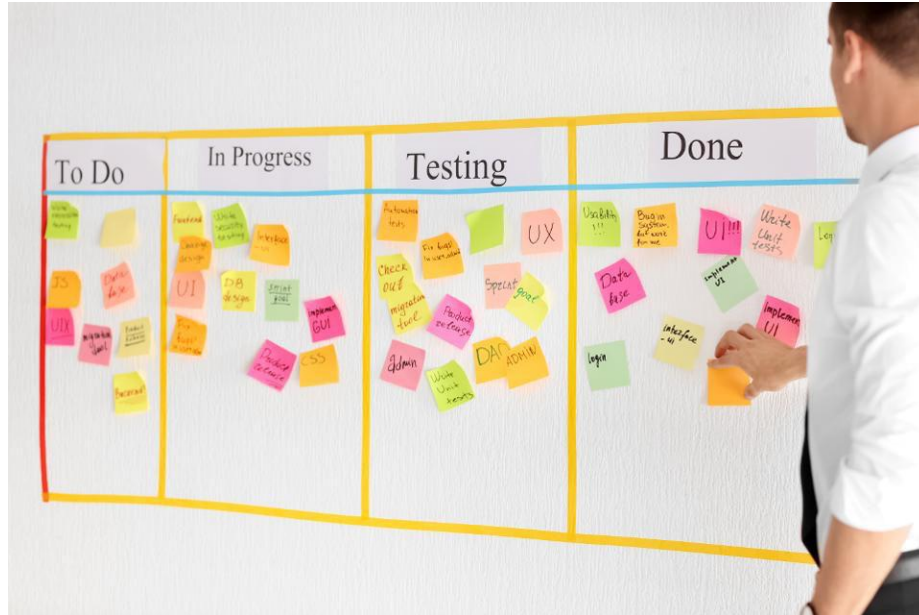
Invented by Dave Bishop and Paul Gould

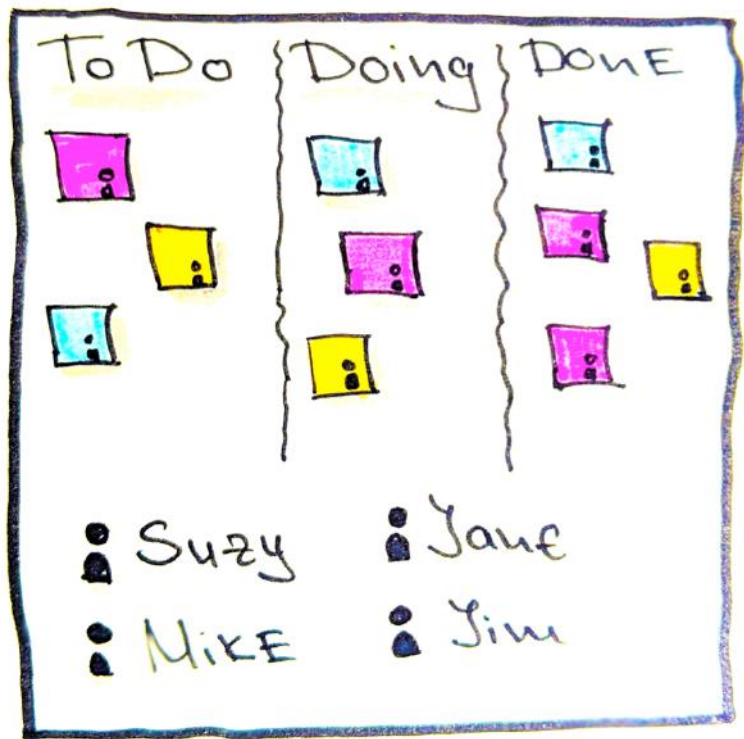




Kanban board

Invented by Taiichi Ohno





THANK YOU!



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