



Prifysgol Cymru
Y Drindod Dewi Sant
University of Wales
Trinity Saint David

Yr Athrofa
Centre for Education
Addysg i Gymru | Education for Wales



Partneriaeth Dysgu Proffesiynol **Yr Athrofa**
Yr Athrofa Professional Learning Partnership

Trawsnewid Addysg Gyda'n Gilydd Transforming Teaching Together

Dyfnhau Arfer: Mathemateg a Rhifedd

Deepening Practice: Mathematics and Numeracy

Sesiwn 9 – Damcaniaethau Addysg

Session 9 – Education Theories



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Beth yw'r Damcaniaethau Addysgu allweddol?

What are the key Teaching Theories?

- Ymddygiad
- Gwybyddiaeth
- Adeiladwaith
- Dyneiddiaeth
- Cysylltu
- Theori Dysgu Cymdeithasol

- Behaviorism
- Cognitivism
- Constructivism
- Humanism
- Connectivism
- Social Learning Theory

Ymddygiad

Mae ymddygiad yn gweld addysgu fel y broses o lunio ymddygiad dysgwyr trwy gyfarwyddyd strwythuredig, ailadrodd, atgyfnerthu, ac adborth, gyda'r athro yn chwarae rôl arweiniol ganolog.

- **Dysgu fel ymddygiad arsylwadwy**
- **Perthynas ysgogiad-ymateb**
- **Atgyfnerthu**
- **Cosb**
- **Ailadrodd ac Ymarfer**
- **Dull sy'n canolbwyntio ar yr athro**

Behaviorism

Behaviorism views teaching as the process of shaping learner behaviour through structured instruction, repetition, reinforcement, and feedback, with the teacher playing a central guiding role.

- **Learning as an observable behaviour**
- **Stimulus-Response relationship**
- **Reinforcement**
- **Punishment**
- **Repetition and Practice**
- **Teacher-centered approach**



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Gwybyddiaeth

Mae **gwybyddiaeth** mewn **addysgu** yn canolbwyntio ar sut mae **dysgwyr yn meddwl, deall, cofio a phrosesu gwybodaeth**. Mae dysgu yn cael ei ystyried fel proses feddyliol fewnol yn hytrach na dim ond newid mewn ymddygiad arsylwadwy.

- **Dysgu fel proses feddyliol**
- **Prosesu Gwybodaeth**
- **Gwybodaeth Flaenorol**
- **Dealltwriaeth dros gofio**
- **Defnyddio strategaethau**

Cognitivism

Cognitivism in teaching focuses on how learners **think, understand, remember, and process information**. Learning is viewed as an internal mental process rather than just a change in observable behaviour.

- **Learning as a mental process**
- **Information Processing**
- **Prior Knowledge**
- **Understanding over memorization**
- **Use of strategies**

Adeiladwaith

Mae **Adeiladwaith mewn addysg** yn theori dysgu sy'n pwysleisio bod dysgwyr yn adeiladu eu dealltwriaeth a'u gwybodaeth eu hunain **trwy brofiad, rhyngweithio a myfyrio**.

- **Dysgu fel adeiladu gweithredol**
- **Dull sy'n canolbwyntio ar y dysgwr**
- **Mae gwybodaeth flaenorol yn hanfodol**
- **Dysgu trwy Brofiad**
- **Rhyngweithio Cymdeithasol**

Constructivism

Constructivism in education is a learning theory that emphasizes that learners **actively construct their own understanding and knowledge** through experience, interaction, and reflection.

- **Learning as active construction**
- **Learner-centered approach**
- **Prior knowledge is essential**
- **Learning through Experience**
- **Social Interaction**



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Dyneiddiaeth

Mae **dyneiddiaeth mewn addysg** yn theori ddysgu sy'n canolbwyntio ar y **person cyfan**, gan bwysleisio twf personol, hunan-barch, emosiynau, a photensial y dysgwr. Mae dysgu yn cael ei ystyried fel ffordd o helpu unigolion i ddod yn **hunan-gyflawn ac yn ymreolaethol**.

- Canolbwyntiwrch ar y dysgwr cyfan
- Dysgwr-ganolog
- Hunan-wireddu
- Cymhelliant cynhenid
- Amgylchedd dysgu cadarnhaol

Humanism

Humanism in education is a learning theory that focuses on the **whole person**, emphasizing personal growth, self-esteem, emotions, and the learner's potential. Learning is seen as a way to help individuals become **self-fulfilled and autonomous**.

- Focus on the whole learner
- Learner-centered
- Self-actualization
- Intrinsic motivation
- Positive learning environment

Cysylltu

Mae **Cysylltu mewn addysg** yn theori dysgu fodern sy'n esbonio sut mae dysgu yn digwydd mewn byd **digidol, rhwydweithiol**. Mae'n pwysleisio rôl technoleg, cysylltiadau, a mynediad at wybodaeth yn hytrach na gwybodaeth unigol yn unig.

- **Dysgu fel ffurfio cysylltiadau**
- **Mae gwybodaeth yn cael ei dosbarthu**
- **Rôl technoleg**
- **Mae dysgu yn barhaus ac yn newid**

Connectivism

Connectivism in education is a modern learning theory that explains how learning happens in a **digital, networked world**. It emphasizes the role of technology, connections, and access to information rather than just individual knowledge.

- **Learning as forming connections**
- **Knowledge is distributed**
- **Role of technology**
- **Learning is continuous and changing**

Theori Dysgu Cymdeithasol

Mae **Theori Dysgu Cymdeithasol** mewn addysg yn esbonio sut mae dysgwyr yn caffael gwybodaeth, sgiliau ac ymddygiadau trwy **arsylwi a rhyngweithio ag eraill**. Mae'n pwysleisio cyd-destun cymdeithasol dysgu, nid profiad unigol yn unig.

- **Dysgu trwy arsylwi**
- **Rôl modelau**
- **Dynwared a Modelu**
- **Sylw**

Social Learning Theory

Social Learning Theory in education explains how learners acquire knowledge, skills, and behaviors **by observing and interacting with others**. It emphasizes the social context of learning, not just individual experience.

- **Learning through observation**
- **Role of models**
- **Imitation and Modelling**
- **Attention**



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Pwy oedd y damcaniaethwyr mwyaf dylanwadol yn addysg?

Who were the most influential theorists in education?

JEAN PIAGET

Lev Vygotsky

B.F. Skinner

John Dewey

Jerome Bruner

Howard Gardner



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Gwaith Ymchwil/Research

Chwiliwch am ffeithiau am y damcaniaethwyr mwyaf dylanwadol yn addysg a sut mae'r damcaniaethau rydyn ni newydd edrych arnynt yn plethu.

Research facts about the most influential theorists in education and how the theories we've just looked at intertwine.



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Matrics Theori Cymharu a Chyferbynnu

Creu tabl cymharu o ddamcaniaethau allweddol:

Ymddygiad
Gwybyddiaeth
Adeiladwaith
Dyneiddiaeth
Dysgu Cymdeithasol
Cysylltu

Cymharu: rôl yr athro, rôl y dysgwr, asesiad, cryfderau, cyfyngiadau.

Compare-and-Contrast Theory Matrix

Create a comparison table of key theories:

Behaviorism
Cognitivism
Constructivism
Humanism
Social Learning
Connectivism

Compare: **role of teacher, role of learner, assessment, strengths, limitations**

Theory	Role of the Teacher	Role of the Learner	Assessment	Strengths	Limitations
<u>Behaviorism</u>					
<u>Cognitivism</u>					
<u>Constructivism</u>					
<u>Humanism</u>					
<u>Social Learning</u>					
<u>Connectivism</u>					



<u>Damcaniaeth</u>	<u>Rôl yr Athro</u>	<u>Rôl y Dysgwr</u>	<u>Asesu</u>	<u>Cryfderau</u>	<u>Cyfngiadau</u>
<u>Ymddygiadaeth (Behaviorism)</u>					
<u>Gwybyddiaeth (Cognitivism)</u>					
<u>Adeiladaeth (Constructivism)</u>					
<u>Dyneiddiaeth (Humanism)</u>					
<u>Dysgu Cymdeithasol (Social Learning)</u>					Llai o ffocws ar brosesau meddwl unigol
<u>Cysylltiaeth (Connectivism)</u>					Dibyniaeth uchel ar dechnoleg a mynediad iddi



Compare-and-Contrast Theory Matrix (Education)

<u>Theory</u>	<u>Role of the Teacher</u>	<u>Role of the Learner</u>	<u>Assessment</u>	<u>Strengths</u>	<u>Limitations</u>
<u>Behaviorism</u>	Instructor and controller of learning; delivers content and reinforcement	Passive recipient; responds to stimuli	Tests, quizzes, observation of behaviour	Clear structure; effective for basic skills, routines, behaviour management	Ignores thinking and emotions; limited creativity and critical thinking
<u>Cognitivism</u>	Organizer and guide; structures content to support thinking	Active processor of information	Tasks that test understanding, explanations, problem-solving	Focuses on understanding and memory; builds on prior knowledge	Less attention to social and emotional factors
<u>Constructivism</u>	Facilitator and guide; supports inquiry	Active constructor of knowledge	Projects, portfolios, discussions, reflection	Encourages deep understanding and independence	Can lack structure; time-consuming
<u>Humanism</u>	Supporter, mentor, facilitator	Self-directed, reflective learner	Self-assessment, reflection, personal progress	Supports motivation, wellbeing, learner confidence	May lack academic rigour; difficult to standardise
<u>Social Learning</u>	Role model and facilitator	Observer and collaborator	Observation, peer assessment, participation	Highlights importance of modelling and collaboration	Less focus on individual thinking processes
<u>Connectivism</u>	Curator and connector of resources	Networked, independent learner	Digital tasks, problem-solving, real-world application	Highly relevant to digital age; promotes adaptability	Relies heavily on access to technology



Matrics Cymharu a Chyferbynnu Damcaniaethau (Addysg)

Damcaniaeth	Rôl yr Athro	Rôl y Dysgwr	Asesu	Cryfderau	Cyfyngiadau
<u>Ymddygiadaeth (Behaviorism)</u>	Cyfarwyddwr a rheolwr y dysgu; cyflwyno cynnwys ac atgyfnerthu	Dysgwr goddefol; ymateb i ysgogiadau	Profion, cwisiau, arsylwi ymddygiad	Strwythur clir; effeithiol ar gyfer sgiliau sylfaenol, arferion a rheoli ymddygiad	Anwybyddu meddwl ac emosiynau; creadigrwydd a meddwl beirniadol cyfyngedig
<u>Gwybyddiaeth (Cognitivism)</u>	Trefnydd a thywysydd; strwythuro cynnwys i gefnogi meddwl	Prosesydd gwybodaeth gweithredol	Tasgau sy'n profi dealltwriaeth, esboniadau, datrys problemau	Canolbwyntio ar ddealltwriaeth a chof; adeiladu ar wybodaeth flaenorol	Llai o sylw i ffactorau cymdeithasol ac emosiynol
<u>Adeiladaeth (Constructivism)</u>	Hwylusydd a thywysydd; cefnogi ymholi	Adeiladydd gwybodaeth gweithredol	Prosiectau, portffolios, trafodaethau, myfyrio	Annog dealltwriaeth ddofn ac annibyniaeth	Gall ddiffyg strwythur; cymryd llawer o amser
<u>Dyneiddiaeth (Humanism)</u>	Cefnogwr, mentor, hwylusydd	Dysgwr hunan-gyfeiriedig, myfyriol	Hunanasesu, myfyrio, cynnydd personol	Cefnogi cymhelliant, lles a hyder dysgwyr	Gall ddiffyg trylwyredd academaidd; anodd ei safoni
<u>Dysgu Cymdeithasol (Social Learning)</u>	Model rôl a hwylusydd	Arsylwr a chydweithiwr	Arsylwi, asesu gan gyfoedion, cyfranogiad	Pwysleisio modelu a chydweithio	Llai o ffocws ar brosesau meddwl unigol
<u>Cysylltiaeth (Connectivism)</u>	Curadur a chysylltydd adnoddau	Dysgwr rhwydweithiol ac annibynnol	Tasgau digidol, datrys problemau, cymhwyso mewn sefyllfaoedd go iawn	Perthnasol iawn i'r oes ddigidol; hyrwyddo addasrwydd	Dibyniaeth uchel ar dechnoleg a mynediad iddi

