Cyflwyniad i Arddulliau Dysgu
Introduction to Learning Styles

Nod

- Cyflwyniad i ystod o arddulliau dysgu

Aim

- *An introduction to a range of learning styles*

Cyflwyniad i Arddulliau Dysgu
Introduction to Learning Styles

Amcanion

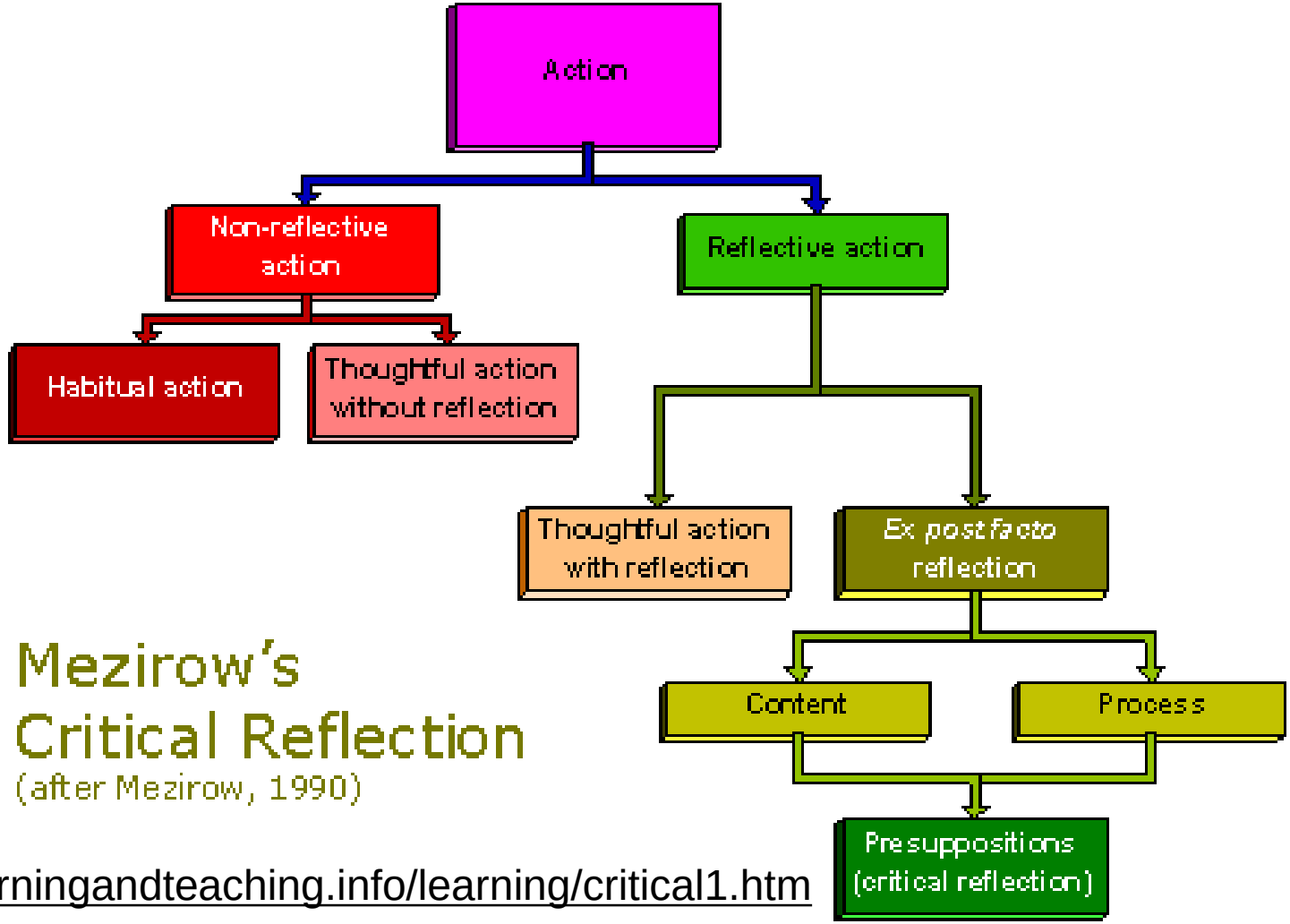
- Trafod arddulliau personol o ddysgu
- Perthnasu'r gwahanol arddulliau i ddysgu blaenorol
- Adfyfyrio a'u perthnasu i ddysgu trwy brofiad a meysydd dysgu

Objectives

- *Discuss personal styles of learning;*
- *Relate the different styles to learning achieved*
- *Reflect and relate to experiential learning and areas of learning*

“Perhaps even more central to adult learning than elaborating established meaning schemes is the process of reflecting back on prior learning to determine whether what we have learned is justified under present circumstances. This is a crucial learning process egregiously ignored by learning theorists.” (Mezirow, 1990:5)

Mezirow, Jack. *Transformative dimensions of adult learning*. San Francisco, CA: Jossey-Bass, 1991.



Mezirow's Critical Reflection

(after Mezirow, 1990)

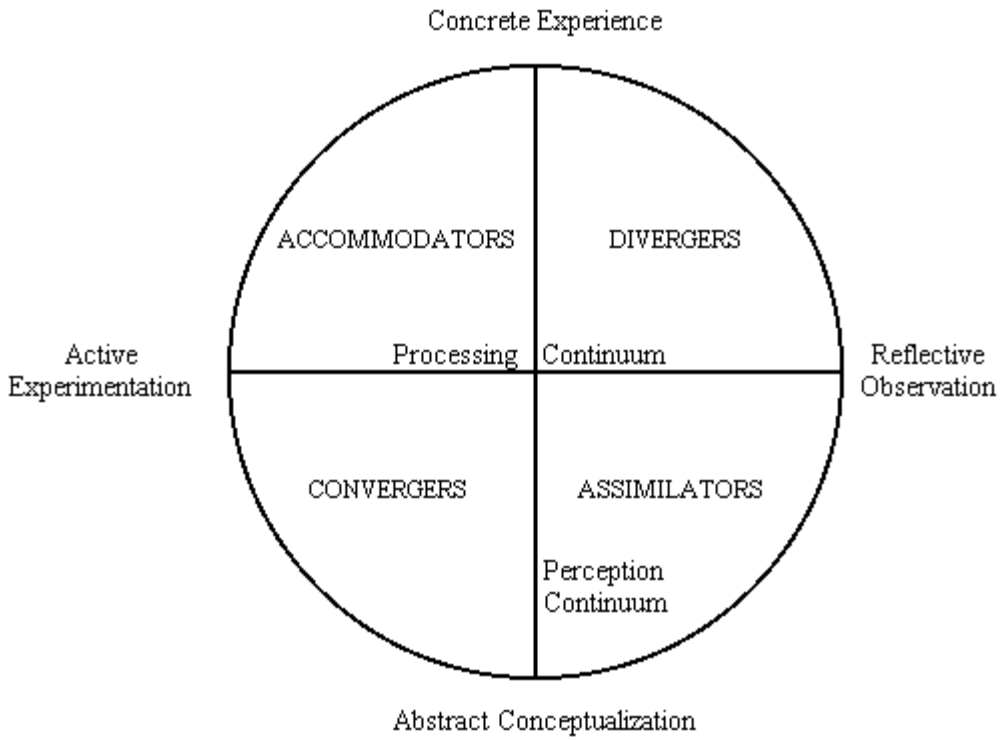
http://www.learningandteaching.info/learning/critical1.htm

Kolb (1984) provides one of the most useful descriptive models of the adult learning process available. The model starts with Lewin's cycle of adult learning.

http://www.infed.org/biblio/b-explrn.htm

http://www.learningandteaching.info/learning/experience.htm

Experiential Learning Styles

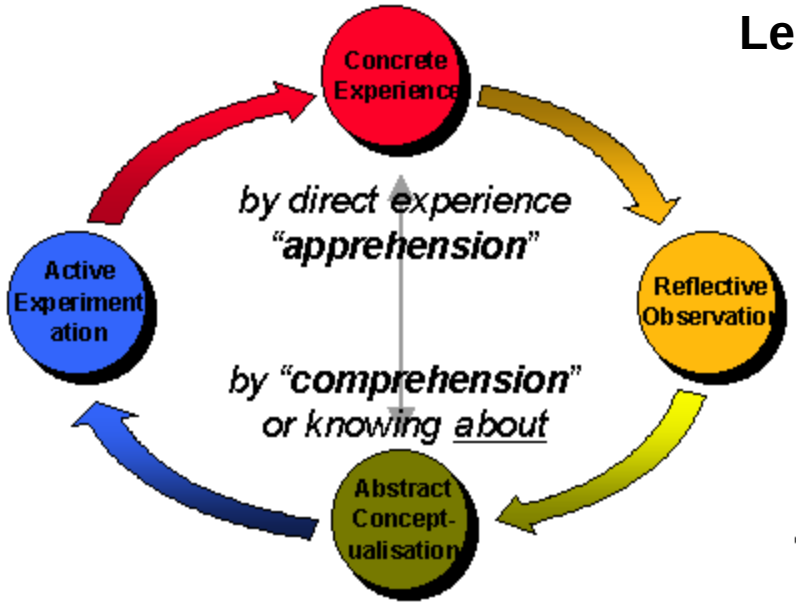


Kolb's Learning Styles

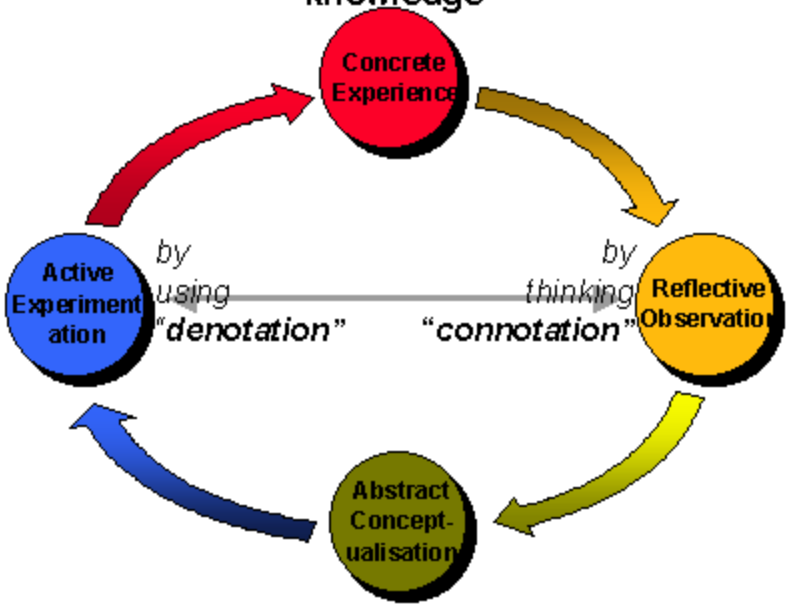
http://www.scss.tcd.ie/disciplines/information_systems/crite/crite_web/lpr/imgs/styles.gif

Elaborations of the Experiential Learning Cycle

Two ways of knowing:



Two ways of understanding or "transforming" knowledge



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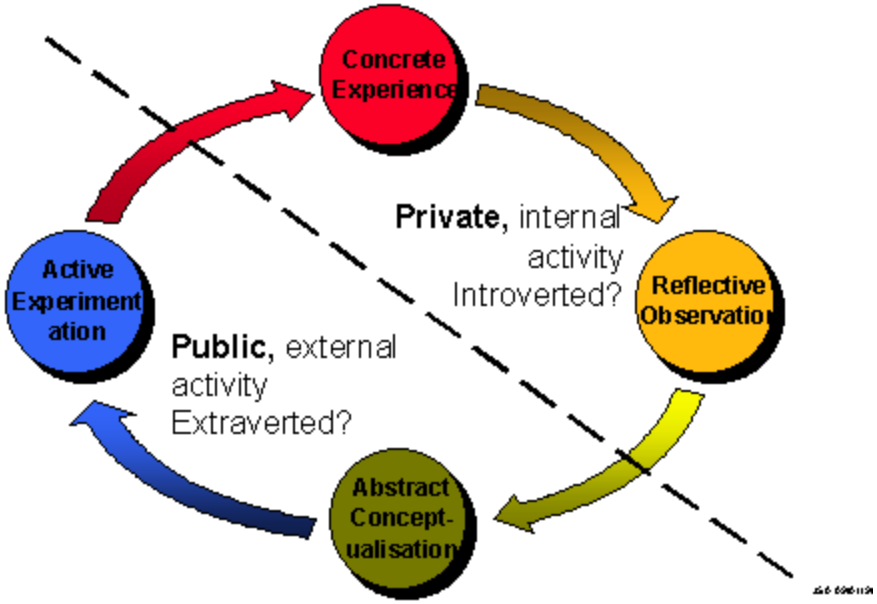
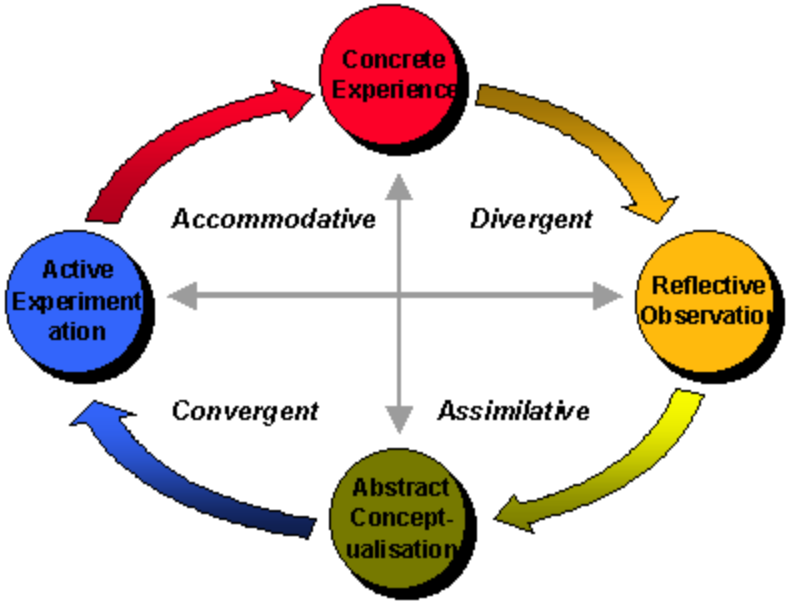
Gwired

Deliver

Or another way of looking at it: mine, not Kolb's!

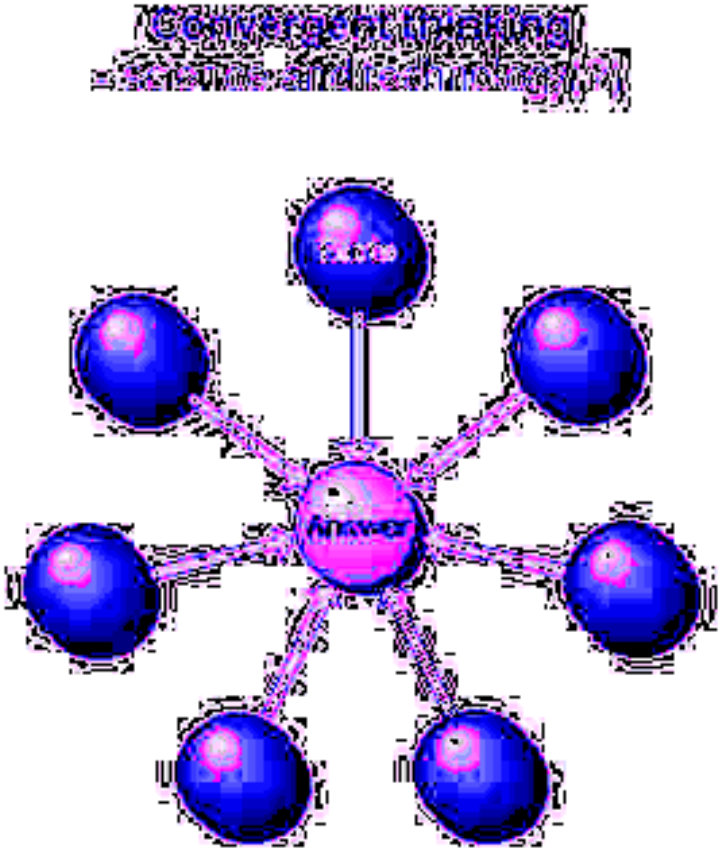


Leads to four kinds of knowledge:



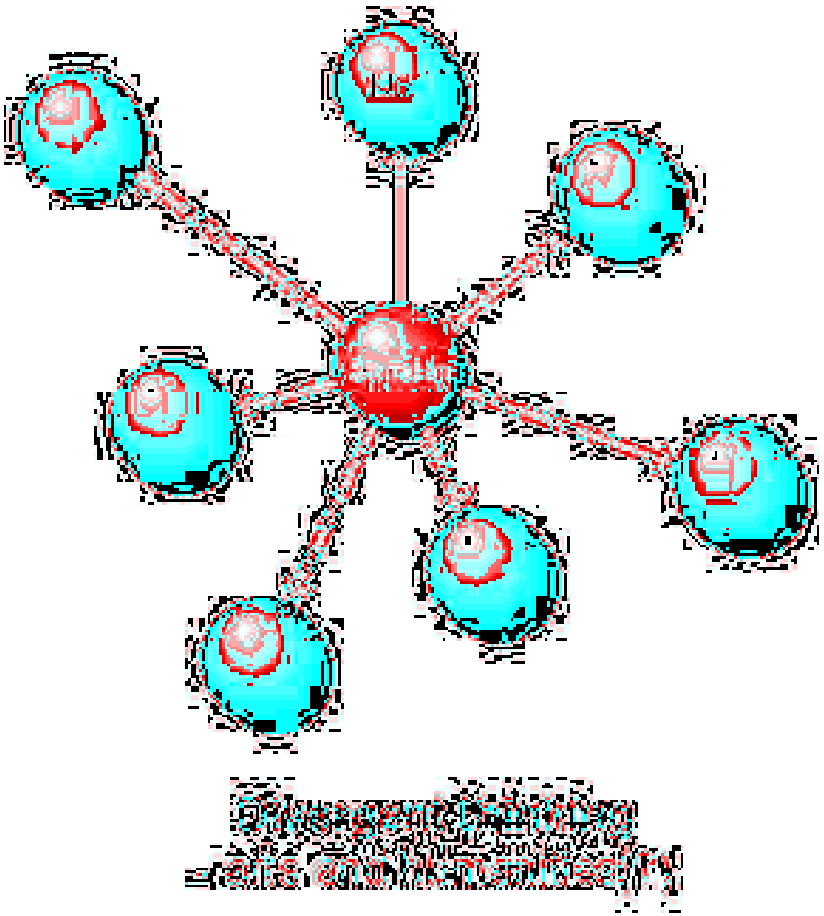
Convergent and Divergent Learning Styles

ATHERTON J S (2010) *Learning and Teaching; Convergent and Divergent Learning* [On-line] UK: Available: http://www.learningandteaching.info/learning/converge.htm Accessed: 31 January 2011



- One Hudson called "convergent" thinking, in which the person is good at bringing material from a variety of sources to bear on a problem, in such a way as to produce the "correct" answer. This kind of thinking is particularly appropriate in science, maths and technology.
- Because of the need for consistency and reliability, this is really the only form of thinking which standardised intelligence tests, (and even national exams) can test

HUDSON L (1967) *Contrary Imaginations; a psychological study of the English Schoolboy* Harmondsworth: Penguin



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•The other he termed "divergent" thinking. Here the student's skill is in broadly creative elaboration of ideas prompted by a stimulus, and is more suited to artistic pursuits and study in the humanities.

•In order to get at this kind of thinking, he devised or adapted open-ended tests, such as the "Uses of Objects" test

HUDSON L (1967) *Contrary Imaginations; a psychological study of the English Schoolboy* Harmondsworth: Penguin

Cymhelliant a Dysgu
Motivation and Learning

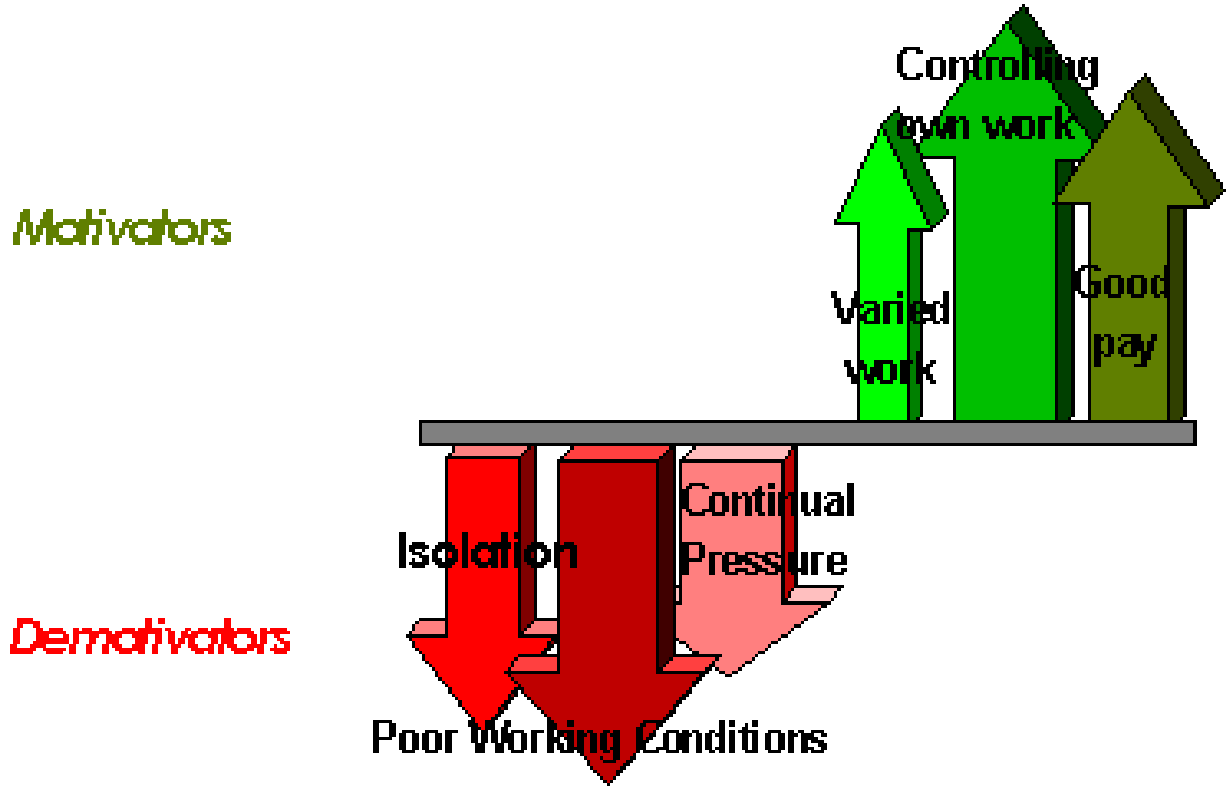
Motivation

- Hertzberg felt that there were two types of factors affecting motivation and job satisfaction, namely hygiene and maintenance factors ("dissatisfiers"), and motivators or growth factors ("satisfiers").

- Anything wrong with the hygiene factors is a source of dissatisfaction for the individual and cannot be motivators.

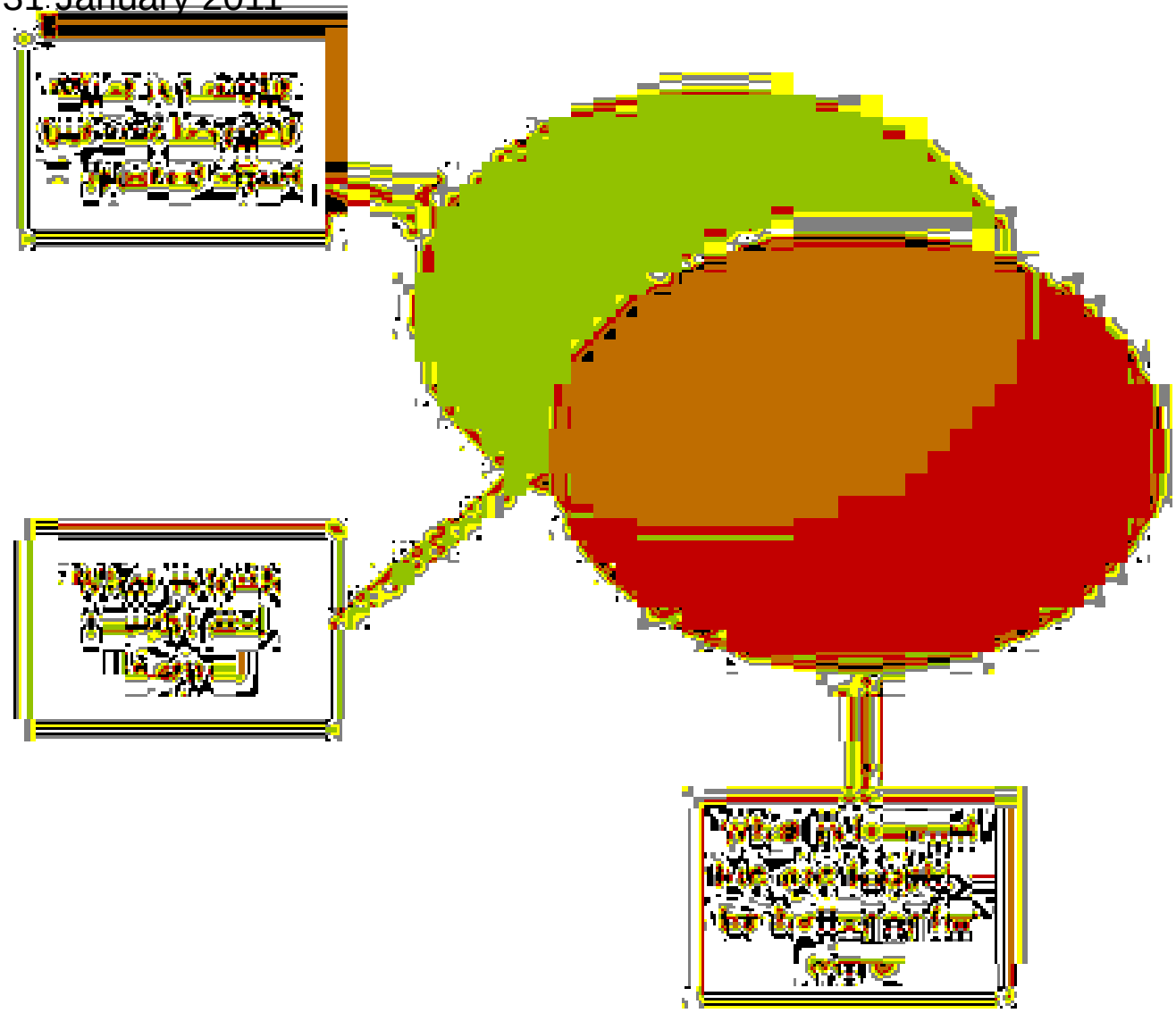
www.learningandteaching.info/.../motivation.htm

www.learningandteaching.info/.../motivation.htm



Herzberg's Motivational Hygiene model

ATHERTON J S (2010) *Learning and Teaching; What is learning?* [On-line] UK: Available: http://www.learningandteaching.info/learning/whatlearn.htm Accessed: 31 January 2011



Visual Learners (Dysgwyr Gweledol)

Visual learners relate most effectively to written information, notes, diagrams and pictures. Typically they will be unhappy with a presentation where they are unable to take detailed notes - to an extent information does not exist for a visual learner unless it has been seen written down. This is why some visual learners will take notes even when they have printed course notes on the desk in front of them. Visual learners will tend to be most effective in written communication, symbol manipulation etc.

Visual learners make up around 65% of the population.

Auditory Learners (Dysgwyr Clywedol)

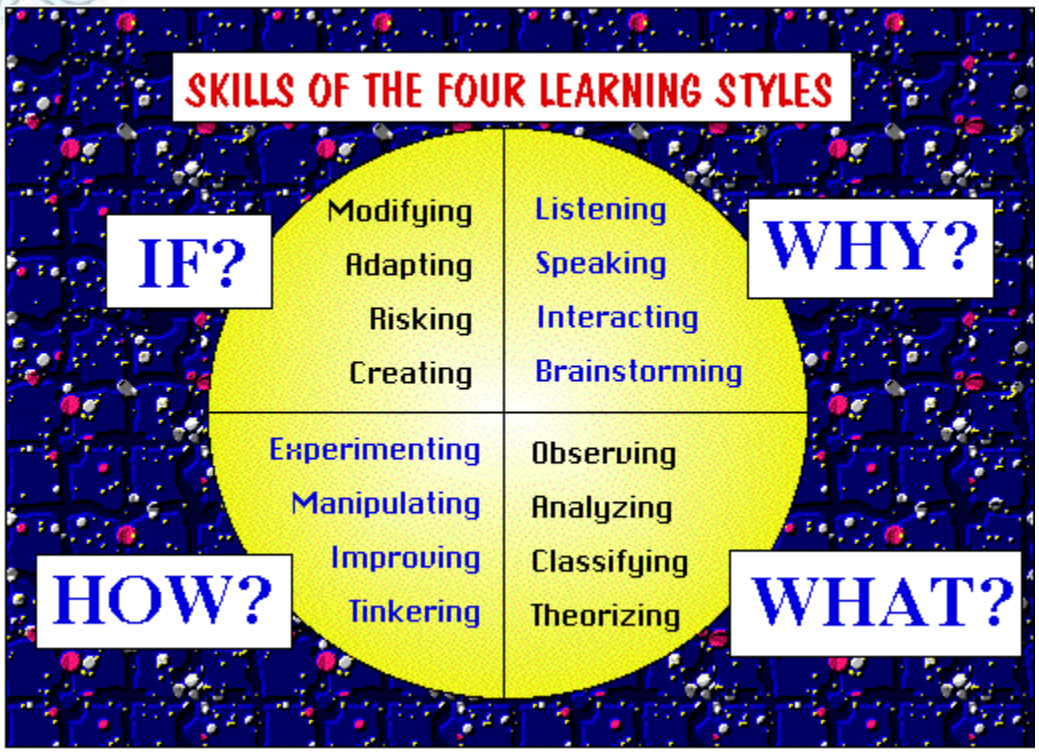
Auditory learners relate most effectively to the spoken word. They will tend to listen to a lecture, and then take notes afterwards, or rely on printed notes. Often information written down will have little meaning until it has been heard - it may help auditory learners to read written information out loud. Auditory learners may be sophisticated speakers, and may specialise effectively in subjects like law or politics.

Auditory learners make up about 30% of the population.

Kinesthetic Learners (Dysgwyr Cinesthetig)

Kinesthetic Learners learn effectively through touch and movement and space, and learn skills by imitation and practice. Predominantly kinesthetic learners can appear slow, in that information is normally not presented in a style that suits their learning methods. Kinesthetic learners make up around 5% of the population.

Tactile learners prefer to learn by doing. They usually learn best when they are allowed to use their hands and sense of touch to learn new information and apply new skills. An extension of this style is a **"kinesthetic"** learning style. Kinesthetic learners enjoy not only using their hands in the learning process but benefit from all types of physical movement while learning.



According to Bernice McCarthy, developer of the 4MAT system, there are 4 major learning styles, each of which asks different questions and displays different strengths during the learning process.
http://www.aboutlearning.com/

- http://www.youtube.com/watch?v=cpqQ5wUXph4
- http://www.youtube.com/watch?v=6CCEg2U3K9U –

4MAT on YouTube

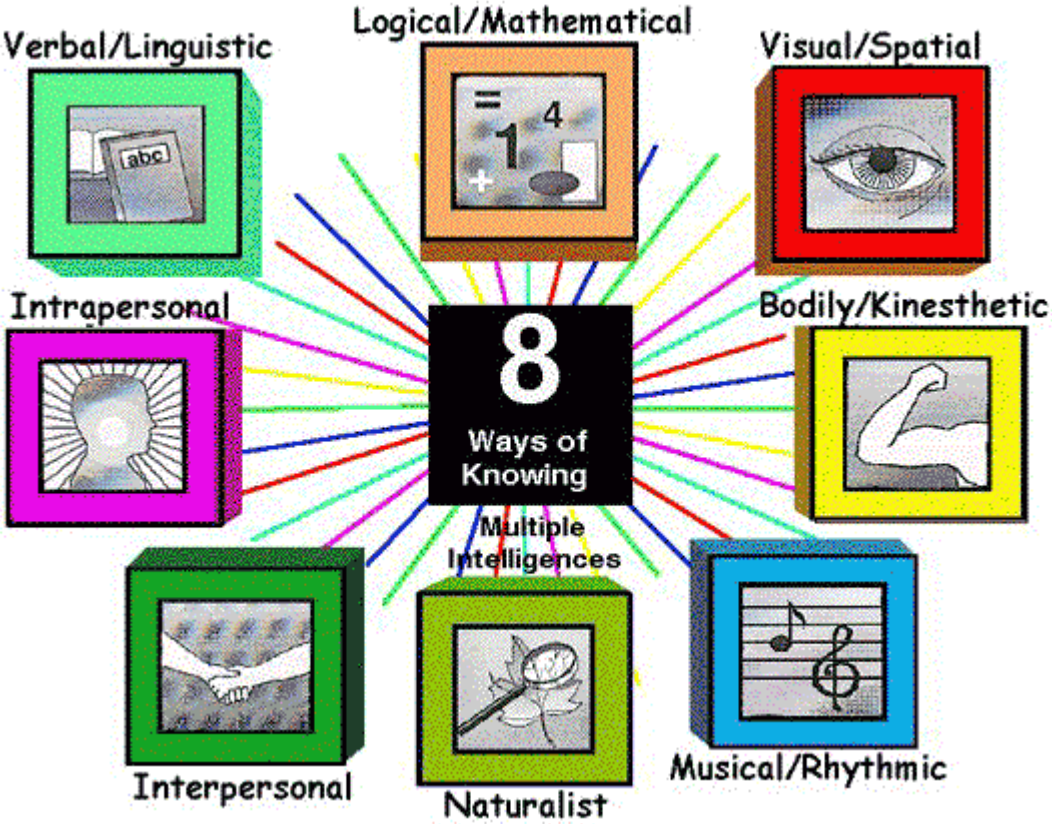
Gardner's Multiple Intelligences (Deallusrwydd Lluosol)

Gardner chose to look at learning styles in a different light. Winters (1995) and Wang (1996) provided the following summary of Gardener's Multiple Intelligences:

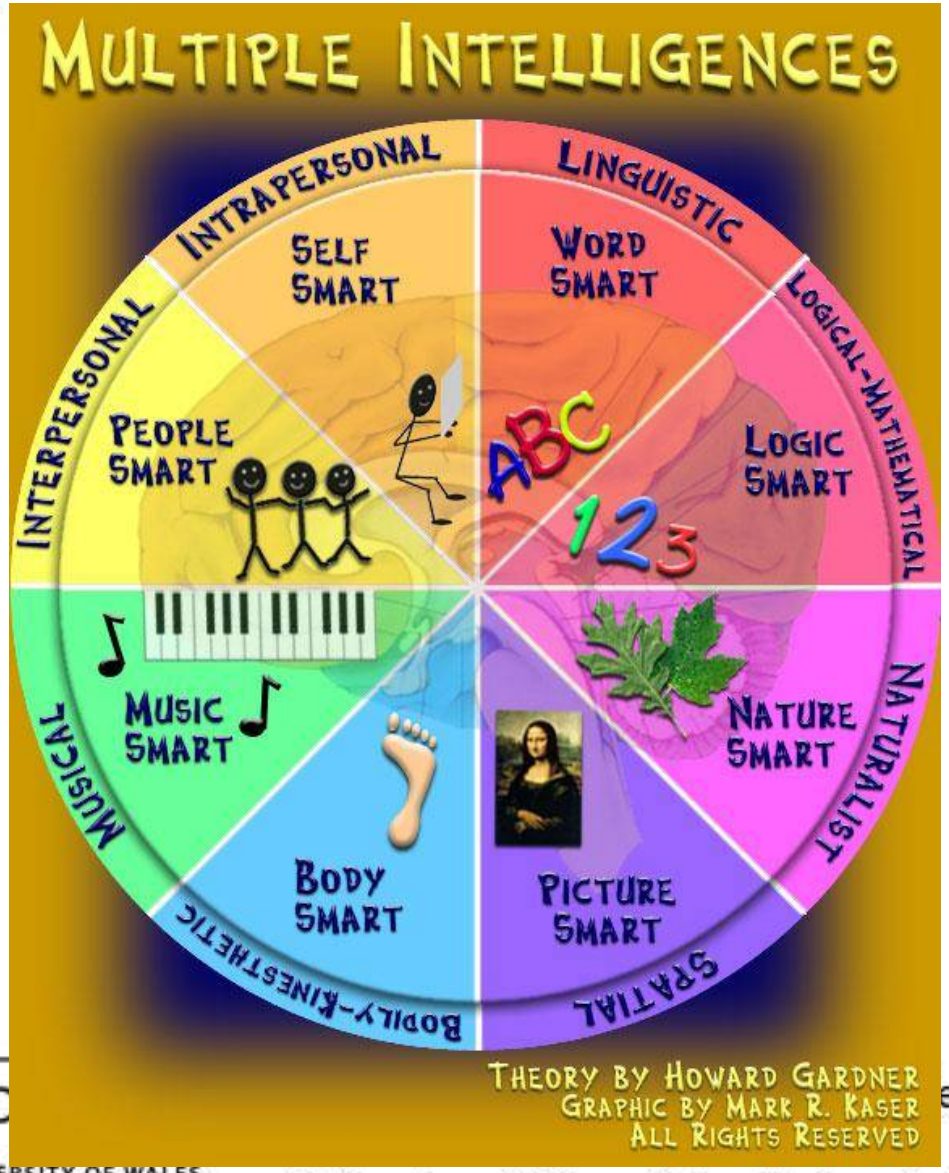
- plays with words (Vernal/Linguistic)
- plays with questions (Logical/Mathematical)
- plays with pictures (Visual/Spatial)
- plays with music (Music/Rhythmic)
- plays with moving (Body/Kinesthetic)
- plays with socializing (Interpersonal)
- plays alone (Intrapersonal)

Again, each of us uses some of these styles when learning, but we tend to prefer a small number of methods over the rest.

http://www.howardgardner.com/MI/mi.html
http://www.infed.org/thinkers/gardner.htm
YouTube - http://www.youtube.com/watch?v=l2QtSbP4FRg
http://www.youtube.com/watch?v=KEFpaY3GI-I



http://nccuinternational.files.wordpress.com/2010/12/mult-intelligences.gif?w=576&h=418



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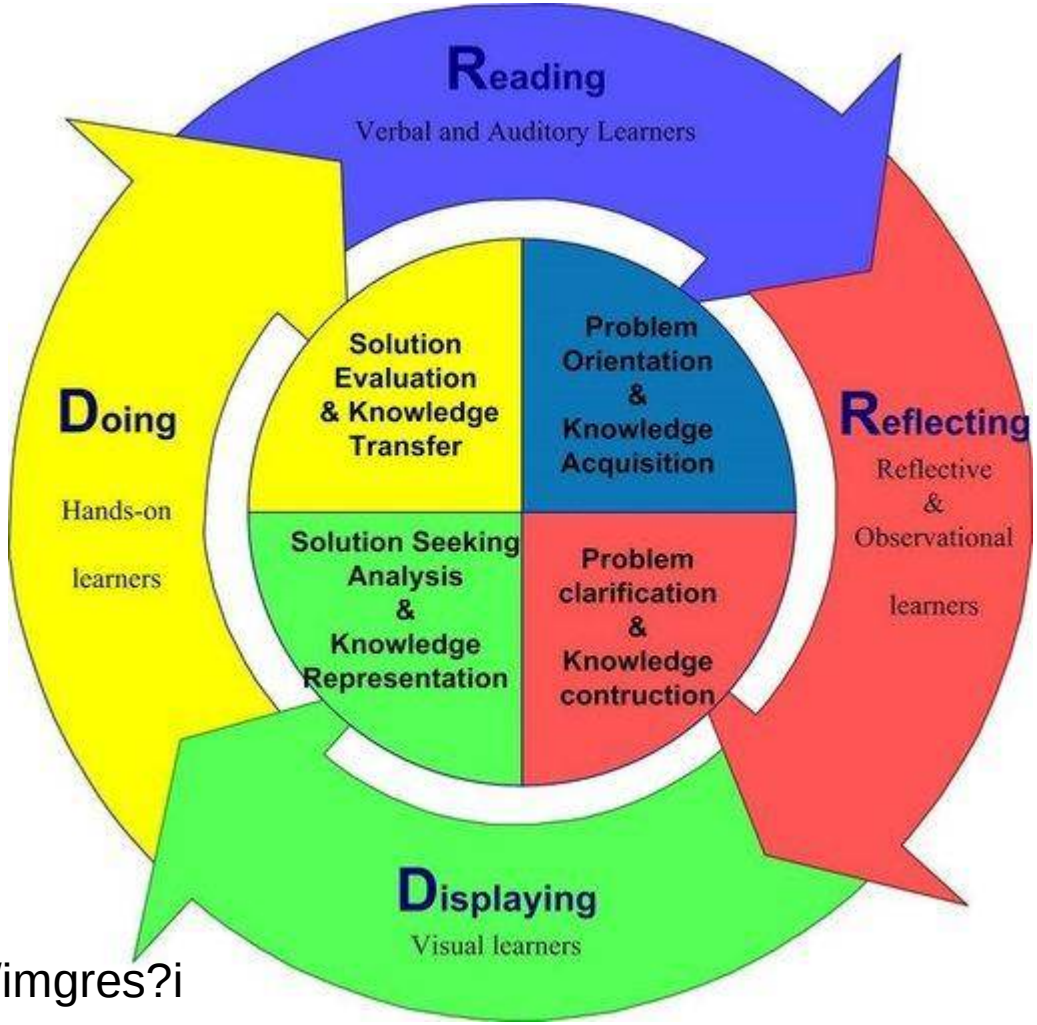

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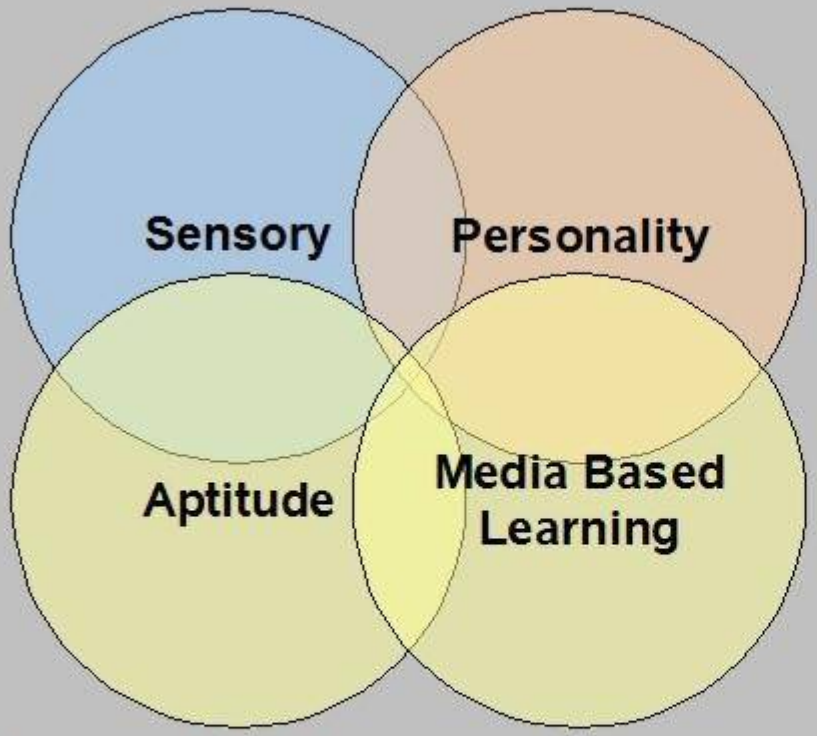
What type of learner are you?

Left – Analytical
Successive hemispheric style

1 Verbal
2 Responds to work meaning
3 Sequential
4 Processes information linearly
5 Responds to Logic
6 Plans ahead
7 Recalls people's names
8 Speaks with few gestures
9 Punctual
10 Prefers formal study design
11 Prefers bright lights when studying

Right – Global
Simultaneous hemispheric style

1 Visual
2 Responds to voice
3 Random
4 Processes information in varied order
5 Responds to emotion
6 Impulsive
7 Recalls people's faces
8 Gestures when speaking
9 Less punctual
10 Prefers sound/music background when studying
11 Prefers frequent mobility when studying



NeoMillenial approach to Learning, Thinking & Cognitive styles

Sensory Model – VARK
Personality Model – Myers-Briggs
Aptitude Model – Gardner's Multiple Intelligences
Media based Model – Neomillennial Learning style

ACTIVIST Learning by doing- in action	REFLECTIVIST Wait and see – contemplates and considers how to approach
THEORIST Consults the experts	PRAGMATIC Selects the most appropriate form of action in the given circumstances

Theorists

Try the following to appeal to theorists:

- Models
- Statistics
- Stories
- Quotes
- Background information
- Applying theories

The follolwing slides are sourced but source unknown

Reflectors

The following activities are likely to appeal to reflectors:

- Paired discussions
- Self analysis questionnaires
- Personality questionnaires
- Time out
- Observing activities
- Feedback from others
- Coaching
- Interviews

Activists

The following activities are likely to appeal to activists

- Brainstorms
- Problem solving
- Group discussions
- Puzzles
- Competitions
- Roleplays

Pragmatists

Pragmatists are likely to find the following activities appealing:

- Time to think about how to apply learning in reality
- Case studies
- Problem solving
- Discussion

A MODEL OF ACTIVE LEARNING

EXPERIENCE OF:

DOING

OBSERVING

DIALOGUE WITH:

SELF

OTHERS