



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

ECCE4001

Pwy ydw i?: Archwilio Hunaniaeth Broffesiynol

ECCE4001

Who Am I?: Exploring Professional Identity

Thema 5: Meddwl Beirniadol ac Arfer Proffesiynol
Theme 5: Critical Thinking and Professional
Practice

Trawsnewid Addysg, Trawsnewid Bywydau
Transforming Education, Transforming Lives

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Cynnwys y Thema

Theme Content

- Beth yw Meddwl Beirniadol?
- Meddwl Beirniadol ac Arfer Proffesiynol
- Meddwl Beirniadol ac Arfer Adfyfyriol
- Meddwl Beirniadol ar gyfer eich Astudiaethau
- What is Critical Thinking?
- Critical Thinking & Professional Practice
- Critical Thinking & Reflective Practice
- Critical Thinking for your Studies

Beth yw Meddwl Beirniadol?

What is Critical Thinking?

Pwynt Trafod

Discussion Point

Beth ydych chi'n credu yw
ystyr meddwl beirniadol?

*What do you understand
critical thinking to mean?*

Ydych chi wedi clywed y term
yn cael ei ddefnyddio?

Have you heard it used?

Os felly, ym mha gyd-destun?

If so, in what context?

Beth yw Meddwl Beirniadol?

What is Critical Thinking?

- Mae Cotterel (2023) yn rhoi nifer o atebion i'r cwestiwn hwn
- 'Mae meddwl beirniadol yn broses gymhleth o ystyried sy'n cynnwys ystod eang o sgiliau ac agweddau. Mae'r rhain yn cynnwys':
- Cotterel (2023) gives a number answers to this question
- 'Critical thinking as a process Critical thinking is a complex process of deliberation which involves a wide range of skills and attitudes. These include':

(Cotterel, 2023. p.2)

Meddwl Beirniadol yw...

Critical Thinking is.....

1. 'nodi eich safbwyntiau, dadleuon a chasgliadau chi eich hun a phobl eraill';
2. 'gwerthuso'r dystiolaeth ar gyfer safbwyntiau amgen';
3. 'pwyso a mesur dadleuon a thystiolaeth wrthwynebol yn deg';

(Cotterel, 2023. t.2)

1. 'identifying your own and other people's positions, arguments and conclusions';
2. 'evaluating the evidence for alternative points of view';
3. 'weighing up opposing arguments and evidence fairly';

(Cotterel, 2023. p.2)

Meddwl Beirniadol yw...

Critical Thinking is.....

4. ‘dewis **yn synhwyrol** o ffynonellau, tystiolaeth ac enghreifftiau i gefnogi eich achos’;

5. ‘gallu darllen rhwng y llinellau, gweld y tu ôl i arwynebau, a nodi **rhagdybiaethau** ffals neu annheg’;

4. ‘selecting **judiciously** from sources, evidence and examples to support your case’;

5. ‘being able to read between the lines, seeing behind surfaces, and identifying false or unfair **assumptions**’;

(Cotterel, 2023. t.2)

(Cotterel, 2023. p.2)

Meddwl Beirniadol yw...

Critical Thinking is.....

6. 'adnabod technegau a ddefnyddir i wneud rhai safbwyntiau yn fwy apelgar nag eraill, megis rhesymeg ffals a chynlluniau perswadiol';
7. 'adfyfrio ar faterion mewn ffordd strwythuredig, gan ddefnyddio **rhesymeg** a mewnwelediad';

(Cotterel, 2023. t.2)

6. 'recognising techniques used to make certain positions more appealing than others, such as false logic and **persuasive devices**';
7. 'reflecting on issues in a structured way, bringing **logic** and insight to bear';

(Cotterel, 2023. p.2)

Meddwl Beirniadol yw...

Critical Thinking is.....

8. 'dod i gasgliadau (gan gynnwys penderfyniadau, dyfarniadau neu argymhellion) yn seiliedig ar resymau a thystiolaeth rhesymegol dderbyniol, a **chasgliad** dilys';

(Cotterel, 2023. t.2)

8. 'drawing conclusions (including decisions, judgements or recommendations) based on logically acceptable reasons and evidence, and valid **inference**';

(Cotterel, 2023. p.2)

Meddwl Beirniadol yw...

Critical Thinking is.....

9. ‘**cyfosod** gwybodaeth: dwyn ynghyd eich barn am y dystiolaeth, a’i gyfosod i ffurfio eich safbwynt newydd eich hun’;

10. ‘cyflwyno safbwynt mewn ffordd strwythuredig, glir a rhesymegol sy’n argyhoeddi eraill’.

(Cotterel, 2023. t.2)

9. ‘**synthesising** information: drawing together your judgements of the evidence, synthesising these to form your own new position’;

10. ‘presenting a point of view in a structured, clear, well-reasoned way that convinces others’.

(Cotterel, 2023. p.2)

NID YW Meddwl yn Feirniadol...

Critical Thinking is NOT

- yn fater o farn yn unig,
 - nac yn restr o ffeithiau,
 - nac yn drafodaeth, siarad am bwnc, 'barn am',
 - nac yn beth hoffwn ni fod yn wir,
 - na chwaith yn rhoi 'unrhyw' reswm i gefnogi penderfyniad.
- just opinion,
 - nor lists of facts,
 - nor discussion, talking about a topic, 'thoughts on',
 - nor what we want to be true,
 - nor giving just 'any' reason to support a decision.

(Cotterel, 2023. t.2)

(Cotterel, 2023. p.2)

NID Meddwl Beirniadol mo'r rhain...

Rydym i gyd yn cytuno, felly mae'n rhaid ein bod yn gywir

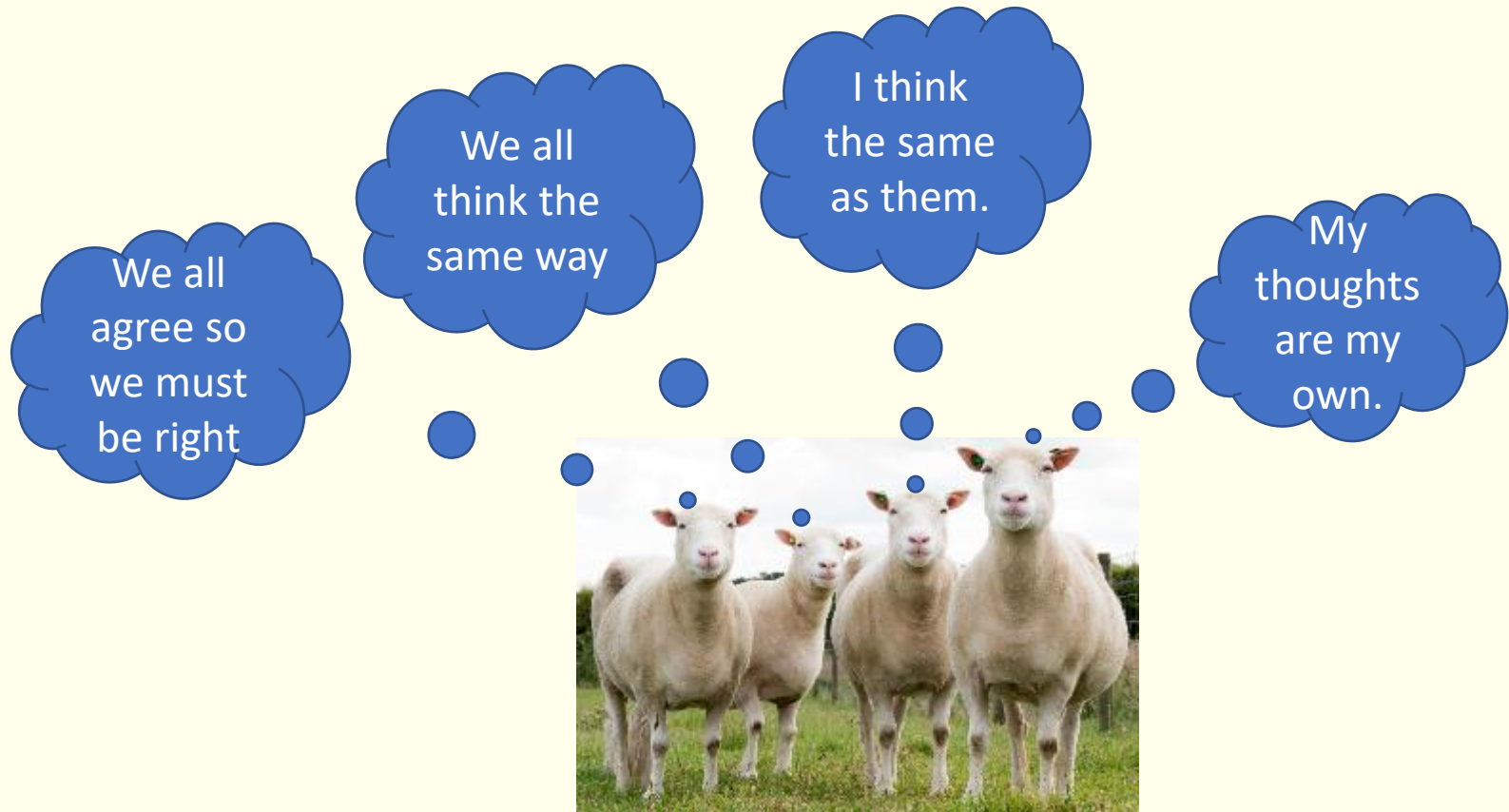
Rydym i gyd yn meddwl yn yr un ffordd

Rwyf o'r un farn â nhw

Mae gen i fy marn fy hun



Critical Thinking is NOT



Meddwl Beirniadol ac Arfer Proffesiynol

Critical Thinking and Professional Practice

- Mae meddwl beirniadol yn cynnwys “dadansoddi, gwneud casgliadau, gwerthuso, esbonio a metawybyddiaeth”, ac mae’n dechrau gyda’r **athrawon yn ei gymhwyso i’w harferion eu hunain.**
- ‘Critical thinking includes “analysis, inference, evaluation, explanation, and metacognition” and begins with **teachers applying it to their own practice**’.

(Cyngor Prydeinig, Dim Dyddiad)

(British Council, No Date)

Meddwl Beirniadol ac Arfer Proffesiynol

Critical Thinking and Professional Practice

- I fyfyrwyr addysg ac ymarferwyr y dyfodol, "mae meddylfryd a sgiliau meddwl beirniadol yn arbennig o bwysig er mwyn eu galluogi i ymgymryd â hunan-adfyfyrio, ac i fod yn fodel rôl o'r agwedd hon".
- For education students and future practitioners, "the mindset and skills of critical thinking are particularly important to enable them to engage in self-reflection, and to role model this outlook".

(Barrow & Westrup, 2023)

Meddwl Beirniadol ac Arfer Proffesiynol

Critical Thinking and Professional Practice

- 'mae arbenigedd yn datblygu trwy brofiad ac yn galluogi ymarferwyr profiadol i ddefnyddio meddwl beirniadol mewn ffordd reddfol i **gefnogi gwneud penderfyniadau effeithiol ac ymatebol a nodi pryderon neu ddirywiad yng nghyflwr defnyddwyr gwasanaeth yn gynnar yn ogystal â lleihau'r risg o gamgymeriadau'**

(Payne, 2015 *dyfynwyd yn* Barnard *et al* 2023, dim tudalen)

- 'expertise develops through experience and enables experienced practitioners to utilise critical thinking in an intuitive way to **support effective and responsive decision-making and early identification of concerns or deterioration of service users' condition as well as decreasing the chance of error'**

(Payne, 2015 *cited in* Barnard *et al* 2023, no page)

Meddwl Beirniadol ac Arfer Adfyfyriol

Critical Thinking & Reflective Practice

- Mae Colley et al (2012) wedi cysylltu'r ddwy elfen allweddol hyn o arfer proffesiynol yn eu herthygl gyfnodolyn o'r enw: 'Reflection: A Key Component To Thinking Critically'
- Colley *et al* (2012) have linked these two key elements of professional practice in their journal article entitled: 'Reflection: A Key Component To Thinking Critically'

(Colley *et al*, 2012)

Meddwl Beirniadol ac Arfer Adfyfyriol

Critical Thinking & Reflective Practice

- Yn eu hymchwil fe wnaethant 'ddefnyddio sawl awgrym i feithrin sgiliau adfyfyrio myfyrwyr ac i ddatblygu eu dealltwriaeth ohonynt eu hunain fel dysgwyr'.

(Colley et al, 2012, t.2)

- In their research they 'used multiple prompts to foster students' reflection and to develop their understanding of themselves as learners'.

(Colley et al, 2012, p.2)

Meddwl Beirniadol ac Arfer Adfyfyriol

Critical Thinking & Reflective Practice

- Maen nhw'n mynd ymlaen i ddadlau y gall adfyfyrio 'gynnwys gwneud penderfyniadau, datrys problemau, ymholiad arbrofol, neu ymchwilio'.

(Colley et al, 2012, t.4)

- Mae'r rhain i gyd yn sgiliau meddwl beirniadol

- They go on to argue that reflection 'can involve decision making, problem solving, experimental inquiry, or investigation'.

(Colley et al, 2012, p.4)

- All of these are critical thinking skills

Meddwl Beirniadol ac Arfer Adfyfyriol

Critical Thinking & Reflective Practice

- Mae'r un neges yn glir o'r sector hyfforddi athrawon
- Mae Beavers et al (2017) wedi cyhoeddi papur o'r enw: 'Fostering critical and reflective thinking in an authentic learning situation'
- The same message is clear from the teacher training sector
- Beavers *et al* (2017) have published a paper titled: 'Fostering critical and reflective thinking in an authentic learning situation'

Meddwl Beirniadol ac Arfer Adfyfyriol

Critical Thinking & Reflective Practice

- Roedd eu hymchwil yn cynnwys 10 o fyfyrwyr addysg plentyndod cynnar ac fe'i cynlluniwyd yn rhannol 'i benderfynu a oedd profiadau adfyfyriol a hwyluswyd yn cael effaith ar sgiliau meddwl beirniadol mesuradwy myfyrwyr'.

(Beavers *et al*, 2017, t. 5)

- Their research involved 10 early childhood education students and was partly designed 'to determine if facilitated reflective experiences had an impact on students' measurable critical thinking skills'.

(Beavers *et al*, 2017, p. 5)

Meddwl Beirniadol ac Arfer Adfyfyriol

Critical Thinking & Reflective Practice

- Yn ystod yr ymchwil, anogwyd myfyrwyr i gymryd rhan mewn 'profiadau adfyfyrio yn feirniadol'

(Beavers et al, 2017, t3)

- Yna mesurodd yr ymchwil effeithiau'r gweithgareddau hyn

- During the research students were encouraged to engage in 'critical reflection experiences' (Beavers *et al*, 2017, p3)
- The research then measured the effects of these activities

Meddwl Beirniadol ac Arfer Adfyfyriol

Critical Thinking & Reflective Practice

- Maent yn mynd ymlaen i ddadlau: 'Mae addysgu sgiliau beirniadol ac adfyfyriol yn fwriadol mewn addysg athrawon yn hanfodol i feithrin patrymau arferion cynaliadwy'. (Ibid, t.26)
- They go on to argue that: 'Intentionally teaching critical and reflective skills in teacher education is vital to nurturing sustainable patterns of practices'. (Ibid, p.16)

Meddwl Beirniadol ar gyfer Myfyrwyr

Critical Thinking For Students

- Rydym wedi treulio ychydig o amser yn edrych ar bwysigrwydd meddwl beirniadol ar gyfer y sectorau gofal plant ac addysg
- Byddwn nawr yn dychwelyd at y rôl y mae meddwl beirniadol yn ei chwarae yng nghydestun eich astudiaethau academiaidd
- We have spent a little time looking at the importance of critical thinking for the childcare and education sectors
- We will now return to the role that critical thinking plays and your academic studies

Rôl a Phwysigrwydd mewn Addysg Uwch (AU)

Role and Importance in HE

- Mae meddwl beirniadol yn nodwedd ddiffiniol o astudiaeth lefel prifysgol ac yn sail i ddysgu dyfnach
- Mae'n hanfodol ar gyfer llwyddiant academaidd, yn enwedig ar gyfer cyflawni graddau uwch a symud y tu hwnt i waith disgrifiadol
- Critical thinking is a defining feature of university-level study and underpins deeper learning
- It is essential for academic success, particularly for achieving higher grades and moving beyond descriptive work

(Cottrell, 2023)

Rôl a Phwysigrwydd mewn Addysg Uwch (AU)

Role and Importance in HE

- Fe'i cydnabyddir yn eang fel un o sgiliau craidd graddedigion sy'n gysylltiedig â chyflogadwyedd ac arfer proffesiynol
- Maent wedi'u hymgorffori ar draws disgyblaethau ac yn ofynnol ar lefel israddedig ac ôl-raddedig
- Widely recognised as a core graduate skill linked to employability and professional practice
- They are embedded across disciplines and required at both undergraduate and postgraduate levels

(Cottrell, 2023)

Yr hyn mae Meddwl Beirniadol yn ei Gynnwys (Prosesau Craidd)

What Critical Thinking Involves (Core Processes)

- Gwneud dyfarniadau rhesymegol yn seiliedig ar ddehongli, dadansoddi a chyfosod tystiolaeth
- Gwerthuso gwybodaeth a dadleuon yn hytrach na'u derbyn ar eu golwg
- Making reasoned judgements based on interpreting, analysing and synthesising evidence
- Evaluating information and arguments rather than accepting them at face value

(Cottrell, 2023)

Yr hyn mae Meddwl Beirniadol yn ei Gynnwys (Prosesau Craidd)

What Critical Thinking Involves (Core Processes)

- Cwestiynu rhagdybiaethau a honiadau, gan gynnwys profi cryfder tystiolaeth
- Cymharu safbwyntiau i ddatblygu casgliadau gwybodus
- Symud y tu hwnt i ddisgrifiad i ddadansoddi, gwerthuso a barnu (meddylfryd “beth felly?”)
- Questioning assumptions and claims, including testing the strength of evidence
- Comparing perspectives and viewpoints to develop informed conclusions
- Moving beyond description to analysis, evaluation and judgement (“so what?” thinking)

(Cottrell, 2023)

Sgiliau Allweddol sydd eu Hangen

Key Skills Needed

- Darllen beirniadol – dadansoddi a chwestiynu ffynonellau gwybodaeth
- Ysgrifennu beirniadol – adeiladu ac amddiffyn dadleuon gan ddefnyddio tystiolaeth
- Datblygu dadleuon – ffurfio safbwyntiau annibynnol, sy'n seiliedig ar dystiolaeth
- Critical reading – analysing and questioning sources of information
- Critical writing – constructing and defending arguments using evidence
- Argument development – forming independent, evidence-based viewpoints

(Cottrell, 2023)

Sgiliau Allweddol sydd eu Hangen

Key Skills Needed

- Cyfosod – integreiddio ffynonellau lluosog yn ddadleuon cydlynol
- Gwerthuso tystiolaeth – barnu dibynadwyedd, dilysrwydd a pherthnasedd
- Synthesis – integrating multiple sources into coherent arguments
- Evaluation of evidence – judging reliability, validity and relevance

(Cottrell, 2023)

Nodweddion Unigolyn sy'n Meddwl yn Feirniadol

Characteristics of a Critical Thinker

- Yn cadw meddylfryd agored a gwrthrychol wrth ystyried syniadau
- Yn osgoi ailadrodd syniadau pobl eraill; yn hytrach, maent yn ffurfio barn annibynnol
- Maintains an open and objective mindset when considering ideas
- Avoids simply repeating others' ideas; instead forms independent judgments

(Cottrell, 2023)

Nodweddion Unigolyn sy'n Meddwl yn Feirniadol

Characteristics of a Critical Thinker

- Dangos cyfiawnhad rhesymol dros gasgliadau a gyrhaeddwyd
- Yn dangos parodrwydd i herio rhagdybiaethau ac ymgysylltu â chymhlethdodau
- Demonstrates reasoned justification for conclusions reached
- Shows willingness to challenge assumptions and engage with complexity

(Cottrell, 2023)

Ei ddefnydd mewn Arfer Academaidd

Application in Academic Practice

- Darllen a dadansoddi llenyddiaeth academaidd
- Ysgrifennu traethodau ac aseiniadau
- Cymryd rhan mewn trafodaethau a gwaith grŵp
- Yn cynnwys adeiladu dadleuon wedi'u cefnogi gan dystiolaeth ac ysgolheictod
- Reading and analysing academic literature
- Writing essays and assignments
- Participating in discussion and group work
- Involves constructing arguments supported by evidence and scholarship

(Cottrell, 2023)

Ei Ddefnydd mewn Ymarfer Academaidd

Application in Academic Practice

- Helpu myfyrwyr i adnabod rhesymu gwan a dadleuon diffygiol mewn ffynonellau
- Annog dysgu annibynnol ac ymreolaeth ddeallusol
- Helps students identify weak reasoning and flawed arguments in sources
- Encourages independent learning and intellectual autonomy

(Cottrell, 2023)

Pwysigrwydd Cyffredinol

Overall Importance

- Nid sgil unigol yw meddwl beirniadol yn AU y DU ond clwstwr o brosesau gwybyddol uwch
- Mae'n canolbwyntio ar ddadansoddi, gwerthuso, cyfosod a dyfarnu annibynnol
- Mae disgwyl i fyfyrwyr feddwl yn feirniadol, a chaiff ei addysgu a'i asesu'n benodol yn rhan o raglenni prifysgol, yn enwedig ar Lefelau 5 a 6.
- Mae'n chwarae rhan hanfodol mewn cyflawniad academiaidd a chyflogadwyedd yn y byd go iawn
- Critical thinking in UK HE is not a single skill but a cluster of higher-order cognitive processes
- It centres on analysis, evaluation, synthesis, and independent judgement
- It is explicitly expected, taught, and assessed across university programmes particularly at Levels 5 & 6
- It plays a crucial role in both academic achievement and real-world employability

(Cottrell, 2023)

Chwe Chwestiwn Meddwl Beirniadol

Six Critical Thinking Questions

- Wrth ymchwilio ar gyfer eich astudiaethau, gallwch ddefnyddio'r chwe chwestiwn isod:
 - Pwy?
 - Beth?
 - Pam?
 - Pryd?
 - Ble?
 - Sut?
 - Gelwir hefyd yn 'Y Chwe Chwestiwn'
- When researching for your learning you can use these six questions:
 - Who?
 - What?
 - Why?
 - When?
 - Where?
 - How?
 - Known as 5 Ws and an H.

Pwy? Who?

- Pwy ysgrifennodd e?
 - Ydyn nhw'n academydd, yn ymarferydd, yn newyddiadurwr ac ati.
 - Beth yw natur y sefydliad / ffynhonnell? (e.e. cyfnodolyn, llywodraeth, elusen ac ati)
- Who wrote it?
 - Are they an academic, a practitioner, a journalist etc.
 - What is the nature of the organisation /source? (e.g. journal, government, charity etc)

Beth?

What?

- Beth yw prif bwynt y papur / erthygl / paragraff / adroddiad / blog hwn?
- Beth mae hyn yn ei ychwanegu at ein gwybodaeth?
- Beth yw'r dystiolaeth mae'r awduron wedi'i defnyddio?
- Beth yw lefel academiaidd y ffynhonnell hon? (h.y. a yw'n briodol ar gyfer fy lefel astudio i)
- What is the main point of this paper/ article/ paragraph/ report/ blog?
- What does this add to our knowledge?
- What evidence have the authors used?
- What is the academic level of this source? (i.e. is it appropriate for my level of study)

Pam?

Why?

- Pam y cafodd ei ysgrifennu? (e.e. i addysgu, i ddwyn perswâd, i werthu cynnyrch, i newid arfer)
- Pam mae'n ddefnyddiol? (h.y. a yw hyn yn helpu i ateb fy aseiniad?)
- Why was it written? (e.g. to inform, to persuade, to sell a product, to change practice)
- Why is it useful? (i.e. does this help to answer my assignment?)

Pryd?

When?

- Pryd y cafodd ei ysgrifennu?
- Ydy'r cyd-destun wedi newid ers iddo gael ei ysgrifennu?
- Os yw'n ffynhonnell hŷn, a yw'n dal i fod yn berthnasol? (e.e. Maslow, Vygotsky ac ati)
- When was it written?
- Has the context changed since it was written?
- If it is an older source, is it still relevant? (e.g. Maslow, Vygotsky etc.)

Ble?

Where?

- Ble y cafodd ei gyhoeddi?
- Ble ddigwyddodd yr ymchwil?
- Ble mae'r ddeddfwriaeth / polisi yn berthnasol?
- Felly, a yw'n berthnasol i gyd-destun fy ymchwil?
- Where was this published?
- Where did the research take place?
- Where does the legislation/policy apply?
- Therefore, is it relevant to the context of my research?

Sut?

How?

- Sut alla i wirio atebion unrhyw rai o'r cwestiynau uchod?
- Sut ydw i'n gwybod y gallaf ymddiried yn y ffynhonnell? (h.y. pa mor ddibynadwy ydyw?)
- Os mai newyddiaduraeth ydyw, sut alla i ddod o hyd i'r ffynhonnell wreiddiol?
- How can I check the answers to any of the questions above?
- How do I know I can trust the source? (i.e. jhow reliable is it?)
- If it is journalism, how can I find the original source?

Astudiaeth dan Arweiniad

Guided Study

- Mewn grwpiau bach, gan ddefnyddio'r daflen '*5 Ws and H*', gwerthuswch y ffynhonnell ganlynol:
- Cofnodwch eich canfyddiadau ar y Daflen Astudiaeth dan Arweiniad
- In small groups, using the 5 Ws and an H handout, evaluate the following source:
- Record your findings on the Guided Study Sheet



Gweithgaredd Astudio Annibynnol

Independent Study Activity

- I'w gwblhau cyn y sesiwn nesaf:

Gan ddefnyddio eich nodiadau a'r wybodaeth o'r Thema hon, ysgrifennwch werthusiad o erthygl o'ch dewis.

Dylech bostio'ch gwerthusiad yn yr edefyn trafod perthnasol yn Fforwm y Modwl.

- To be completed before the next session:

Using your notes and the information from this Theme write an evaluation of an article of your choosing.

You should post your evaluation in the relevant discussion thread in the Module Forum.

Cyfeirnodau

- Barnard, A., Calabria, V. and Griffiths, L. (eds) (2023) Key themes in health and social care: A companion to learning. Second edition. Routledge. Available at: [e-Reader | Key Themes in Health and Social Care | A Companion to Learn](#) [Cyrchwyd Ddiwethaf 28/05/2025]
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- Colley, B.M., Bilics, A.R. and Lerch, C.M. (2012) 'Reflection: A key component to thinking critically' *The Canadian Journal For The Scholarship Of Teaching And Learning*, 3(1). Available at: [Reflection: A Key Component to Thinking Critically. – EBSCO](#) {Cyrchwyd Ddiwethaf 28/05/2026]
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