

ECAD5014C Ymchwilio i'r Dysgu: beth, sut a pham ydw i'n addysgu?

ECAD5014 Researching the learning: what, how and why am I teaching?



Sesiwn - Session 12

Yn y sesiwn hon byddwn yn edrych ar:

In this session we will look at:



Adolygu a thrafod 'Diwrnod Ymchwil'

Review and discuss the findings of the 'Research Day'



Ystyried eich camau nesaf (e.e. cyflwyno a dadansoddi'r data, ayyb.)

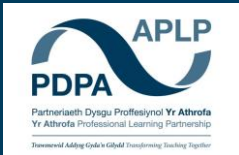
Consider your next steps (e.g., presenting and analysing your data, etc.)

Diwrnod Ymchwil yn yr Ysgol

Research Day in School



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



Trawsnewid Addysg, Trawsnewid Bywydau
Transforming Education, Transforming Lives

Myfyrio ar y 'Diwrnod Ymchwil'

Reflect on 'The Research Day'

- Defnyddio **cyfweliad** fel offeryn ymchwilio
- Gwerthuso'n feirniadol y broses
- Using **interviews** as a research tool
- Critically evaluate the process.



Adfyfyrrio ar 'Y Diwrnod Ymchwil'

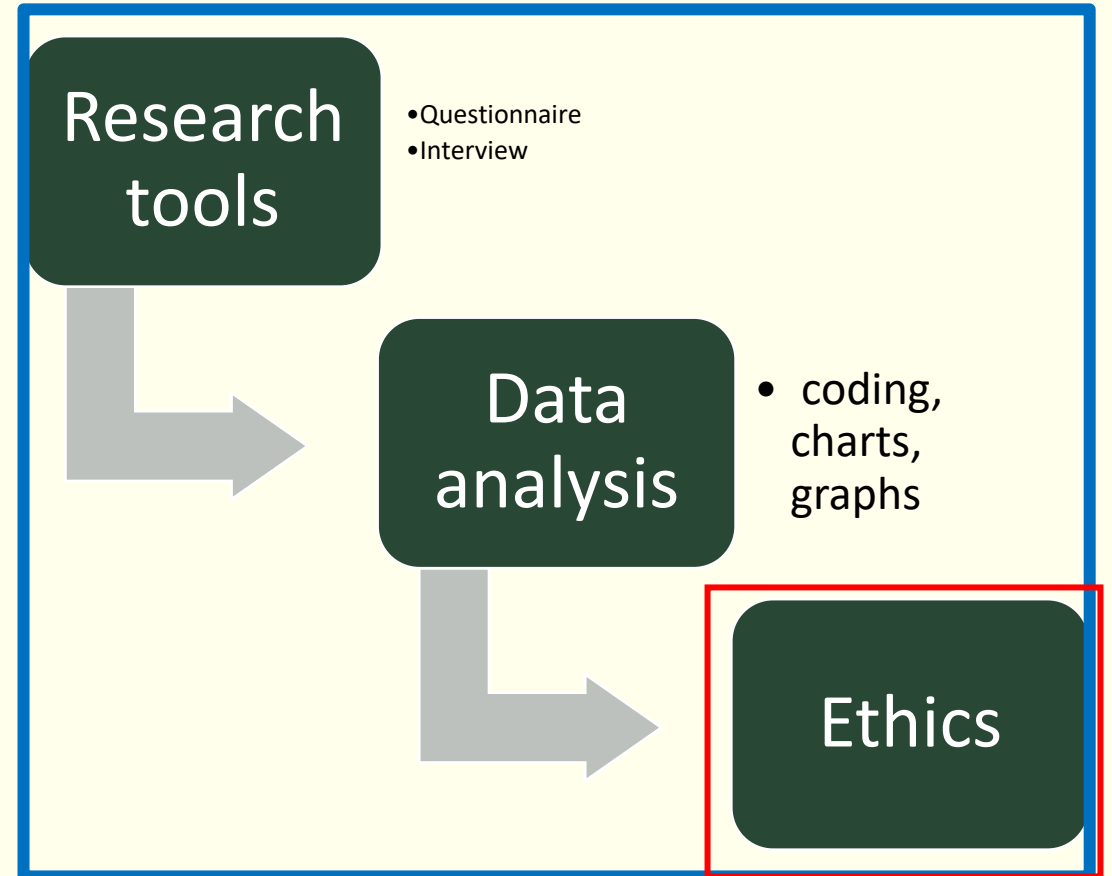
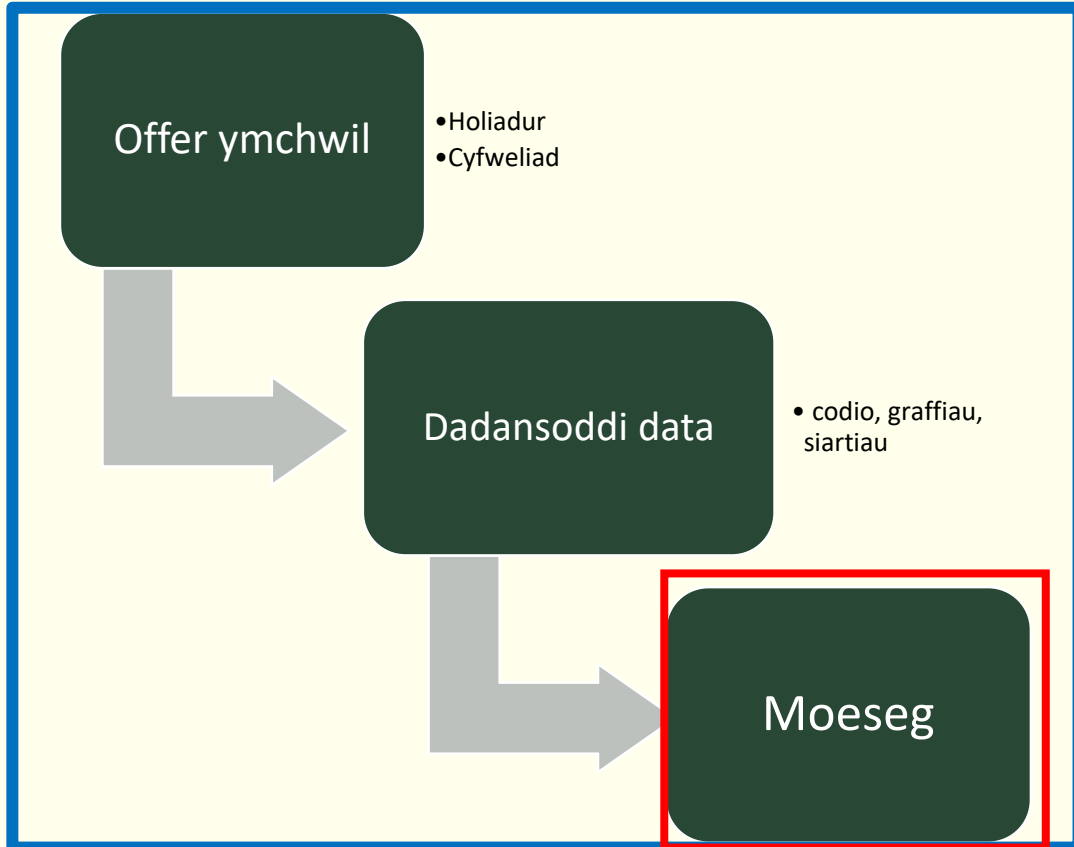
Reflecting on 'The Research Day'

- Defnyddio **holiadur** fel offeryn ymchwilio
- Gwerthuso'n feirniadol y broses
- Using a **questionnaire** as a research tool
- Critically evaluate the process

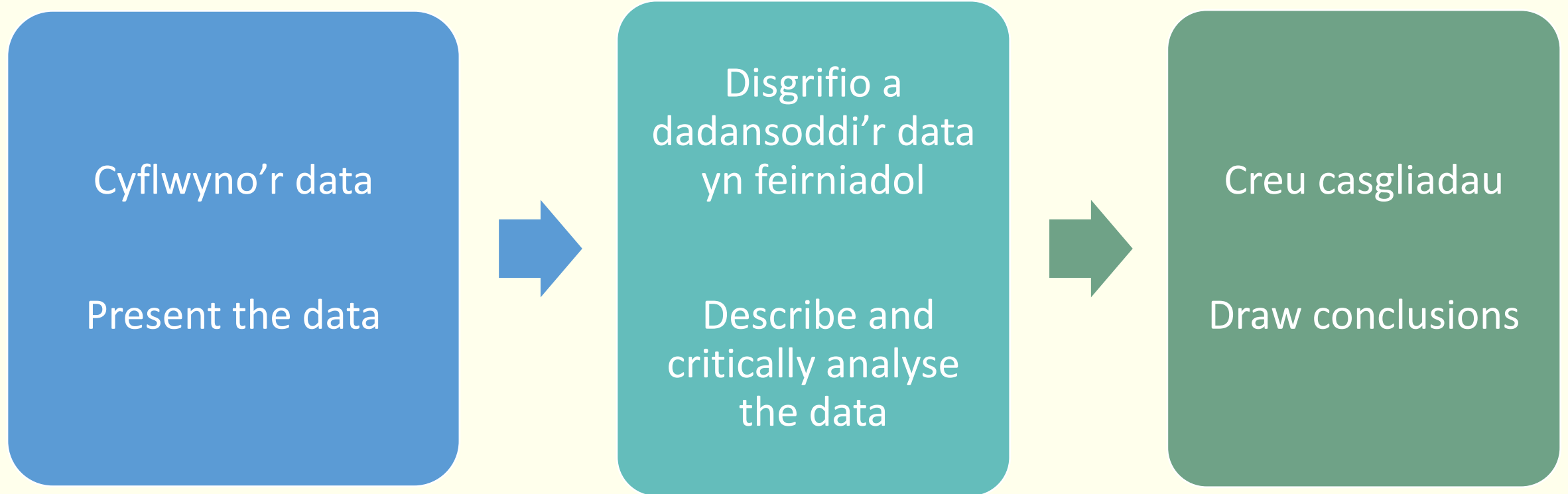


Methodoleg

Methodology



Y CAMAU NESAF – NEXT STEPS



1. Cyflwyno'r data – Present the data

Cwestiynau...

- Sut fath o ddata sydd gennych?
- Ble mae'r data?
- Beth sydd angen ei wneud gyda'r data?

Questions...

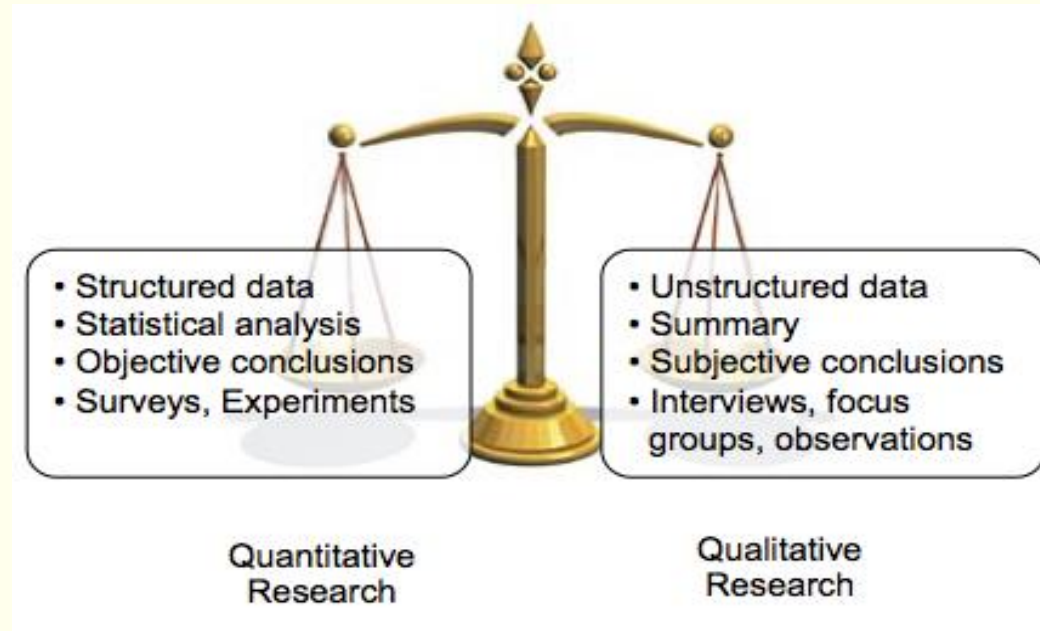
- What type of data do you have?
- Where is the data?
- What do you need to do to the data?



Data...

- Data Meintiol
- Data Ansoddol

- Quantitative data
- Qualitative data

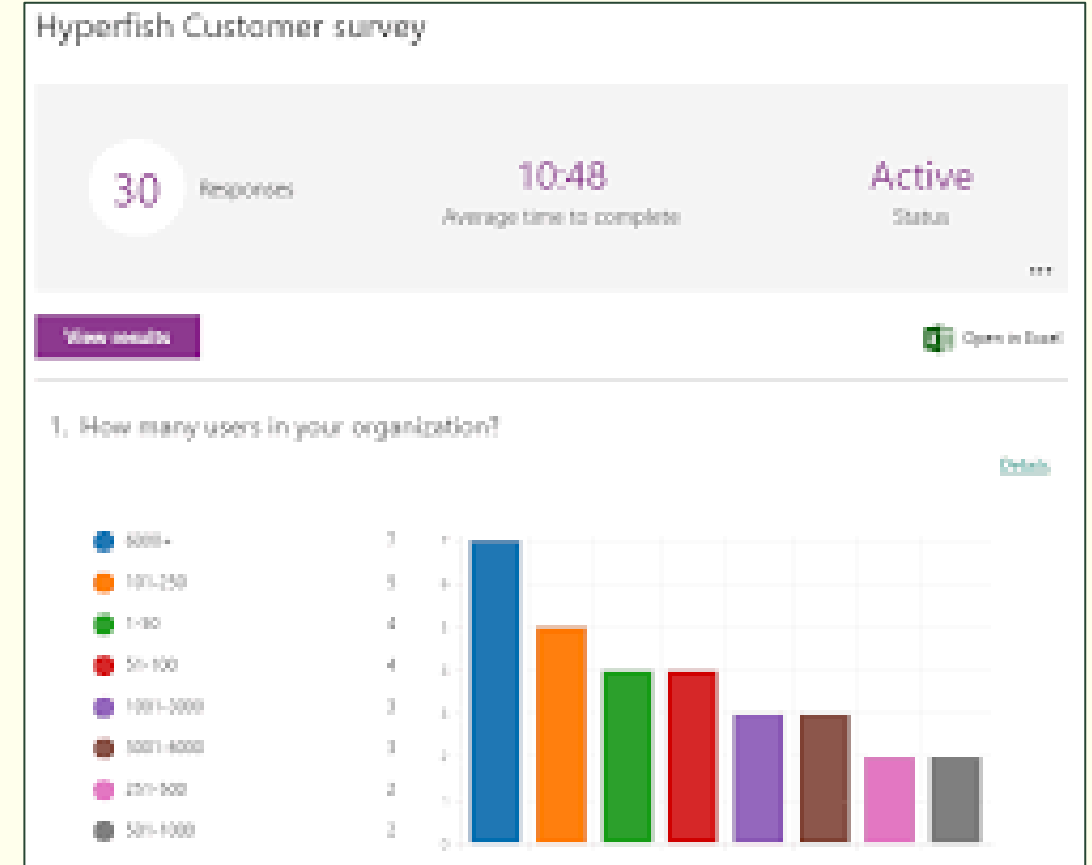


Microsoft Forms



- <https://www.youtube.com/watch?v=P1caQg9vw04>
- To review the responses in Microsoft Forms 1.5mins

Enghreifftiau Examples



Tasg 1

- Edrychwch ar ymatebion eich holiadur.
- Sut mae'r data wedi cael ei gyflwyno?
- Beth mae'r data yn ei ddangos/awgrymu?



Task 1

- Look at the questionnaire responses.
- How is the data presented?
- What does the data indicate/suggest?

Beth am y data ansoddol?

What about the qualitative data?

16. Please explain your choice.

2 Responses

ID ↑	Name	Responses
1	anonymous	Focus group teaching <u>maximises the progression of learners</u> in the 'bubble'. Learners gain better quality and quantity feedback in focus groups, in comparison to whole class teaching. I am also able to plan future lessons more effectively as I am aware of the learning 'gaps'.
2	anonymous	More time to explain, able to sit for longer periods with periods who do not understand, identify early misconceptions before completing whole task, incorrectly

Data Cyfweiliad

Interview data

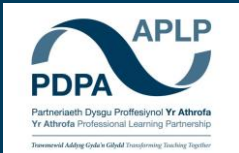
Data ansoddol
Qualitative data

Gwrando ar y recordiad
Listen to the recording

Trawsgrifio'r cyfweiliad
Transcribing the interview



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Partneriaeth Dysgu Proffesiynol Yr Athrofa
Yr Athrofa Professional Learning Partnership
Transforming Addysg Cymru's Global Transforming Teaching Together

Trawsnewid Addysg, Trawsnewid Bywydau
Transforming Education, Transforming Lives

Appendix D – Year 5 Interview Transcript

Learner Response	Do you have more feedback in focus groups, or in whole class teaching?
A	We have more feedback in focus groups. So the other day we were doing this work..I can't remember what it was, but sir picked out X's book and my book and compared them and gave us like feedback. Neve works really hard and focusing all the time and I get distracted really easily and then basically what we did was, we looked at all the feedback.
B	It can sometimes get shown though in small groups too, it just depends what we are doing.
C	I personally think that sir has more opportunity to give feedback in whole class because he can just say to everyone at once, instead of going round of keep saying the same thing.
D	I think in small groups it can be a bit chaotic because sir is trying to see every group and it all gets a bit crazy.
E	Whole class. (In reply to Learner D) Yeah its like being in a zoo!

Tasg 2

- Gwrandewch ar eich cyfweliad.
- Trawsgrifiwch ychydig o'r cyfweliad.
- Beth mae'r data yn ei awgrymu?

Task 2

- Listen to your interview recording.
- Transcribe some of the interview.
- What does the data suggest?



Cam 2

Dadansoddi'r data

Step 2

Analyse the data

Holiaduron – data meintiol

- Beth mae'r data yn ei ddangos?
- Ydy'r data yn pwysleisio rhywbeth? Sut?
- A oes unrhywbeth anghyffredin/ diddorol?
- A yw'r data yn cydfynd neu'n gwrthddweud yr hyn a ddywed y llenyddiaeth?

Questionnaires – quantitative data

- What does the data suggest?
- Does the data highlight something? What?
- Is there anything unusual or interesting?
- Does the data reflect or contradict the literature findings?



Cam 2

Dadansoddi'r data

Step 2

Analyse the data

Cyfweliadau – ansoddol

- Data craidd
- Trawsgrifiadau cyfweliadau
- Codio y data (themâu)
- Defnyddio'r themâu i wneud synnwyr o'r wybodaeth yn rhesymegol a chydlynnol
- Ystyried sut mae'r data yn cefnogi neu'n gwrthddweud y llenyddiaeth

Interviews – qualitative

- Raw data
- Transcribe interviews
- Code the data (themes)
- Use themes as structured aids to present findings logically and coherently
- Consider how the data reflect or contradict the literature



<https://www.youtube.com/watch?v=DRL4PF2u9XA>

How to...



Run qualitative and quantitative research

From definitions through to analysis

www.nfer.ac.uk



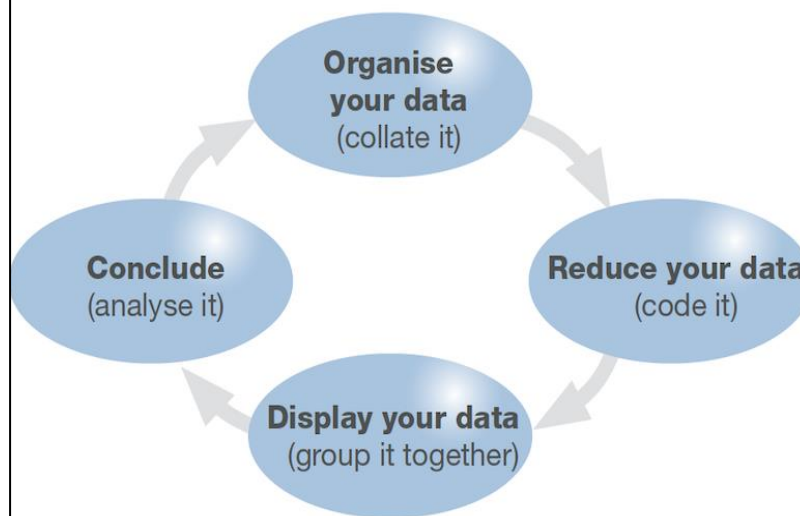
6 Analysing qualitative and quantitative data

You need to think about your analysis when you plan your research. The questions you ask and how you ask them will determine what analysis you can do.

6.1 Analysing qualitative data

There are many approaches you could use to analyse qualitative data. There is a process to follow regardless of which you choose (see Figure 6).

Figure 6 Qualitative data analysis process



6.1.1 Organising the data

You need to revisit the purpose and aims of your research and then decide how to structure your analysis. To start this process, you need to organise it so you have all your data together. If you have done observations in different classes, you will want to collate your notes for each class observation together. You will also need to read through all of your data and familiarise yourself with it before moving on.

6.1.2 Reducing the data

The main technique employed here is 'coding'. You can buy software packages to help you code qualitative data, but these may not be worth the investment for a small dataset.

The purpose of coding is to apply themes and sub-themes to the data. You are aiming to organise the data into manageable 'chunks' so that you can compare relevant responses. The interview notes will contain lots of interesting data, but not all of it will be relevant to your research question; this stage helps to filter out any irrelevant information you have collected. The figure on page 11 shows a process for coding interview data.

It may be that, as you go through the interviews, more codes emerge. This is not a problem, just go back over the interview notes you have already coded and add in the new code. **Remember, only code what is useful to the research!**

Figure 7 Coding interview data

1

Start by making a list of the particular things that you are interested in and give each one a name – these become your code labels. Alternatively or as well, you may assign each code a colour.

2

Select a code label and go through the interview notes (or transcript) and mark every time it occurs. How you do this is up to you - some people use hard copies, others do it on screen. Repeat this step with the other codes.

3

Repeat step two with all the interview notes.

Appendix B – Year 6 Learner Transcript

Please note that all hesitations and false starts have been removed from all transcripts.

Learner Response	How do you prefer to learn, in focus groups or as a whole class?
A	In small groups because you get to sit by new people who help you learn more by learning how they work and yeah..you like talk about a problem to work it out. You also have like more of a one-to-one with the teacher
B	Yeah I agree with (Learner A) because when you sit in a group you feel like you get a bit more feedback from the actual table. When you are in a whole class no one can really interrupt you. In focus groups you can get on to the next thing more quickly, but if you have the whole class on one piece of work then the people who are done can't move on.
C	Yeahh (In response to Learner B) and it just gets too noisy in a whole class so you can't really concentrate. You also get more chance to learn because you can like talk to the teacher about something you don't really get. In focus groups, we also have the rest of the class who work independently on like missions.
D	So say now you're in a whole class it would be harder because the people who are ready to learn but then there are also some people who are finishing off work and you are just waiting for them people to finish.
E	Yeah and like in whole class people just mess around and you don't really get any work done because you are trying to concentrate and listen but you can't really. Small groups also help you learn more because Miss has less people to help.

Appendix 4 – Quality Talk

Appendix A – Learner Questionnaire

4. Please give a reason for WHY you prefer either small group teaching, or whole class teaching?

10 Responses

ID ↑	Name	Responses
1	anonymous	I prefer to work in small groups because there isn't much of a hassle
2	anonymous	I prefer being in small groups because I get to sit by new people nearly everyday and I also like learning new stuff.
3	anonymous	I rather work in smaller works and carousel because you get to learn more things in that space of time and it gam be more fun.
4	anonymous	When you are in a small group you <u>disuse better</u> then in a whole call.
5	anonymous	when you are in a small groop I think you lurn more but if you are in a howl class you hafe to wait for the peers to finish
6	anonymous	I don't know
7	anonymous	Because it gets a bit chaotic but I like small groups and whole class equal
8	anonymous	Because it is not that loud sometimes and <u>you get to talk more in your small group.</u>
9	anonymous	I feel like it's <u>easier to decuce</u>
10	anonymous	because it is easier to work and concentrate

Cam 2 Dadansoddi'r data – Step 2 Analyse the data

Plethu'r themâu o'r trawsgrifiad â data eraill, e.e. holiaduron – gweler enghraifft ar y sleid nesaf.

Blend relevant themes from the transcript with other data, e.g., questionnaires – please see example on next slide

Cefnogi eich trafodaeth gyda llenyddiaeth – gwneud cysylltiadau gyda'r adolygiad llenyddiaeth.

Support your discussion with literature – making links with the literature review.

Appendix 5 – Personalised Learning

Appendix A – Year 6 Interview Transcript

TRAWSGRIFIAD
CYFWELIAD

INTERVIEW
TRANSCRIPT

HOLIADUR
QUESTIONNAIRE

Learner Response	How do you prefer to learn, in focus groups or as a whole class?
A	In small groups because you get to sit by new people who help you learn more by learning how they work and yeah..you like talk about a problem to work it out . You also have like more of a one-to-one with the teacher
B	Yeah I agree with (Learner A) because when you sit in a group you feel like you get a bit more feedback from the actual table . When you are in a whole class no one can really interrupt you. In focus groups you can get on to the next thing more quickly , but if you have the whole class on one piece of work then the people who are done can't move on .
C	Yeahh (In response to Learner B) and it just gets too noisy in a whole class so you can't really concentrate . You also get more chance to learn because you can like talk to the teacher about something you don't really get . In focus groups, we also have the rest of the class who work independently on like missions.
D	So say now you're in a whole class it would be harder because the people who are ready to learn but then there are also some people who are finishing off work and you are just waiting for them people to finish .
E	Yeah and like in whole class people just mess around and you don't really get any work done because you are trying to concentrate and listen but you can't really. Small groups also help you learn more because Miss has less people to help .

Appendix B – Teacher Questionnaire

14. What is the primary reason for your score?

2 Responses

ID ↑	Name	Responses
1	anonymous	In focus groups, I am able to spend quality time with the learners and I am able to regulate the learning . I can therefore be confident that each individual understands the learning objective, or at least I can identify what particular areas need further support.
2	anonymous	In focus groups, there are less pupils to see and more time to look in specific detail of the work. I can therefore identify individualised and personalised next steps to help the learners progress further.

Dylunio a chynnal astudiaeth ymchwil

Design & conduct a small-scale research study

Cyflwyniad
Introduction

Adolygiad
Llenyddiaeth
Literature Review

Methodoleg
Methodology

Canlyniadau a
thrafodaeth
**Findings &
Discussion**

Casgliad
Conclusion



Eich themâu adnabod – Your identified themes

Canfyddiadau a thrafodaeth

800

‘Beth’ mae’r ymchwiler yn ei ddweud?

Cyflwynwch eich canfyddiadau o dan eich themâu. Dychwelwch at eich llenyddiaeth i gefnogi eich syniadau. Darluniwch eich canfyddiadau gyda gwybodaeth o’ch data (e.e. tablau, dyfyniadau). Defnyddiwch iaith betrus/synhwyrol (tentative) yn eich trafodaethau.

Discussion and findings

800

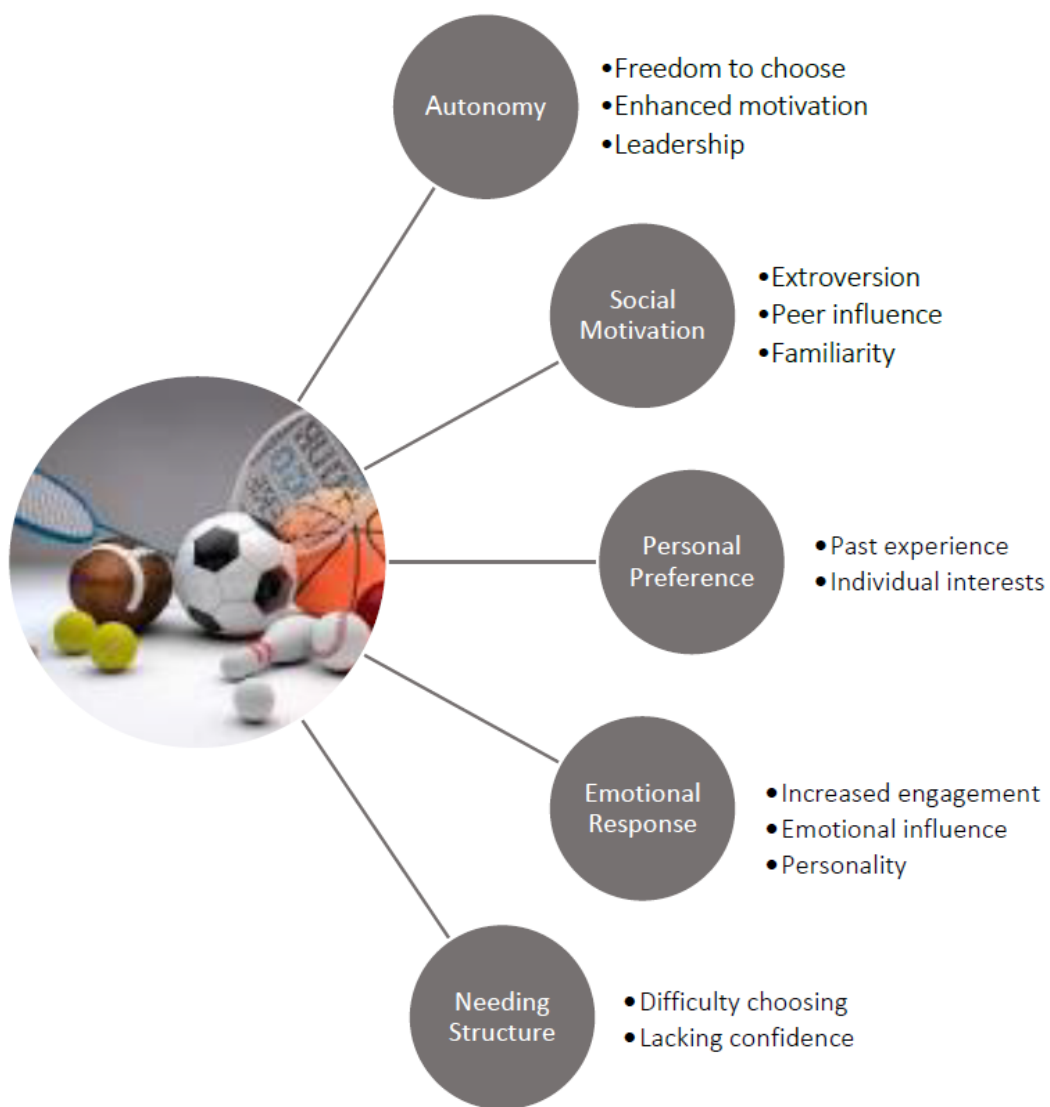
‘What’ does your research say?

Present your findings under your identified themes. Return to your literature to support your ideas. Illustrate your findings with information from your data (e.g. quotes, figures)

Please use tentative language in your discussions.

Through analysis five categories of themes and associated sub-themes were identified (See Figure 2).

Figure 2: Themes



Theme 1: Autonomy

Autonomy was one of the most prominent themes that emerged during analysis. Most of the children expressed positive emotions and higher engagement when they had the freedom to choose their activity during the lessons. When asked what activity they had chosen and why, *Child A* responded “That was *really* good! I picked the obstacle one because I love running.” This child, in particular, thrived when allowed to work independently. He showed creativity by modifying the obstacle course to suit his preferences, removing equipment from the shared area to construct his own version. This autonomy appeared to fuel his enthusiasm, as he excitedly explained, “I really liked doing it myself and showing you when you came to see me.” He was particularly proud of his creation and became visibly animated during the interview. The other participants offered similar feedback and appeared more engaged in the second half of each lesson, “I really enjoyed it when we got to choose!” Said *Child E*. For *Child F* autonomy encouraged her to take on a leadership role. “It was more fun when we got to pick, I liked being the one to read the rules...I was...reading out to everyone, they were all listening to me.” It was

Quotes from participants

Cysylltiadau gyda llenyddiaeth *
Links to literature*

Creu Casgliadau

- Beth yw'r prif pwyntiau ydych wedi ei ddysgu ar ôl dadansoddi'r data ac adolygu'r llenyddiaeth?
- A ydych wedi gallu ateb eich cwestiwn ymchwil? Sut?
- A ydy'ch chi'n gallu cyffredinoli? A ydy'r data yn ddibynadwy a chredadwy?

Draw Conclusions



- What are the main points that you have identified after analysing the data and reviewed the literature?
- Have you been able to answer your research question? How?
- Are you able to generalize? Is your data credible and reliable?

Casgliadau ac argymhellion ‘Beth’ ydych wedi ei ddysgu a beth nesaf? Ysgrifennwch baragraff cryno o’ch canfyddiadau allweddol a gwnewch sylwadau ar ddilysrwydd (validity), dibynadwyedd (reliability) a chyffredinoladwyedd (generalisability) eich ymchwil (e.e. 2 neu 3 pwynt pwysig; cydnabod cryfderau a chyfyngiadau’r dyluniad ymchwil) ‘Beth yw effaith yr ymchwil ar eich arfer proffesiynol? Dylech ystyried hyn drwy fyfyrrio ar eich profiad o gynnal ymchwil proffesiynol a chyfeirio at y Safonau Proffesiynol.	250
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Conclusion and recommendations ‘What’ have you learned and ‘what’ are your next steps? Write a summary paragraph of your key findings and comment on the validity, reliability and generalisability of your work (e.g. 2 or 3 main points; acknowledge the strengths and limitations of your research design) ‘How has this/will this impact on your professional practice? You should frame this by reflecting on your experience of conducting a professional enquiry with reference to the Professional Standards.	250
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Figure 5 Common research terms

Validity

This tests whether you are actually measuring what you say you are measuring. This is generally applicable to quantitative research but can be applied to qualitative research too.

Reliability

This is an assessment of whether you would get the same results if you (or someone else) repeated the research with the same group of respondents in the future.

Bias

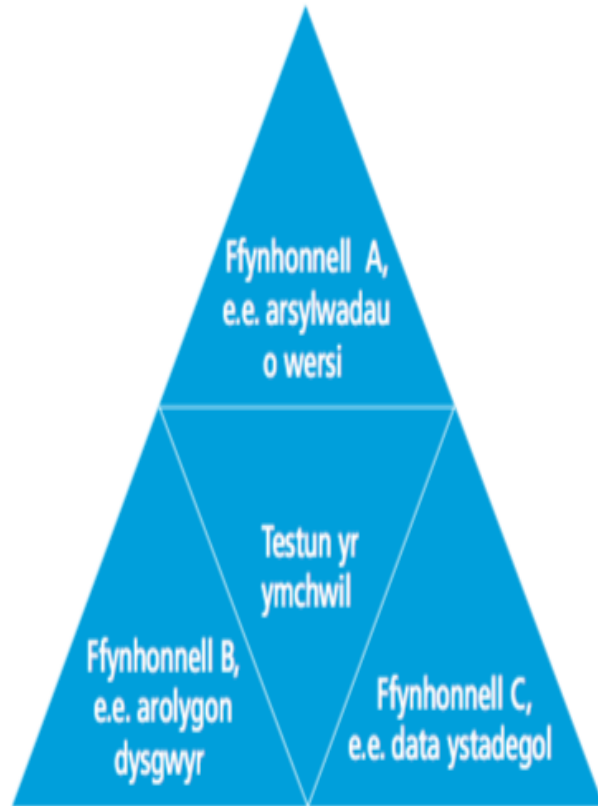
There is always an element of bias in social research, but researchers must try to be objective. As far as possible you should acknowledge your underlying views and assumptions and try to mitigate against these - for example, by looking for evidence that disproves your own view.

Triangulation

Triangulation involves collecting and analysing data from different sources (be these stakeholder groups, test scores or other information) and seeing the extent to which they match. The more the views coincide, the greater the confidence you can have in what you are being told or what appears to be happening. It is also informative when data sources do not coincide, as this can lead to new understandings.

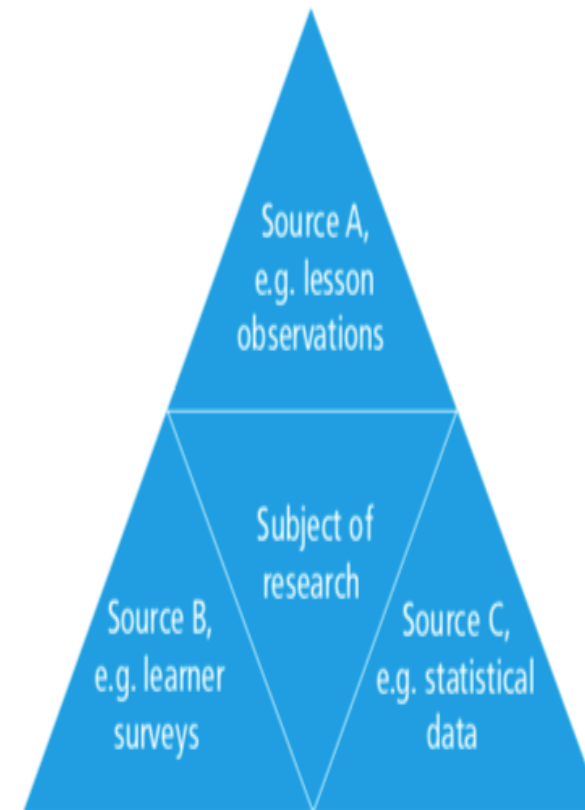
- Dilysrwydd (Validity)
- Dibynadwyedd (Reliability)
- Bias (Tuedd)
- Triongli (Triangulation)
- Cyffredinoli (Generalisation)

Ffigur 8: Triongli data



Ffynhonnell: Grigg (Canolfan Cymru er Cydraddoldeb mewn Addysg)

Figure 8: Triangulation of data



Source: Grigg (Wales Centre for Equity in Education)



Cyfeiriadau References

Cohen, L., Manion, L. and Morrison, K. (2013) *Research Methods in Education*. London: Sage Publications Ltd. (Copy available on Moodle) rme-edu-helpline-blogspot-com

Denscombe, M. (2014) *Good Research Guide*. 5th edition. Maidenhead: Open University Press. (Copi ar Moodle – copy on Moodle)

NFER (2013) Run qualitative and quantitative research. Slough: NFER.

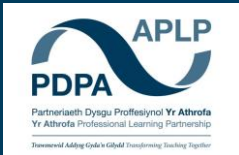
<https://www.nfer.ac.uk/publications/how-to-run-qualitative-and-quantitative-research-from-definitions-through-to-analysis/>

(Copi ar/ Copy on: Moodle)

Unrhyw gwestiynau? Any questions?



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