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Teaching Fellow Art & Design MHSES



THE UNIVERSITY of EDINBURGH

Learning and Teaching Conference 2023





Olthough I love pens, the moterial you use doesn't really matter that much after all.

EVA-LOTTA



I like spiral-bound sketchbooks, because they fold over into a nice solid block made



he best skelchbook is the one you have



The plan for this session



Define terms Describe what I have done Give examples Show impact Next steps Time for questions

Visual Literacy



The ability to read, write and create visual images.

A concept that relates to art but has much wider applications.

Visual literacy is about language, communication and interaction.

A linguistic tool with which we communicate, exchange ideas and navigate our complex world.

Kirsten Harrison (Visual Literacy Today)

Associated skills Visual reading Visual writing

Visual thinking

Visual learning

J Kedra



How? Dual coding Theory

Alan Paivio

Also – Cognitive Load Theory



To view

Complex ideas communicated instantly

To create More engaged in the moment

<u>Why Visual Literacy is important -</u> <u>Visual literacy - LibGuides at</u> <u>University of Birmingham</u> (bham.ac.uk)



<u>Humans Process Visual</u> <u>Data Better | Thermopylae</u> <u>Sciences + Technology (t-</u> <u>sciences.com)</u>



More engaging and accessible? Beneficial for EAL 10% dyslexic learners – not evenly spread across cohort



My story



The intervention

- 1. Visual timelines / journeys
- 2. Sketchnotes
- 3. Infographics /Icons



Timeline – A Learning wall





Timeline

Student example

Progress bar adapted for teaching



Sketchnotes

(Or visual notetaking)

Recording information through the combination of illustrations, symbols and text.

ACTIVE not PASSIVE

Can easily be combined with Cornell notetaking

Michael Rohde



Cornell meets sketch note instructional

ST

video

CUES	NAME, DATE, TOPIC, CLASS
WRITTEN SOON AFTER CLASS ANTICIPATED EXAM QUESTIONS	NOTES
	TAKEN DURING CLASS
	· MAIN POINTS
	· BULLET POINTS
	· DIAGRAMS / CHARTS
	· ABBREVIATE
MAIN IDEAS OR PEOPLE	· PARAPHRASE
	· OUTLINES
	· LEAVE SPACE BETWEEN
VOCABULARY WORDS	Topics
USED FOR REVIEW & STUDY	CORNELL NOTE - TAKING METHOD
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N THE MAIN	FTER CLASS. BRIEF SUMMARY HIGHLIGHTING POINTS IN THE NOTES ON THIS PAGE. FIND INFO LATER.



'How to' Sketchnote resources

Customise as a group

Sketchnote Tips Carol Anne McGuire



But I can't draw...



Students will make their own symbols

Gives the ability for ALL to skim read (more later)

What notes might look like



What big ideas might look like?

EdTA structure.



Student example

Students reported being more engaged, active during lecture note taking and recall was better

This is example summarises a 4week plan for teaching

See the whole unit at a glance



Icons and infographics

Adapted all slides in my teaching resources

Adopted by students

Visible in their notes and within their own teaching materials.

Easiest strategy for all to adopt?



Titration

Determine the reacting volumes of solutions of acid and alkali by titration and determine the concentration of solutions of acid and alkali by titration

In this experiment you will use the titration technique to determine the concentration of the provided sodium hydroxide solution. The process of carrying out a titration allows us to accurately measure the volumes of an acid and an alkali required for neutralisation. An indicator will be used to determine the exact volume required for neutralisation.

In order to carry out this practical you will be using two pieces of volumetric apparatus, the pipette and burette. You will also be carrying out the technique of titrating. All these skills require careful understanding and practice in order to ensure that the measurements are as accurate as possible.

Apparatus and chemicals

Sodium hydroxide solution 100 cm³ (approx. concentration 8.0 g/dm³ – technician- make a note of the exact concentration made up)

0.1 mol/dm³ sulfuric acid, H₂SO₄ 100 cm³

Phenolphthalein indicator

25.0 cm³ pipette and filler

50.0 cm³ burette, retort stand and burette clamp

Small funnel

250 cm³ Conical flask (x3)

Distilled Water, White tile

Method

Rinse the burette with distilled water, then with the supplied alkali. Fill the burette with the alkali taking care to ensure that the bottom of the meniscus is on zero and that the jet of the burette is filled completely.

Rinse the pipette with distilled water, then with the sulfuric acid. Fill the pipette with the acid, taking care with the pipette filler and ensuring that the bottom of the meniscus is on the 'line' of the pipette.

Carefully transfer the acid in the pipette into a conical flask, to remove the final drop from the pipette, gently touch the end of the pipette onto the surface of the liquid in the conical flask.

Add 3 drops of phenolphthalein indicator to the conical flask and swirl gently to mix.

Place the conical flask onto a white tile underneath the burette.

Titrate the alkali with the acid, stop adding the alkali when the indicator turns pink and remains pink.

Record your 'rough' titre value in the results table.

Repeat the process with fresh acid and indicator, adding the alkali dropwise with swirling as the end point is reached.

Repeat once more, or until 2 titre values are within 0.2 $\rm cm^3$ of each other.

Calculate the average titre.



Data collection and analysis





Baseline questionnaire (qualitative and quantitative)

Methods



Peer observation



Exit questionnaire (quantitative)

Baseline Questionnaire

Keen to please?

'The displays around the studio help me understand the structure of the PGDE programme.'



Exit questionnaire

All students understood what was meant by Visual Literacy – achieved my Learning Intention!

My use of sketchnote and icons was remembered by all

Use of timelines was noted less frequently, but cited as important in helping management and organisation through the programme. How did visual literacy skills help you in your understanding?



Dyslexic learners

ENGAGEMENT

I was able to understand information quickly instead of having to read it ALL out

RECALL

Later, I can recall what was said when looking at the images My reading speed is low, so having icons instead helps keep me engaged in what is being said in lectures.

es the scanning and skimming that slexic learners use with written text.



What about you

