

Dyfyniad 'Beth yw dysgu?'

Definition 'What is learnig?'

- Damcaniaeth syml o ddysgu gan ddefnyddio'r amgylchedd awyr agored.
- Mae gennych 5 munud i drafod a chytuno ar ddiffiniad. Byddwch yn barod i readru i'r dosbarth.
- A simple theory of learning using the outdoor environment.
- You have 5 minutes to discuss and agree upon a definition. Be prepared to share with whole class.



Beth yw Dysgu Effeithiol?

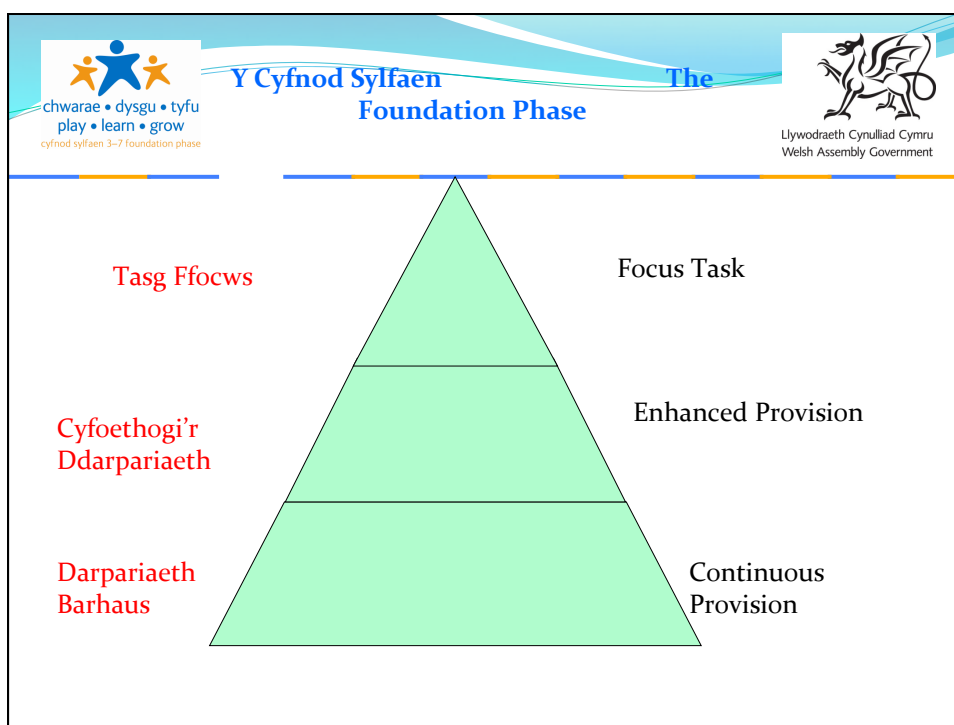
- Agwedd gadarnhaol tuag at ddysgu.
- Dysgu a pherchenogaeth dysgu
- Dysgu gweithredol.
- Defnyddio'r synhwyrâu.
- Cyfathrebu.

What is effective learning?

- A positive disposition to learning.
- Ownership of the learning
- Experiential learning.
- The Senses.
- Communication.

Beth yw rôl yr oedolyn? What is the role of the adult?

- Beth yw rôl yr athro (neu arall) yn y broses o ddysgu?
- Mae gennych 5 munud i drafod a chytuno ar beth ydy'r rôl. Byddwch yn barod i readru i'r dosbarth.
- What is the role of the teacher (or other) in the process of learning?
- You have 5 minutes to discuss and agree upon the role. Be prepared to share with whole class.



Sut wyf yn dysgu? How do I learn?

- | | |
|--|---|
| • Gwneud | • Doing |
| • Cael hwyl | • Enjoying |
| • Arbrofi | • Experimenting |
| • Rhyngweithio ag eraill | • Interaction with others |
| • Datrys problemau | • Problem solving by |
| (i) wrth fethu a llwyddo | (i) failing and achieving |
| (ii) ymchwilio | (ii) investigating |
| • Gwyllo | • Watching |
| • Ailadrodd Pwrpasol | • Purposeful Repetition |
| • Datblygu annibyniaeth a sgiliau meddwl | • Developing independence and thinking. |

Felly, sut rydym yn dysgu? So, how do we learn?

- | | |
|---|--|
| • Trwy ryngweithio ag eraill? | Through interaction with others? |
| • Trwy arbrofi personol? | Through personal experimentation? |
| • Trwy atgyfnethu positif a negyddol? | Through positive and negative reinforcement? |
| • Trwy addysgu athro-arweiniol? | Through teacher directed instruction? |
| • Trwy ddatblygu sylfaen o wybodaeth? | Through developing a knowledge base? |
| • Trwy ddatblygu sgiliau trwy'r sylfaen gwybodaeth? | Through developing skills through that knowledge base? |

A yw'n deg i ddweud y gallai cyfres effeithiol o wersi gynnwys yr holl elfennau?

Is it fair to say that an effective sequence of lessons may well include all elements?

Sut ydym yn dysgu?

How do we learn?

- ▶ Mae tri math o ddysgwr:
- ▶ Gweledol
- ▶ Clywedol
- ▶ Gweithredol/Kinaestetig
- ▶ Angen teilwra tasgau i steil unigol y dysgwr.
- ▶ Er enghraifft: (G) tynnu llun wyneb Macbeth, (C) gwrando ar ddisgrifiad o Macbeth, (K) creu wyneb Macbeth allan o ewyn eillio.
- There are three main styles of learner:
- Visual
- Audio
- Kinaesthetic
- Tasks need to be tailored to the individual style of the learner.
- For example: (V) drawing a picture of Macbeth's face, (A) listening to a description of him, (K) making Macbeth's face out of shaving foam.

Rhai damcaniaethau...

Some theories...

Y 3 mawr ...

- Ymddygiadaeth
- Lluniadaeth
- Lluniadaeth Cymdeithasol

The big 3 ...

- Behaviourism
- Constructivism
- Social Constructivism

Ymagweddau addysgu ymddygiadaethol

- Ymddygiad wedi'i reoli lle mae athro yn ganolog yn 'rhoi' gwybodaeth – mae'r disgybl yn derbynnydd tawel o'r wybodaeth a'r dealltwriaeth (reinforcement principle)
- Ail-adrodd ymatebion dymunol (drilio, cardiau fflach, phonics, adrodd tablau lluosï ...)
- Gwobrwyo ymddygiad dymunol (wyneb hapus, clod, pwyntiau grwp/tŷ, sticeri ...)
- Cosbau am ymddygiad annymunol (colli amser chwarae, colli breintiau, rhybudd ...)
- Yn fwy effeithiol ar gyfer rheolaeth dosbarth na dysgu?
- Y **problem** gyda'r ymagwedd ymddygiadaethol yw ei fod yn hybu dysgu ar sail canlyniadau allanol yn hytrach na dymuniad mewnol i ddysgu. **Trafodwch.**

Behaviourist teaching approaches

- A controlled approach in which the teacher is central as a 'giver' of information – the pupil becomes a passive 'recipient' of knowledge and understanding based on the reinforcement principle
- Repetition of desired responses (drilling, flash cards, phonics, times tables chanting ...)
- Reward for desired behaviour (smiley faces, praise, house points, merits, bonuses ...)
- Punishments for undesirable behaviour (missing break, loss of privileges, detention, warnings, sanctions ...)
- More effective for behaviour management than learning?

The **problem** with a behaviourist approach is that it initiates learning based on external consequences rather than internal desire to learn. **Discuss.**

Lluniadaeth

(‘Drwy archwilio ac arbrofi personol’)



“Ym marn lluniadaethwyr, canlyniad adeiladwaith meddyliol yw dysgu. Hynny yw, mae dysgu yn digwydd pan gaiff gwybodaeth newydd ei hadeiladu i mewn a'i hychwanegu at strwythur gwybodaeth, dealltwriaeth a sgiliau cyfredol unigolyn”

Pritchard (2009) *Ways of Learning*. London: Routledge

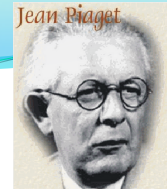
Constructivism



"Constructivists view learning as the result of mental construction. That is, learning takes place when new information is built into and added onto an individual's current structure of knowledge, understanding and skills"

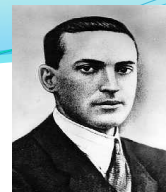
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Constructivism



- Key theorists: Bruner, Piaget, Montessori.
- People, as 'lone scientists' actively 'make meaning'.
- Jean Piaget, who was from Switzerland, (1896 – 1980) observed his children's cognitive development and thinking and concluded that the human infant actively seeks to make sense of the world.
- Learning is a result of the child's exploration of and interaction with the environment but importantly that learning is the result of internal processes rather than external stimuli.
- Children pass through stages in which different types of learning occur – implying that children are only able to learn certain information and skills once they have reached a certain stage in their development. He linked this to the age of a child.

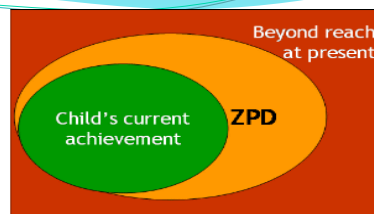
Social constructivism (‘Through interaction with others’)



Vygotsky (1896 – 1934) Russian psychologist

- All cognitive functions originate in social interaction and are then internalised on an individual level.
- Learners actively 'make meaning', and their social world is fundamental to this process.
- Language is a central component. Learning becomes internalised.

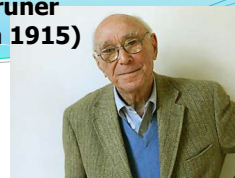
Zone of Proximal Development (ZPD)



- The gap between what a child can do on their own and what a child can do with support
- The child will not be able to take the next step in their development unless they are supported in the ZPD
- This support is sometimes known as **scaffolding** (see also Bruner) and is seen as the main role of adults/teachers.

What might this 'scaffolding' be in a classroom situation?

Jerome Bruner
(ganed yn 1915)



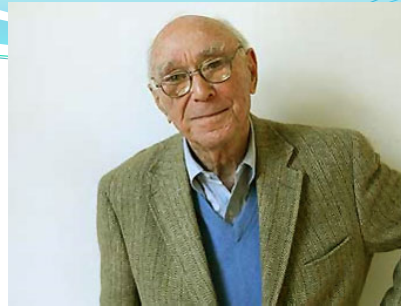
Damcaniaeth Datblygiad Gwybyddol - Bruner

- Gwnaeth ddiddordeb Bruner yn y broses sy'n galluogi plant i ffurfio cysyniadau ei arwain at ddatblygu syniadau Piaget a Vygotsky ymhellach.
- Credai bod dysgu yn cael ei gychwyn a'i gyfoethogi gan 'unigolyn arall sy'n fwy gwybodus' drwy sgaffaldio e.e. arwain, annog, trafod, holi a darparu deunyddiau ar gyfer ysgogi.

Gweler *Bandura* a 'damcaniaeth dysgu cymdeithasol' am bersbectif cysylltiedig, gan gynnwys y rôl mae dynwared yn chwarae yn y broses ddysgu.

Bruner's theory of Cognitive Development

Jerome Bruner
(1915 - 2016)



- Bruner's interest in the process of how children form concepts led him to extend Piaget and Vygotsky's thinking.
- He believed that learning is initiated and enhanced by a 'more knowledgeable other' through scaffolding e.g. guiding, prompting, discussing, questioning and providing stimulus materials

Felly, beth sydd yn gweithio? So, what *has* been seen to work?

1. (Addysgeg) Cynnwys Gwybodaeth (PCK)
2. Safon yr addysgu
3. Rheolaeth dosbarth / ymddygiad
4. Amgylchedd dosbarth / perthnasau / disgwyliadau
5. Credoau (damcaniaeth am bwnc, dysgu ac addysgu)

(Sutton Trust 2014)

1. (Pedagogical) content knowledge (PCK)
2. Quality of instruction
3. Classroom management / behaviour / control
4. Classroom climate / relationships / expectations
5. Beliefs (theory) about subject, learning & teaching

(Sutton Trust 2014)

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Cynlluniwch ddysgu!

Design some learning

- ▶ Mewn parau, cynlluniwch ffordd o gael rhywun i ddysgu:
- ▶ Sut mae taflu a dal.
- ▶ Sut i sgipio, hopian a neidio.
- ▶ Sut i wneud gêm gan ddefnyddio offer.
- ▶ Defnyddiwch un neu fwy o ymagweddau sy'n gysylltiedig gyda'r damcaniaethau a astudiwyd heddiw
- ▶ Dysgwch pâr arall.
- ▶ Ydy nhw yn gallu adnabod pa ymagweddau yr oeddech yn defnyddio.
- In pairs, design a way to get someone to learn:
- How to throw and catch.
- How to skip, hop and jump.
- How to make a game using some equipment.
- Use one or more approaches connected to the theoretical positions we have looked at.
- Teach another pair.
- See if they can identify what approaches you were using.

A Physical Literacy perspective

It is through physical 'embodiment' that humans 'create themselves as they interact with their surroundings'

(Whitehead, 2010:26).



- Affordance theory states that the world is perceived not only in terms of object shapes and spatial relationships but also in terms of object possibilities for action (affordances) — perception drives action. J. J. Gibson (1904-1979)



- We need to ensure that children are given the opportunities to experience a wide variety of affordances from early childhood to ensure good motor development.



Affordances

- | | |
|--|---|
| • Defnydd effeithiol o'r ardal tu allan i'r dosbarth | • Effective use of the outdoor areas that can be found beyond the indoor classroom. |
| • Creadigrwydd | • Creativity |
| • Perchnogaeth | • Personal ownership |

Cwblhau tasg

Complete task

Dysgu'n yr awyr agored

- ▶ Cynlluniwch ffordd o gael rhywun i ddysgu:
- ▶ Sut mae taflu a dal.
- ▶ Sut i sgipio, hopian a neidio.
- ▶ Sut i greu gêm gan ddefnddio offer.
- ▶ NEU
- ▶ Datblygwch syniad a geir o ddarllen am 'Darnau Rhydd', 'Leonardo', 'Cardiau Dysgu Awyr Agored', ac / neu SKIP

Outdoor learning

- Either design a way to get someone to learn:
- How to throw and catch.
- How to skip, hop and jump.
- How to make a game using some equipment.
- OR
- Develop an idea from reading about 'Loose Parts', 'Leonardo', 'Outdoor Learning Cards' and / or SKIP

Meyer a Land

- Notion that within specific disciplines there exist significant 'threshold concepts', leading to new and previously inaccessible ways of thinking about something (Meyer and Land, 2003).
- Concept - 'a unit of thought or element of knowledge that allows us to organize experience' Donald (2001) *Learning to Think: Disciplinary Perspectives*.
- Threshold concepts can be used to define potentially powerful transformative points in the student's learning experience. In this sense they may be viewed as the 'jewels in the curriculum'.
- Liminality –from not- knowing to knowing.
- Learning is hard.

Dyfyniad 'Beth yw dysgu?'

Definition 'What is learning?'

- Damcaniaeth o ddysgu gan ddefnyddio'r amgylchedd awyr agored.
- Ewch yn ôl i'r dyfyniad a chreuoch ar ddechrau'r sesiwn.
- (i) Pa ymagweddau damcaniaethol i chi'n gweld ynddynt?
- (ii) Mireiniwch eich diffiniad.
- (iii) Byddwch yn barod i readru i'r dosbarth.
- A theory of learning using the outdoor environment.
- Return to the definition you created at the very start of the session.
- (i) what theoretical positions do you see in them?
- (ii) re-define your definition.
- (iii) Be prepared to share with whole class.

Felly, sut rydym yn dysgu? So, how do we learn?

- | | |
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Is it fair to say that an effective sequence of lessons may well include all elements?

Llyfryddiaeth Bibliography

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