

## **“O sero i dri chant” - technegau caffael dwys ar gyfer y 300 gair cynnwys mwyaf aml yn Gymraeg**

Cynhaliwyd y prosiect “O sero i dri chant” ym Mhrifysgol Abertawe rhwng Medi 2023 a Mawrth 2024 gan Tess Fitzpatrick, Steve Morris a Gosia Rutecka. Cyd-ariannwyd y prosiect gan y Ganolfan Dysgu Cymraeg Genedlaethol, a Dyfarniad Cyflymu Traweffaith yr AHRC (Cyngor Ymchwil y Celfyddydau a'r Dyniaethau).

### **1. NODAU'R PROSIECT:**

- Trefnu'r 300 gair cynnwys mwyaf aml (o <https://corcencc.cymru//>, Knight, Morris, Fitzpatrick et al., 2020) yn ôl “dysgadwyedd”<sup>1</sup>, o ran gwybodaeth gynhyrchiol (S>C) a gwybodaeth dderbyngar (C>S).
- Nodi'r geiriau amllder uchel sy'n fwyaf heriol o ran eu dysgu, a'r nodweddion (e.e. orgraffyddol, semantig, morffolegol) a allai gyfrannu at y baich dysgu hwnnw.
- Pennu a yw gwybodaeth am rai geiriau'n golygu eu bod yn fwy tebygol o gael eu cofio (dros gyfnod o bythefnos) nag eraill.
- Nodi technegau caffael effeithiol ar gyfer y 300 gair cynnwys mwyaf aml.

### **2. CEFNDIR A CHYD-DESTUN**

Mae effeithlonrwydd dysgu a chymhelliant dysgwyr yn heriau sylfaenol ar draws maes addysg iaith. Gall technegau sy'n rhoi'r ‘enillion’ mwyaf i ddysgwyr am eu hymdrechion i ddysgu'r iaith, ynghyd â dulliau sy'n cynnal momentwm a chymhelliant dysgwyr, fod yn werthfawr wrth fynd i'r afael â'r heriau hyn. Gyda hynny mewn golwg, mae'r prosiect yr adroddir arno yma yn archwilio i ganlyniadau cyfnod dwys o astudio geirfa Gymraeg ar gyfer dechreuwyr pur. Gofynnwyd i gyfranogwyr o oedolion nad oedd ganddynt ddim, neu braid dim, gwybodaeth flaenorol o'r Gymraeg ddysgu 300 gair dros gyfnod o 50 diwrnod. Datgelodd tasgau yn syth ar ôl dysgu ac wedi'u hoedi pa mor effeithiol y bu eu dysgu, a chafwyd data trwy holiaduron am dechnegau dysgu, agweddau a chymhelliant.

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<sup>1</sup> Yma, rydym yn defnyddio'r term “dysgadwyedd” (“*learnability*”) i olygu rhwyddineb, neu anhawster, dysgu gair penodol – h.y. mae'n nodwedd o'r gair unigol, nid o'r dysgwyr (mae hyn yn dilyn, er enghraifft, Carter a McCarthy (2014); Ellis a Beaton (1993); Laufer (1990)).

Cynlluniwyd y prosiect mewn ymateb i amcanion polisi ac adolygiadau darpariaeth diweddar i addysg Gymraeg, ynghyd ag adnoddau sydd newydd eu rhyddhau:

- Golyga rhyddhau corpws CorCenCC yn 2020 (Knight, Morris, Fitzpatrick et al., 2020) fod modd creu rhestr o eirfa Gymraeg cyfoes ar sail amllder wedi'u hysbysu gan gorpws. Mae amllder yn ystyriaeth allweddol wrth benderfynu ym mha drefn y dylid dysgu eitemau geirfaol (Nation, 2022). Y geiriau targed yn y prosiect hwn yw'r 300 enw, berf neu ansoddair mwyaf aml yng nghorpws CorCenCC (sy'n cynnwys 11 miliwn + o eiriau).
- Noda Cymraeg 2050, sy'n datgan yr amcan o gael miliwn o siaradwyr Cymraeg erbyn 2050, y bydd "cynhyrchu rhagor o adnoddau geiriadurol, corpws a therminolegol o ansawdd uchel" yn "cefnogi dysgwyr..." (Llywodraeth Cymru, 2017). Mae'r prosiect hwn yn enghraifft o sut y gellir defnyddio adnoddau newydd, yn enwedig corpws Cymraeg CorCenCC (Knight, Morris, Fitzpatrick et al., 2020) i ddatblygu cymhorthion i ddysgwyr.
- Mae argymhellion yr Adolygiad Cyflym o'r Ganolfan Dysgu Cymraeg Genedlaethol (CDCG)(Morris 2021) ac ymateb Llywodraeth Cymru i'r argymhellion hynny (2021) yn cynnwys ystyriaethau fel cynyddu niferoedd, lleihau athreuliad dysgwyr, ac ehangu cylch gwaith y GDCG, er enghraifft trwy "rannu adnoddau ac arferion da â'r sector ail iaith mewn ysgolion" ac ymestyn "darpariaeth i oedolion" i gynnwys rhai 16-18 oed. Awgryma ystadegau'r GDCG (<https://dysgucymraeg.cymru/amdanom-ni/cyhoeddi-data/ystadegau-2021-2022/>) mai cadw dysgwyr trwy lefel Mynediad (CEFR A1) ac i mewn i lefel Sylfaen (CEFR A2) sydd fwyaf problematig. Mae'r prosiect hwn yn canolbwyntio ar y geiriau amllder uchaf, ac felly yn mapio i ddeunydd cwrs A1/A2 (CEFR).

Gall dysgu'r 300 gair cyntaf ar garlam roi sylfaen gref ar gyfer dysgu maes o law a'r potensial i gyfathrebu'n syth. Mae cyrraedd targedau geirfa y gellir eu cyfrif yn gymhelliol tu hwnt – gall dysgwyr fesur eu cynnydd. Mae 300 eitem mewn 50 diwrnod yn cynrychioli hwb cychwynnol sylweddol i'r gyfradd caffael geirfa amcangyfrifol arferol (gw. Milton a Meara, 1998). O ran yr hyn y gellir ei wneud gyda gwybodaeth o 300 gair, awgryma Nation a Crabbe (1991) y gall 120 gair/ymadrodd ffurfio "geirfa goroesi" (yn yr iaith Saesneg), a noda Nation fod modd darllen y deunydd darllen graddedig hawsaf gyda gwybodaeth o 100-450 teulu geiriau Saesneg (2022, tud. 27).

Dengys canfyddiadau Fitzpatrick et al. (2008) fod modd llwyddo i gaffael 300 gair mewn cyfnod cymharol fyr. Yn eu hastudiaeth, gofynnwyd i gyfranogwr heb wybodaeth flaenorol o'r Arabeg ddysgu 300 gair Arabeg dros 20 diwrnod o gardiau fflach (lle mae'r gair targed a'r cyfieithiad Saesneg wedi'u hysgrifennu ar ddwy ochr cerdyn); mewn prawf yn syth ar ôl dysgu, galwyd i gof 94% o'r geiriau targed, ac adnabwyd 95% ohonynt. Defnyddiodd Elgort a Piasecki (2014) gardiau fflach i ddysgu hefyd, er bod yr eitemau targed yn eu hastudiaeth yn eiriau ffug. Maen nhw'n adrodd cyfradd galw i gof 94% hefyd am eu 48 gair targed, ar ôl wythnos o ddysgu y tro yma.

Mae Nation (2022) yn rhoi trosolwg gynhwysfawr o ymchwil i ddysgu o gardiau fflach. Noda fod gweithgaredd dysgu geirfa bwriadol o'r fath yn effeithlon ac yn effeithiol, ond er mwyn gwneud y gorau posibl o'r dysgu, dylid rhoi sylw i ddethol y geiriau targed, dylunio'r cardiau geiriau, arfer adalw geiriau, ac ailadrodd bylchog (am ragor o wybodaeth gweler Nation,

2022 tt. 407-429). Mae Nation (2022) ac eraill yn hybu'r defnydd o feddalwedd cardiau fflach, sydd yn aml yn ymgorffori elfennau o ddysgu strategol. Nod y prosiect cyfredol oedd archwilio i dechnegau cyfranogwyr ar gyfer dysgu geiriau, a chynhyrchu rhestr o eiriau wedi'u trefnu yn ôl "dysgadwyedd". Gan fod meddalwedd yn gallu rheoli technegau, bylchu, ac ailadrodd geiriau penodol, defnyddiwyd cardiau fflach papur yn yr astudiaeth hon.

Fel y nodir yn yr adran ar fethodoleg isod, rhoddwyd rhai awgrymiadau dysgu i gyfranogwyr y prosiect ynghyd â chyfarwyddiadau am y dasg. Canolbwyntiodd y rhain ar dair techneg: *defnyddio cardiau fflach*, *techneg allweddeiriau* a *techneg teulu geiriau*, a chawsant eu hysbysu gan ymchwil gan gynnwys Webb a Nation (2017), a Fitzpatrick et al. (2018) a nododd dechneg yr allweddeiriau yn un sy'n arbennig o effeithiol o ran dysgu geiriau. Roedd y ddewislen seml yma o dechnegau dysgu effeithiol yn rhoi pecyn cymorth i gyfranogwyr y gallen nhw ddewis dulliau ohono fyddai'n briodol i eiriau targed penodol a'u blaenoriaethau dysgu eu hunain.

### 3. METHODOLEG

#### 3.1 Dewis y geiriau targed

Gosodwyd nifer yr eitemau targed yn 300. Fel yr esboniwyd uchod, ystyriwyd bod hyn yn ddigon bach i fod yn darged dysgu dichonadwy, ac yn ddigon mawr i roi hwb ystyrlon ymlaen i lecsicon dysgwyr.

Man cychwyn dewis yr eitemau targed oedd rhestr o'r 750 gair mwyaf aml o CorCenCC, fel y'u rhestrwyd yn adroddiad Geirfan (Knight, Tovey-Walsh et al., 2023). Rhestr eiriau bedagogaid yw Geirfan, sy'n deillio ac wedi'i haddasu o restri'r Amliadur (Knight et al. 2020) a seiliwyd ar amllder yn unig, heb ystyriaethau pedagogaid (gw. Knight, Fitzpatrick et al., 2023). Mae Atodiad A o Knight, Tovey-Walsh et al. (2023) yn rhestru'r 750 gair (lema) y mae rhestr Geirfan yn deillio ohonynt, yn nhrefn eu hamlder yn CorCenCC, gyda gwybodaeth ychwanegol gan gynnwys rhannau ymadrodd. Gan weithio trwy'r rhestr honno a chychwyn gyda'r rhai mwyaf aml, dewiswyd y geiriau targed yn ôl y meini prawf canlynol:

- Dim ond enwau, berfau ac ansoddeiriau a ddewiswyd yn eiriau targed. Cafodd adferfau eu heithrio'n systematig oherwydd y modd mae llawer ohonynt yn cael eu ffurfio yn y Gymraeg. Cafodd geiriau ffwythiannol eu heithrio gan eu bod yn tueddu i beidio â meddu ar eiriau cyfatebol y mae modd eu cyfieithu'n hawdd, ac mae eu cysylltiad â strwythurau cysrawennol penodol yn golygu bod llawer ohonynt yn anodd eu defnyddio heb rywffaint o wybodaeth ramadegol.
- Pan ddefnyddiwyd yr un llinyn geiriau ar gyfer dosbarthiadau geiriau neu ystyron gwahanol (e.e. Cymraeg fel enw a Cymraeg fel ansoddair, neu de > *right* a de > *south*), dim ond yr un mwyaf aml a gynhwyswyd.
- Pan oedd gan ddau air targed posibl yr un cyfieithiad Saesneg, ac nad oedd gair Saesneg arall fel cyfieithiad addas, dim ond yr un mwyaf aml a ddefnyddiwyd (e.e. dydd a diwrnod > *day*).
- Fel bod modd i gyfranogwyr wahaniaethu rhwng enwau a berfau, rhagflaenwyd cyfieithiadau Saesneg o ferfau gan yr arddodiad "to". Er mwyn cadw at y protocol

hwn cafodd berfau moddol nad oes modd eu mynegi gyda'r "to" annherfynol, eu heithrio (e.e. dylai).

- Cafodd geiriau a ddefnyddir mewn ymadroddion fformiwläig yn unig eu heithrio (e.e. bodd, yn "wrth fy modd")
- Eithriwyd geiriau nad oes ganddynt gyfieithiad Saesneg cyfatebol syml (e.e. eisteddfod)

Arweiniodd y broses ddewis hon at eithrio 178 o eiriau; yr un olaf (fesul amllder) o'r 300 gair i'w ddewis oedd *llafur* sydd yn safle 478 ar y rhestr amllder o CorCenCC. Gellir gweld y rhestr o eiriau targed sy'n deillio o hyn, yn nhrefn eu hamlder, yn Atodiad 1.

### 3.2 Cyfranogwyr

Recriwtiwyd cyfranogwyr o blith myfyrwyr ym Mhrifysgol Abertawe, a thrwy gysylltiadau personol (anogwyd myfyrwyr i sôn am y prosiect wrth eu ffrindiau). Roeddem wedi rhagweld cyfradd rhoi'r gorau gymharol uchel o ystyried hyd estynedig a gofynion dwys y prosiect. Fe recriwtion ni 40 o gyfranogwyr, ar y sail y byddai cyfradd ymadael o 50% yn dal i esgor ar sampl ymarferol o 20. Ar y cychwyn, roedd y recriwtio, trwy sleid (Atodiad 2) a ddangoswyd mewn nifer fechan o ddarlithoedd, yn araf. Fodd bynnag, arweiniodd neges a anfonwyd at holl fyfyrwyr y Gyfadran at gryn dipyn o ddiddordeb.

Cyfeiriwyd y sawl a gysylltodd â ni at ddogfen Google Forms gyda gwybodaeth am yr hyn oedd ynghlwm wrth y prosiect (gw. Atodiad 3), gwiriad cymhwystra, a ffurflen gydsynio i'w chwblhau<sup>2</sup>. Recriwtion ni'r deugain cyfranogwr cyntaf i gwblhau'r ffurflen gydsynio, gan anfon ateb at bawb arall a fynegodd ddiddordeb gan gynnwys gwybodaeth am gyrsiau Cymraeg a gynigir gan y Ganolfan Dysgu Cymraeg Genedlaethol. Gellir gweld yn Atodiadau 2 a 3 ein bod wedi gwneud yr ymrwymiad a ddisgwyliid gan gyfranogwyr yn glir. Hefyd dywedwyd wrth y cyfranogwyr, fel gwobr am gwblhau'r prosiect, y byddent yn derbyn taleb Amazon; yn cael eu gwahodd i sesiwn blasu'r Gymraeg opsiynol a gynlluniwyd yn benodol ar gyfer cyfranogwyr y prosiect hwn; yn derbyn tystysgrif cyfranogi wedi'i geirio'n briodol fel bod modd ei defnyddio mewn cv neu gais am swydd.

Cynlluniwyd y prosiect ar gyfer cyfranogwyr nad oedd ganddynt wybodaeth flaenorol o'r Gymraeg. Fodd bynnag, gan fod pob cyfranogwr naill ai wedi byw neu astudio yn Abertawe, neu â chysylltiad â Chymru (dyna pam roedd ganddynt ddiddordeb yn y prosiect), roedd yn anochel iddynt ddod i gysylltiad â'r Gymraeg trwy'r dirwedd ieithyddol. Felly, gosodon ni'r meini prawf cymhwyso fel a ganlyn:

*"Participants should be first language or highly proficient users of English, and should not be Welsh speakers. As a guide, if you know the Welsh words for two or more of these words: go, give, big, new, people, children, you are NOT eligible to take part in this project."*

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<sup>2</sup> Cymeradwywyd y prosiect gan bwyllgor moeseg Cyfadran Dyniaethau a Gwyddorau Cymdeithasol Prifysgol Abertawe – rhif cymeradwyo 1 2023 7871 6856.

Dewiswyd y geiriau prawf hyn o'r 20 gair mwyaf aml yn rhestr y geiriau targed. Gofynnwyd am hyfedredd yn y Saesneg er mwyn sicrhau y byddai cyfranogwyr yn gwybod y cyfieithiadau Saesneg i'r geiriau targed Cymraeg. Datgelodd yr holiadur a ddosbarthwyd ar ddiwedd y prosiect fod cefndiroedd iaith y cyfranogwyr fel a ganlyn: roedd 14 yn ddefnyddwyr iaith gyntaf o'r Saesneg (gydag un ohonynt yn ddwyieithog gyda Hindi), a'r ieithoedd cyntaf eraill a nodwyd oedd Siapanaeg; Twrceg; Arabeg; Hindi; Malayalam; Tsiegeg. Adroddodd tri chyfranogwr nad oedd ail ieithoedd ganddynt. Amrywiodd gwybodaeth ail iaith eraill o "Ffrangeg sylfaenol" (2 gyfranogwr) i wybodaeth am 4 iaith arall (4 cyfranogwr).

Dyma nifer y cyfranogwyr a gwblhaodd bob cam o'r prosiect:

- Cwblhau 50 diwrnod dysgu<sup>3</sup> a'r prawf yn syth ar ôl dysgu: 23<sup>4</sup>
- Cwblhau'r uchod ynghyd â'r prawf wedi'i oedi: 22
- Cwblhau'r uchod ynghyd â'r holiadur ddiwedd y prosiect: 20

Cysylltodd saith gyfranogwr â ni yn ystod y prosiect i ddweud bod rhaid iddynt dynnu allan oherwydd prinder amser i ymgymryd â'r dysgu. Ni chwblhaodd naw arall y dasg ôl-ddysgu, a phheidion nhw â chysylltu â ni ymhellach, er i ni anfon ebyst atgoffa yn rheolaidd.

### 3.3 Deunyddiau

Cyflwynwyd pecyn dysgu i'r cyfranogwyr oedd yn cynnwys:

- 300 o gardiau fflach (gw. Atodiad 4 am sampl). Maint pob cerdyn fflach oedd tua 140mm x 65mm. Yn ogystal â'r gair targed a'r cyfieithiad Saesneg, roedd y cerdyn fflach yn cynnwys grid gyda 50 blwch fel bod y cyfranogwyr yn gallu marcio pob dydd roeddent wedi edrych ar y cerdyn hwnnw. Pan fyddai geiriau ar fwy nag un cerdyn fflach yn dod o'r un teulu geiriau, roedd y llinynnau llythrennau oedd yn cael eu rhannu mewn print trwm.
- taflen wybodaeth 2 dudalen (gw. Atodiad 5), gyda:
  - gwybodaeth am pryd i ddechrau dysgu, a sut i gofnodi'r cynllun dysgu
  - awgrymiadau ar gyfer cynllunio eu dysgu – e.e. faint o eiriau i roi cynnig arny'n nhw bob dydd
  - awgrymiadau am sut i ddefnyddio cardiau fflach, techneg allweddeiriau, a thechneg y teulu geiriau
  - nodyn am rannau ymadrodd, ac ynganu
  - cyfarwyddiadau am beth i'w wneud ar ôl cwblhau 50 diwrnod dysgu

<sup>3</sup> Roedd yr holiadur yn cynnwys y cwestiwn: "We realise that 10 mins per day of vocabulary learning is a big commitment. Please tell us whether there were any days that you missed (how many), and whether you used extra days to make up for this. Please note that we do not need to know why you missed days, and also that there was no obligation to add extra days for any you missed." Adroddodd y rhan fwyaf iddynt golli ychydig ddyddiau; roedd rhai (nid pawb) wedi gwneud yn iawn am hyn trwy wneud dyddiau ychwanegol.

<sup>4</sup> Cwblhaodd 24<sup>ain</sup> cyfranogwr y prawf yn syth ar ôl dysgu yn rhy hwyr i gael eu cynnwys yn y canlyniadau.

- canllaw “*keep track of your 50 days of learning*” (gw. Atodiad 6). Dechreuodd y cyfranogwyr ar ddiwrnodau gwahanol (pan fyddai'n gyfleus iddynt). Roedd y canllaw hwn yn fodd iddynt nodi eu diwrnod eu hunain 1, 2, etc. ac i farcio diwedd eu 50 diwrnod o ddysgu.
- canllaw i ynganu'r Gymraeg (gw Atodiad 7)
- copi, er gwybodaeth, o'r ffurflen wybodaeth a chydsynio roeddent wedi'i llofnodi ar-lein.

Paratowyd tair tasg ôl-ddysgu:

- Tasg yn syth ar ôl y dysgu, wedi'i chyflwyno a'i chwblhau ar Google Forms. Yn dilyn y cyfarwyddiadau, y gellir eu gweld yn Atodiad 8, roedd tasg dwy adran. Roedd yr adran gyntaf yn mesur gwybodaeth gynhyrchol (galw i gof), yn rhoi cyfieithiadau Saesneg y geiriau targed, ac yn gofyn i'r cyfranogwyr roi'r Gymraeg. Roedd yr ail adran yn mesur gwybodaeth dderbyngar (adnabod), yn gofyn i gyfranogwyr roi cyfieithiadau Saesneg o'r rhestr o eiriau targed Cymraeg.
- Anfonwyd dolen i'r dasg ôl-ddysgu wedi'i hoedi, a oedd yr un peth yn union â'r dasg yn syth ar ôl dysgu, 12-14 dydd ar ôl iddynt gwblhau'r uchod. Dywedwyd wrth y cyfranogwyr am beidio ag edrych ar eu cardiau fflach rhwng cwblhau'r ddwy dasg.
- Holiadur terfynol, yn gofyn am ymatebion i'r cwestiynau canlynol (yn yr iaith wreiddiol):
  - *What is your first language?*
  - *What other languages do you know?*
  - *We realise that 10 mins per day of vocabulary learning is a big commitment. Please tell us whether there were any days that you missed (how many), and whether you used extra days to make up for this. Please note that we do not need to know why you missed days, and also that there was no obligation to add extra days for any you missed.*
  - *On average, how many words did you look at each day?*
  - *How did you decide which words to look at each day?*
  - *How did you use the **flashcards**? e.g. Did you cover / fold the card so that a word was hidden? Did you write on the flashcards? Did you divide them into piles (how)? Did you use them in some other way?*
  - *Did you use the **keyword technique** at all (where you think of a word in English (or your L1) that resembles the Welsh target word in some way, and possibly create a visual image)? If yes, did you draw your keyword images at all? Did you use the keyword technique in some other way?*
  - *Can you remember which (if any) words you used keyword technique to learn? Please list as many as you can remember.*
  - *Did you use the **word family technique** at all (on the flashcards, common letter strings in words from the same family were marked in **bold**)? Did this help your learning? If so, in what way?*
  - *Can you remember which (if any) words you used word family techniques to learn? Please list as many as you can remember.*
  - *Tell us more about any other learning techniques you used.*

- *What advice would you give someone attempting this challenge (learn 300 Welsh words in 50 days) in the future?*
- *Is there any other information you think might be relevant to our interpretation of your results? Please note that we do not need to know about why your learning might have been disrupted or interrupted; we are interested in factors that may have impacted on your learning approach or process (e.g. learning difficulties such as dyslexia; knowledge of languages similar to Welsh).*
- *What did you find enjoyable about the task?*
- *What did you find less enjoyable about the task?*
- *Do you have any suggestions for how the task might be made more effective (e.g. timing, instructions, etc.)?*
- *Do you have any other comments relating to your experience on the Welsh vocabulary project?*
- *Would you like us to email you your scores from the two post-learning tasks?*

Cyflwynwyd y tasgau ôl-ddysgu i gyd ar Google Forms.

### 3.4 Dull gweithredu

Cychwynnodd y cyfranogwyr ar eu dysgu rhwng 13 a 29 Tachwedd 2023. Yn ystod y cyfnod dysgu, anfonwyd ebost wythnosol at y cyfranogwyr yn cydnabod y gwaith roedden nhw'n ei gyfrannu at y prosiect ac yn eu hannog i ddal ati. Gofynnwyd i'r cyfranogwyr gysylltu â'r ymchwilwyr unwaith roedden nhw wedi cwblhau eu cyfnod dysgu 50 diwrnod. Wedyn anfonwyd ebost atynt gyda dolen i'r dasg yn syth ar ôl y dysgu. 12-14 diwrnod ar ôl iddynt gwblhau'r dasg honno, anfonwyd dolen i'r ail dasg ôl-ddysgu atynt. Wedi iddynt gwblhau honno, anfonwyd dolen i'r holiadur terfynol atynt.

Cafodd y tasgau ôl-ddysgu eu marcio fel y canlyn:

- 2 bwynt yn cael eu rhoi am bob ateb cywir
- 1 pwynt yn cael ei roi am atebion oedd yn cynnwys mân wallau sillafu, neu oedd yn cael eu sillafu yn ôl orgraff y Saesneg
- 0 pwynt yn cael ei roi am atebion anghywir neu fylchau gwag

Gellir gweld set lawn o'r protocolau marcio yn Atodiad 9.

Rhoddwyd sicrhad i'r cyfranogwyr yn gyson mai diben y tasgau ôl-ddysgu oedd canfod pa eiriau oedd y rhai hawsaf/mwyaf anodd i'w dysgu, yn hytrach na'u hasesu nhw fel dysgwyr. Eto i gyd, dylid nodi nad oedd yn bosibl pennu a oedd y cyfranogwyr wedi cyfeirio at ffynonellau allanol (e.e. Google Translate, geiriaduron, ffrindiau/teulu Cymraeg) wrth gwblhau'r tasgau.

## 4. CANLYNIADAU AC ALLBYNNAU

### 4.1 Dysgadwyedd gair

Aseswyd “dysgadwyedd” y 300 gair targed trwy'r dasg yn syth ar ôl y dysgu. Cafodd y dasg ei marcio yn ôl y protocol a restrir uchod ac yn Atodiad 9, a chyfrifwyd cyfanswm nifer y pwyntiau a sgoriwyd ar gyfer pob gair, o'r Saesneg > i'r Gymraeg (galw i'r cof) a'r Gymraeg > i'r Saesneg (adnabod). Dehonglwyd y sgorau fel arwyddion o “ddysgadwyedd” – h.y. ystyriwyd y geiriau gyda'r sgorau uchaf fel y rhai mwyaf dysgadwy. Y sgôr uchaf bosibl fesul gair, pe bai pob un o'r 23 o gyfranogwyr wedi cynhyrchu atebion cywir (2 bwynt yr un) oedd 46. Rhoddwyd y sgôr uchaf honno i un eitem yn unig: yn y dasg Cymraeg > Saesneg, rhoddodd pob cyfranogwr y cyfieithiad Saesneg cywir am *Cymraeg*. Hefyd, rhoddwyd sgôr o sero i un eitem yn unig (ni roddodd unrhyw gyfranogwr y gair Cymraeg am “to hear”). Dengys tabl 1 yr ystadegau disgrifiadol ar gyfer y sgôr fesul gair. Gellir dod o hyd i'r rhestr lawn o eiriau targed wedi'u trefnu yn ôl “dysgadwyedd”, gyda'u sgorau gwahanol allan o 46, yn Atodiadau 10 (Saesneg > Cymraeg) ac 11 (Cymraeg > Saesneg).

Tabl 1: Sgorau fesul gair (sgorau “dysgadwyedd”) – prawf yn syth ar ôl y dysgu (*uchaf posibl = 46 fesul modd*)

|                   | Sgôr leiaf fesul gair | Sgôr uchaf fesul gair | Sgôr gymedrig fesul gair | Gwriad safonol |
|-------------------|-----------------------|-----------------------|--------------------------|----------------|
| Saesneg > Cymraeg | 0                     | 42                    | 18.03                    | 9.03           |
| Cymraeg > Saesneg | 4                     | 46                    | 22.41                    | 9.73           |

Dengys tabl 1 fod y sgorau adnabod yn uwch na'r sgorau galw i gof; mae'r gwahaniaeth hwn yn arwyddocaol ac wedi'i gadarnhau gan brawf-t ( $p < 0.0001$ ). Mae hyn yn cyd-fynd â'r farn a dderbynnir yn eang fod gwybodaeth dderbyngar, neu adnabod yn rhagflaenu gwybodaeth gynhyrchiol, neu alw i'r cof, am air (gw. e.e. Nation, 2022). Dengys y ffigurau yn y tabl fod eitemau yn amrywio'n sylweddol o ran a oeddynt yn cael eu galw i'r cof neu eu hadnabod gan y cyfranogwyr. Mae hyn yn cefnogi rhagosodiad yr astudiaeth ei bod yn fwy heriol dysgu rhai geiriau nag eraill.

Mae'r rhestri yn Atodiadau 10 ac 11 yn amlygu tebygrwydd a gwahaniaethau yn nhrefn y geiriau galw i gof (S>C) ac adnabod (C>S). Er enghraifft:

- mae geiriau cytras (gyda ffurf orgraffyddol debyg neu unfath yn y ddwy iaith, yn nodweddiadol o eiriau benthyg) yn cael eu gosod yn uchel yn y ddwy restr;
- o'r 43 gair<sup>5</sup> a osodwyd uchaf (h.y. mwyaf dysgadwy) ym mhob rhestr, mae 31 yn barau cyfieithu – h.y. cawsant eu dysgu'n dda yn y moddau galw i'r cof ac adnabod;
- o'r 12 gair arall a drefnwyd yn 40 uchaf sgorau'r dasg C>S, methodd y rhan fwyaf y torbwynt o 43 yn y rhestr S>C o drwch blewyn. Eithriad clir i hyn oedd *newyddion*, sef

<sup>5</sup> Defnyddiwyd 43 fel torbwynt yn y drefn restrol er mwyn cynnwys geiriau gyda'r un sgorau. Roedd hyn yn cynnwys pob eitem S>C gyda sgôr o 30 neu'n uwch, a phob eitem C>S gyda sgôr o 36 neu'n uwch.



y 39<sup>ain6</sup> mwyaf dysgadwy o ran adnabod (C>S), ond 124<sup>ain</sup> o'r rhai mwyaf dysgadwy o ran galw i'r cof. O graffu'r data, gwelir bod llawer o gyfranogwyr wedi colli pwyntiau gan eu bod wedi camsillafu *newyddion*. Roedd camsillafu, yn enwedig geiriau hwy, yn batrwm trwy'r data i gyd, yn cyfrannu at sgorau is ar gyfer galw i'r cof nag adnabod.

- sylwyd ar y nodweddion canlynol yn y geiriau lleiaf dysgadwy (h.y. y rheini a gafodd y sgorau isaf), sef eu bod yn tueddu i fod ychydig yn hwy; a'u bod yn tueddu i gynnwys llythrennau penodol i'r Gymraeg, neu sy'n cael eu defnyddio'n wahanol yn y Gymraeg i'r Saesneg (gan gynnwys y llafariad w ac y). O'r 29 gair targed sy'n dechrau â'r cyfuniad cy (sy'n heriol yn anecdotaidd i ddysgwyr), roedd 19 ymhlith y 49 gair lleiaf dysgadwy (rhestr C>S, sgorau o 12 ac yn is).

## 4.2 Dargadw geiriau

Aseswyd dargadw geiriau trwy'r dasg ôl-ddysgu wedi'i hoedi. Bwriadwyd cadw'r cyfnod rhwng y ddwy dasg yn bythefnos, ond mewn gwirionedd fe amrywiodd rhwng 13 a 32 ddiwrnod oherwydd argaeledd cyfranogwyr (Cymedr = 17.2, Gwriad Safonol = 4.4). Marciwyd y dasg, a chyfrifwyd y sgorau, yn yr un ffordd â'r dasg yn syth ar ôl y dysgu. Y tro yma, ystyriwyd mai'r geiriau â'r sgorau uchaf a ddargadwyd orau (h.y. cawsant eu cofio ar ôl cyfnod pan na ddaethpwyd ar eu traws). Gan mai 22 gyfranogwr yn unig a gwblhaodd y dasg hon, y sgôr fwyaf bosibl oedd 44. Unwaith eto, rhoddwyd y sgôr uchaf i un eitem yn unig: yn y dasg C>S, rhoddodd pob cyfranogwr y cyfieithiad Saesneg cywir am *Cymru*. Dengys tabl 2 yr ystadegau disgrifiadol ar gyfer sgorau dargadw fesul gair. Gellir dod o hyd i'r rhestr lawn o eiriau targed wedi'u trefnu yn ôl dargadwedd, gyda'u sgorau dargadw allan o 44, yn Atodiadau 12 (Saesneg > Cymraeg) a 13 (Cymraeg > Saesneg).

Tabl 2: Sgorau fesul gair (sgorau "dargadw") – ôl-brawf wedi'i oedi  
(*uchaf posibl = 44 fesul modd*)

|                   | Sgôr leiaf fesul gair | Sgôr uchaf fesul gair | Sgôr gymedrig fesul gair | Gwriad Safonol |
|-------------------|-----------------------|-----------------------|--------------------------|----------------|
| Saesneg > Cymraeg | 0                     | 43                    | 13.77                    | 8.48           |
| Cymraeg > Saesneg | 2                     | 44                    | 17.22                    | 9.78           |

O'r geiriau a osodwyd yn y 43 uchaf o ran dysgadwyedd (S>C), gosodwyd 33 yn y 41<sup>7</sup> uchaf o ran dargadwedd. O'r deg sy'n weddill, roedd saith o fewn y 60 uchaf. Cafwyd tri eithriad a

<sup>6</sup> Dylid nodi bod y ffigurau gosod mewn trefn yma yn amlinellol: mae'r rhestr i drefnwyd yn cynnwys eitemau gyda sgorau unfath. Gw Atodiadau 10-13 am fanylion.

<sup>7</sup> Defnyddiwyd 41 fel torbwynt yn y drefn restrol er mwyn cynnwys geiriau gyda'r un sgorau. Roedd hyn yn cynnwys pob eitem S>C gyda sgôr o 25 neu'n uwch.

ddisgynnodd yn sylweddol yn y drefn restrol rhwng y tasgau yn syth ar ôl dysgu ac wedi'u hoedi: *family>teulu* (116 yn y prawf wedi'i oedi); *matter>mater* (78) a *middle>canol* (97).

Fel yn y dasg yn syth ar ôl y dysgu, roedd y sgorau adnabod yn sylweddol uwch na'r sgorau galw i'r cof ( $p < 0.0001$ ).

#### 4.3 Ymddygiad dysgu'r cyfranogwyr

Cafwyd cryn amrywiaeth ym mherfformiadau cyfranogwyr yn y tasgau ôl-ddysgu, fel mae'r gwyriadau safonol a gofnodir yn Nhabl 3 yn dangos. Er i'r rhan fwyaf o'r cyfranogwyr (21 o'r 23) sgorio'n uwch ar y dasg C>S na'r dasg S>C, fel y disgwylid, sgoriodd dau yn uwch ar y dasg S>C. Un rheswm posibl am hyn oedd mai C>S oedd ail hanner y dasg, a chyda'r dasg gyfan yn cymryd 60-90 munud, mae'n bosibl fod y ddau gyfranogwr yna wedi dechrau blino. Y gwahaniaeth cymedrig rhwng y sgorau S>C a C>S oedd 56.43 pwynt (Gwyriad Safonol 44.77).

Tabl 3: Tasg yn syth ar ôl y dysgu - sgorau fesul cyfranogwr  
(*uchaf posibl = 600 fesul modd*)

|                          | Sgôr leiaf fesul cyfranogwr | Sgôr uchaf fesul cyfranogwr | Sgôr gymedrig fesul cyfranogwr | Gwyriad Safonol |
|--------------------------|-----------------------------|-----------------------------|--------------------------------|-----------------|
| Saesneg > Cymraeg        | 37                          | 588                         | 235.13                         | 152.62          |
| Cymraeg > Saesneg        | 56                          | 598                         | 291.57                         | 151.42          |
| Sgôr gyfunol (S>C + C>S) | 93                          | 1186                        | 526.7                          | 300.73          |

Tabl 4: Tasg ôl-ddysgu wedi'i hoedi - sgorau fesul cyfranogwr  
(*uchaf posibl = 600 fesul modd*)

|                   | Sgôr leiaf fesul cyfranogwr | Sgôr uchaf fesul cyfranogwr | Sgôr gymedrig fesul cyfranogwr | Gwyriad safonol |
|-------------------|-----------------------------|-----------------------------|--------------------------------|-----------------|
| Saesneg > Cymraeg | 15                          | 587                         | 187.77                         | 151.26          |
| Cymraeg > Saesneg | 19                          | 592                         | 234.82                         | 156.85          |

|                             |    |      |        |       |
|-----------------------------|----|------|--------|-------|
| Sgôr Gyfunol<br>(S>C + C>S) | 78 | 1179 | 422.55 | 303.1 |
|-----------------------------|----|------|--------|-------|

Un o nodau'r prosiect oedd adnabod technegau caffael effeithiol ar gyfer y 300 gair targed. Mae data'r holiadur yn rhoi mewnwelediad i strategaethau a dulliau dysgu'r cyfranogwyr, ac isod nodwn wybodaeth berthnasol gan y chwe chyfranogwr a sgoriodd uchaf ar y dasg yn syth ar ôl y dysgu a'r dasg ôl-ddysgu wedi'i hoedi (mae set ddata lawn yr holiadur yn Atodiad 14). Dangosir sgorau cyfunol (S>C + C>S) y chwe chyfranogwr yma ar y ddwy dasg ôl-ddysgu yn Nhabl 5, ynghyd â gwybodaeth am eu cefndir iaith. Er mwyn hwyluso'r drafodaeth, mae'r cyfranogwyr wedi'u codio c01, c02, c03 ac yn y blaen. Fel y gellir gweld yn Nhabl 5, mae cyfraddau athreuliad cyfranogwyr yn amrywio'n sylweddol, gydag un cyfranogwr yn sgorio'n uwch ar y dasg wedi'i hoedi na'r dasg yn syth ar ôl y dysgu, ac un yn sgorio 354 pwynt yn llai. Roedd pob un o'r sgorwyr uchaf yn gwybod o leiaf un ail iaith.

Tabl 5: Sgorau a chefnidiroedd iaith y chwe chyfranogwr a sgoriodd uchaf

|  | c01                                  | c02                             | c03                                     | c04      | c05      | c06   |
|--|--------------------------------------|---------------------------------|---|----------|----------|---|
| Iaith<br>(ieithoedd)<br>gyntaf                                     | Saesneg                              | Saesneg                         | Malayalam                               | Saesneg  | Saesneg  | Saesneg                                       |
| Gwybodaeth o<br>ieithoedd<br>eraill                                | Almaeneg,<br>Sbaeneg,<br>Portiwgaleg | Almaeneg,<br>Gaeleg yr<br>Alban | Saesneg,<br>Tamil,<br>Hindi,<br>Bengali | Ffrangeg | Ffrangeg | Eidaleg,<br>Ffrangeg,<br>Almaeneg,<br>Sbaeneg |
| Tasg yn syth ar<br>ôl y dysgu                                      | 1186                                 | 1127                            | 913                                     | 861      | 796      | 773   |
| Tasg ôl-ddysgu<br>wedi'i hoedi                                     | 1179                                 | 1056                            | 559                                     | 742      | 808      | 679   |
| Gwahaniaeth<br>rhwng<br>sgorau'r<br>tasgau syth ac<br>wedi'u hoedi | -7                                   | -71                             | -354                                    | -119     | +12      | -94   |

Mae ymatebion yr holiadur yn datgelu gwybodaeth fanwl am ddulliau a thechnegau'r chwech hyn a'r cyfranogwyr eraill i gyd. Mae ymatebion mwyaf amlwg y cyfranogwyr a sgoriodd uchaf yn cynnwys:

- Edrychion nhw ar 8-20 gair y dydd, ac eithrio c01, a edrychodd ar tua 30 am y 10 diwrnod cyntaf, ac wedyn tua 75 ar y diwrnodau dilynol.
- Mewn cyferbyniad â'r rhan fwyaf o gyfranogwyr eraill, llunion nhw ddulliau systematig wrth benderfynu pa eiriau i edrych arnynt bob dydd. Mae'r rhain yn cynnwys (heb eu cyfieithu):
  - *"I came up with a system on the first day. I split them roughly into verbs, adjectives and nouns then put them in groups of ten cards. I then did the maths of how many words I would need to learn a day to cover all 300 and came up with a 10-day system. Every 10 days looked like this: days 1 and 2 I learnt new sets of 10 words, day 3 I covered those 20 words, days 4 and 5 I learnt another two sets, day 6 I covered those, days 7 and 8 I learnt two more sets, day 9 I covered those last two and then on day 10 I revised all 60 words I had learnt. That way, over 5 sets of this routine, I managed to cover all 300 words."* (c04)
  - *"I tried to introduce some new words each day, and then would shuffle the deck of previous flashcards and draw some to practice."* (c02)
  - *"At the beginning of the 50 days I split my flashcards into words that looked 'easy' and 'hard', and started on the easier words, all the way through I would pick words that looked easier for me to learn. I feel in a way this may have set me up for failure from the beginning, however, as I did not feel motivation to attempt the 'hard' words, and therefore never ended up learning those."* (c05)
  - *"When doing 10 words a day to start off with, it was completely random. Once I'd studied all 300 words at least once, I'd go through them all again. The ones I remembered correctly I would put in the 'correct' pile. The ones I didn't remember correctly, I would put in an 'incorrect' pile. Once I had gone over all 300 words again, I would revisit the 'incorrect' pile and repeat the process, adding the words I could now correctly recite into the 'correct' pile and returning the ones I still couldn't recite correctly into the 'incorrect' pile. And so on, until all words were in the 'correct' pile. I would then repeat the process with the 300 words."* (c01)
  - *"I initially looked through them all and put to one side the ones I'd learned over the years (English, England, Welsh, Wales, service (from motorways services) Christmas, thank, night, news) and didn't look at them again till the end (green pile). Then I extracted the ones that were either the same or very similar to English (green pile). Then I made a pile of words where I'd successfully given myself a way of remembering them (orange). Finally I had a pile of words I didn't have anything for (red). I went through the red pile a few times and some of the words made it into the orange pile. As I gradually learned words from the orange pile, they made it into the green pile. A few times I went back to the red pile, but it was really just so that I could say I'd tried."* (c06)
  - *"I did not follow a specific criteria in choosing which words to learn EACH day. However, I must admit that at the beginning of Welsh vocabulary learning, I did prioritize nouns and learned them first over verbs."* (c03)
- Adroddodd pawb ond un o'r chwech eu bod wedi defnyddio'r dechneg allweddeiriau. Adroddodd llawer o'r dysgwyr eraill iddynt ddefnyddio dull yr allweddeiriau hefyd, ond heb roi llawer o enghreifftiau. Roedd y pum cyfranogwr a sgoriodd uchaf ac a ddefnyddiodd y dechneg allweddeiriau yn gallu rhoi enghreifftiau niferus, oedd yn cynnwys cysylltiadau a wnaed trwy eu hail iaith (ieithoedd), a chysylltiadau creadigol.

- Adroddodd pedwar o'r chwe chyfranogwr yma eu bod wedi defnyddio'r dechneg teulu geiriau, gan roi sylw i'r rhannau o eiriau oedd mewn print trwm ar y cardiau fflach. Nododd tri fod hyn wedi bod o gymorth iddynt. (Wrth sgorio'r tasgau ôl-ddysgu, nodwyd bod cyfranogwyr yn drysu aelodau gwahanol o'r un teulu geiriau yn aml).
- O ran y technegau dysgu eraill a ddefnyddiwyd, cyngor cyffredinol, ac awrgymyadau am welliannau, roedd ymatebion y chwe chyfranogwr yma yn cynnwys:
  - dweud y geiriau yn uchel – gan ddefnyddio'r canllaw ynganu a/neu Google Translate
  - ail-ymweld â'r un geiriau yn gyson, S>C yn ogystal â C>S
  - bod yn drefnus o ran trefnu'r cardiau yn bentyrrau – penderfynu ar dechneg am hyn a chadw ati hi
  - rhannu geiriau hwy yn 'dalpau' i'w cofio
  - byddai mwy o wybodaeth neu adnoddau yn ymwneud ag ynganu o gymorth, gan gynnwys gwybodaeth am effaith y 'to bach'.

Gofynnwyd i'r cyfranogwyr beth, yn eu tyb nhw, oedd yn ddifyr, ac yn llai difyr, am y dasg ddysgu. Roedd ymatebion pob un o'r 20 ran amlaf o lawer yn gadarnhaol (dylid nodi mai'r rhain oedd y cyfranogwyr a gwblhaodd bob tasg; gellid tybio mai'r rhai oedd yn teimlo'n llai cadarnhaol am y profiad oedd y rhai a dynnodd allan o'r astudiaeth). Roedd yr her o ddysgu iaith newydd a gwahanol iawn a/neu allu cysylltu eu dysgu â thirwedd ieithyddol Cymru yn agweddau a nodwyd fel rhai arbennig o ddymunol. Nododd naw cyfranogwr fod glynu wrth y patrwm gwaith dysgu yn agwedd lai dymunol, neu fwy heriol. Adroddodd tri chyfranogwr (gan gynnwys c03 a c04) fod peidio â gwybod sut i ynganu'r geiriau targed wedi profi'n anodd. Yr ymateb mwyaf cadarnhaol oedd un c01, a wnaeth y sylw *"there was no part of [the task] that I didn't enjoy..... It would be good if the university could do this with other languages, I would happily do this again with another language. I am grateful for the opportunity to have learned some Welsh, and this was a good way to do so as it was only 10 minutes a day, which meant it was a manageable commitment. Having all the information and cards in one clear zip-up folder was also very helpful."*

Mae efallai'n arwydd o'r ymateb cadarnhaol i'r dasg (a'r dymuniad i wybod mwy am ynganu'r Gymraeg) fod 12 cyfranogwr wedi mynychu sesiwn iaith Gymraeg ar-lein a gynhalion ni am 18:00-19:15 ar ddydd Gwener 23 Chwefror 2024. Dyma un o'r "gwobrau" a gynigiwyd i'r cyfranogwyr a gwblhaodd bob tasg. Dangosodd yr adborth gan y cyfranogwyr eu bod wedi gweld y sesiwn yn un ddefnyddiol a difyr. Ysgrifennodd un cyfranogwr *"The session was very informative and interesting. You inspired me to create a video on my FB page (with over 133,000 followers) sharing my: 'Dw i'n siarad Cymraeg' for the first time!"* Cydsyniodd i ni gynnwys y ddolen i'w fideo yn yr adroddiad hwn:  
<https://www.facebook.com/share/v/FcFEiH1eZgyzQePh/?mibextid=WC7FNe>

## 5. CANLYNIADAU AC AWGRYMIADAU AR GYFER DATBLYGU YN Y DYFODOL

Cynhyrchodd y prosiect set gyfoethog o ddata. Adroddwyd ar y canfyddiadau a'r allbynnau mwyaf perthnasol uchod, a gellir dod o hyd iddynt yn yr atodiadau. Gallai'r rhain hysbysu cwricwla dysgu Cymraeg; deunyddiau cwrs; asesiadau; addysg/dulliau athrawon, a thechnegau hunan-astudio, trwy roi gwybodaeth am ba eiriau hanfodol sydd angen y sylw

mwyaf; ymgorffori technegau effeithiol o fewn deunydd cyrsiau; mynd i'r afael ag athreuliad; ac ati.

Ar ben hynny mae potensial i archwilio'r data hyn yn bellach, a gallai astudiaethau pellach gynnwys:

- Dadansoddi gwallau yn y tasgau ôl-ddysgu i ganfod camau o wybodaeth gynyddrannol am eiriau, ac i nodi unrhyw batrymau camsillafu cyffredin
- Dadansoddi gwallau yn y tasgau ôl-ddysgu i wahaniaethu rhwng eitemau na chawsant eu dwyn i'r cof o gwbl, a'r rhai a gofiwyd yn rhannol
- Dadansoddi gwallau yn y tasgau ôl-ddysgu i nodi pa eitemau sy'n cael eu drysu'n gyffredin oherwydd tebygrwydd orgraffyddol (e.e. bod-dod, newid-newydd, agos-aros) neu semantig (e.e. ifanc-bach, diwetha-olaf)
- Archwilio'r cysylltiadau rhwng yr ymddygiadau dysgu ar gyfer geiriau penodol a adroddir gan unigolion, a'u sgorau ôl-ddysgu ar y geiriau hynny
- Edrych ar y berthynas rhwng gwybodaeth flaenorol cyfranogwyr o ieithoedd a'u perfformiad yn y tasgau ôl-ddysgu
- Archwilio patrymau athreuliad unigolion, a chysylltiadau rhwng hyn ac ymddygiadau dysgu unigol (ceir peth tystiolaeth, er enghraifft, fod dulliau allweddeiriau yn esgor ar ddargadw geiriau'n gryfach)
- Ymchwilio'r berthynas rhwng faint o weithiau y deuir ar draws pob gair a'r bylchau rhwng y rhain, a llwyddo i'w caffael
- Llunio technegau caffael ar gyfer y geiriau amllder uchel hynny sydd yn fwyaf heriol i'w dysgu

Mae'r prosiect wedi dangos bod modd i ddysgwyr brwdfrydig gaffael y rhan fwyaf o'r 300 enw/berf/ansoddair mwyaf aml yn Gymraeg trwy ddysgu am 10 munud y dydd dros 50 diwrnod. Mae hyn yn ei gwneud yn ymarferol i roi mwy o bwyslais ar eirfa ddefnyddiol ar ddechrau maes llafur, a bydd ychwanegu at hyn gyda chyfleoedd i ddefnyddio geiriau sydd newydd eu caffael mewn cyd-destun yn dyfnhau ac yn ymwreiddio gwybodaeth o eiriau ymhellach. Dengys cymhellant parhaus y cyfranogwyr a gwblhaodd y tasgau y gallai dysgwyr barhau â'u cynllun dysgu y tu hwnt i 50 diwrnod, gan gymhwyso strategaethau caffael y tu hwnt i'r 300 gair cyntaf.

## 6. CYFEIRIADAU

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**ATODIAD 1:**  
**Geiriau targed wedi'u rhestru yn nhrefn amllder**

|    |                  |               |     |                   |             |
|----|------------------|---------------|-----|-------------------|-------------|
| 1  | bod              | to be         | 51  | darllen           | to read     |
| 2  | cael             | to have       | 52  | hanes             | history     |
| 3  | gwneud           | to do         | 53  | gwahanol          | different   |
| 4  | mynd             | to go         | 54  | <b>gwybodaeth</b> | knowledge   |
| 5  | <b>Cymru</b>     | Wales         | 55  | cofio             | to remember |
| 6  | dod              | to come       | 56  | codi              | to get up   |
| 7  | gallu            | to be able to | 57  | <b>llun</b>       | picture     |
| 8  | mawr             | big           | 58  | gwlad             | country     |
| 9  | <b>gweld</b>     | to see        | 59  | cyfnod            | period      |
| 10 | dweud            | to say        | 60  | cymryd            | to take     |
| 11 | da               | good          | 61  | <b>wythnos</b>    | week        |
| 12 | peth             | thing         | 62  | <b>digwydd</b>    | to happen   |
| 13 | rhoi             | to give       | 63  | <b>bywyd</b>      | life        |
| 14 | pobl             | people        | 64  | cig               | meat        |
| 15 | <b>Cymraeg</b>   | Welsh         | 65  | gadael            | to leave    |
| 16 | newydd           | new           | 66  | nifer             | number      |
| 17 | <b>gwaith</b>    | work          | 67  | newid             | to change   |
| 18 | blwyddyn         | year          | 68  | tro               | turn        |
| 19 | iaith            | language      | 69  | creu              | to create   |
| 20 | plant            | children      | 70  | gwefan            | website     |
| 21 | <b>ysgol</b>     | school        | 71  | clywed            | to hear     |
| 22 | <b>defnyddio</b> | to use        | 72  | newyddion         | news        |
| 23 | <b>gwybod</b>    | to know       | 73  | cadw              | to keep     |
| 24 | dydd             | day           | 74  | math              | type        |
| 25 | rhaid            | necessity     | 75  | ifanc             | young       |
| 26 | <b>rhan</b>      | part          | 76  | teulu             | family      |
| 27 | byd              | world         | 77  | <b>dangos</b>     | to show     |
| 28 | tŷ               | house         | 78  | cwmni             | company     |
| 29 | angen            | need          | 79  | pwysig            | important   |
| 30 | meddwl           | to think      | 80  | llawn             | full        |
| 31 | bach             | small         | 81  | stori             | story       |
| 32 | ffordd           | way           | 82  | arbennig          | special     |
| 33 | enw              | name          | 83  | cynnwys           | content     |
| 34 | amser            | time          | 84  | <b>arian</b>      | money       |
| 35 | rhaglen          | programme     | 85  | cynnal            | to convene  |
| 36 | <b>gweithio</b>  | to work       | 86  | edrych            | to look     |
| 37 | mis              | month         | 87  | dyn               | man         |
| 38 | hen              | old           | 88  | prif              | main        |
| 39 | eisiau           | want          | 89  | <b>cynllun</b>    | plan        |
| 40 | llyfr            | book          | 90  | cynulliad         | assembly    |
| 41 | <b>dysgu</b>     | to learn      | 91  | credu             | to believe  |
| 42 | siarad           | to speak      | 92  | dilyn             | to follow   |
| 43 | aelod            | member        | 93  | ysgrifennu        | to write    |
| 44 | lle              | place         | 94  | cenedlaethol      | national    |
| 45 | pen              | head          | 95  | derbyn            | to accept   |
| 46 | gwasanaeth       | service       | 96  | lleol             | local       |
| 47 | gair             | word          | 97  | siŵr              | sure        |
| 48 | llywodraeth      | government    | 98  | chwarae           | to play     |
| 49 | cyfle            | opportunity   | 99  | mam               | mother      |
| 50 | dechrau          | beginning     | 100 | teimlo            | to feel     |

|     |                   |            |     |                   |                 |
|-----|-------------------|------------|-----|-------------------|-----------------|
| 101 | car               | car        | 151 | tîm               | team            |
| 102 | syniad            | idea       | 152 | uchel             | high            |
| 103 | taith             | journey    | 153 | <b>nos</b>        | night           |
| 104 | cyngor            | council    | 154 | data              | data            |
| 105 | merch             | girl       | 155 | <b>rhannu</b>     | to share        |
| 106 | <b>byw</b>        | to live    | 156 | Saesneg           | English         |
| 107 | tynnu             | to pull    | 157 | hanner            | half            |
| 108 | iawn              | OK         | 158 | deall             | to understand   |
| 109 | cwestiwn          | question   | 159 | tebyg             | similar         |
| 110 | <b>diwedd</b>     | end        | 160 | iechyd            | health          |
| 111 | cyhoeddi          | to publish | 161 | cofnod            | record          |
| 112 | cyrraedd          | to arrive  | 162 | <b>cân</b>        | song            |
| 113 | ceisio            | to attempt | 163 | grŵp              | group           |
| 114 | chwilio           | to seek    | 164 | ystyried          | to consider     |
| 115 | troi              | to turn    | 165 | dal               | to catch        |
| 116 | <b>cysylltu</b>   | to connect | 166 | sôn               | to mention      |
| 117 | bwyd              | food       | 167 | prosiect          | project         |
| 118 | cyflwyno          | to present | 168 | sir               | county          |
| 119 | helpu             | to help    | 169 | <b>digwyddiad</b> | event           |
| 120 | polisi            | policy     | 170 | gyrru             | to drive        |
| 121 | <b>mudiad</b>     | movement   | 171 | golygu            | to mean         |
| 122 | sicrhau           | to ensure  | 172 | problem           | problem         |
| 123 | busnes            | business   | 173 | profiad           | experience      |
| 124 | cynnig            | to offer   | 174 | bore              | morning         |
| 125 | ardal             | area       | 175 | <b>cefnogi</b>    | to support      |
| 126 | eglwys            | church     | 176 | gwir              | real            |
| 127 | maes              | field      | 177 | peidio            | to cease        |
| 128 | diolch            | thanks     | 178 | hir               | long            |
| 129 | un                | same       | 179 | gogledd           | north           |
| 130 | <b>symud</b>      | to move    | 180 | ymchwil           | research        |
| 131 | ffrind            | friend     | 181 | <b>canol</b>      | middle          |
| 132 | sylw              | attention  | 182 | colli             | lose            |
| 133 | tad               | father     | 183 | pell              | far             |
| 134 | hoffi             | to like    | 184 | <b>ateb</b>       | answer          |
| 135 | cyfrwng           | medium     | 185 | <b>ymateb</b>     | response        |
| 136 | <b>diweddar</b>   | recent     | 186 | anodd             | difficult       |
| 137 | môr               | sea        | 187 | cymorth           | aid             |
| 138 | cartref           | home       | 188 | cymuned           | community       |
| 139 | cwrs              | course     | 189 | mwynhau           | to enjoy        |
| 140 | gofyn             | to ask     | 190 | trafod            | to discuss      |
| 141 | <b>cymdeithas</b> | society    | 191 | <b>prifysgol</b>  | university      |
| 142 | dewis             | to choose  | 192 | clwb              | club            |
| 143 | amlwg             | obvious    | 193 | plaid             | political party |
| 144 | <b>addysg</b>     | education  | 194 | nodi              | to note         |
| 145 | datblygu          | to develop | 195 | de                | right           |
| 146 | enghraifft        | example    | 196 | awr               | hour            |
| 147 | aros              | to wait    | 197 | oes               | era             |
| 148 | cyfarfod          | meeting    | 198 | dosbarth          | class           |
| 149 | cyfres            | series     | 199 | gofal             | care            |
| 150 | oed               | age        | 200 | trio              | to try          |

|     |                     |              |     |                   |              |
|-----|---------------------|--------------|-----|-------------------|--------------|
| 201 | <b>swydd</b>        | job          | 251 | dŵr               | water        |
| 202 | mater               | matter       | 252 | gosod             | to set       |
| 203 | cyffredinol         | general      | 253 | achos             | cause        |
| 204 | talw                | to pay       | 254 | pwylgor           | committee    |
| 205 | <b>canolfan</b>     | centre       | 255 | cyfeiriad         | address      |
| 206 | gwyb                | excellent    | 256 | agos              | near         |
| 207 | ochr                | side         | 257 | <b>ymweld</b>     | to visit     |
| 208 | parhau              | to continue  | 258 | adnabod           | to recognise |
| 209 | oen                 | lamb         | 259 | <b>diddordeb</b>  | interest     |
| 210 | rhestr              | list         | 260 | hawdd             | easy         |
| 211 | cerdded             | to walk      | 261 | safon             | standard     |
| 212 | dyfodol             | future       | 262 | <b>swyddog</b>    | officer      |
| 213 | llaw                | hand         | 263 | cynhyrchu         | to produce   |
| 214 | prynu               | to buy       | 264 | golwg             | vision       |
| 215 | barn                | opinion      | 265 | cerddoriaeth      | music        |
| 216 | olaf                | final        | 266 | ffaith            | fact         |
| 217 | adroddiad           | report       | 267 | llais             | voice        |
| 218 | <b>noson</b>        | evening      | 268 | rhiant            | parent       |
| 219 | munud               | minute       | 269 | gŵyl              | festival     |
| 220 | torri               | to break     | 270 | dathlu            | to celebrate |
| 221 | rhyfel              | war          | 271 | gwerth            | value        |
| 222 | arwain              | to lead      | 272 | gwobr             | prize        |
| 223 | Sul                 | Sunday       | 273 | cyfieithu         | to translate |
| 224 | rhyw                | sex          | 274 | cerdd             | poem         |
| 225 | bwrdd               | table        | 275 | erthygl           | article      |
| 226 | <b>canu</b>         | to sing      | 276 | cytuno            | to agree     |
| 227 | tipyn               | bit          | 277 | anfon             | to send      |
| 228 | trefnu              | to organise  | 278 | <b>ariannol</b>   | financial    |
| 229 | gwyn                | white        | 279 | drwg              | bad          |
| 230 | <b>cefn</b>         | back         | 280 | <b>swyddfa</b>    | office       |
| 231 | siop                | shop         | 281 | <b>defnydd</b>    | use          |
| 232 | gweinidog           | minister     | 282 | adran             | department   |
| 233 | blog                | blog         | 283 | sgwrs             | chat         |
| 234 | diwethaf            | last         | 284 | <b>diddorol</b>   | interesting  |
| 235 | papur               | paper        | 285 | penodol           | specific     |
| 236 | drws                | door         | 286 | aml               | frequent     |
| 237 | gobeithio           | to hope      | 287 | cynnar            | early        |
| 238 | penderfynu          | to decide    | 288 | côr               | choir        |
| 239 | galw                | to call      | 289 | capel             | chapel       |
| 240 | person              | person       | 290 | athro             | teacher      |
| 241 | tywydd              | weather      | 291 | pwynt             | point        |
| 242 | <b>cymdeithasol</b> | social       | 292 | <b>cysylltiad</b> | connection   |
| 243 | sefydlu             | to establish | 293 | darn              | piece        |
| 244 | canrif              | century      | 294 | proses            | process      |
| 245 | meithrin            | nursery      | 295 | <b>ymddangos</b>  | to appear    |
| 246 | tir                 | land         | 296 | gwrando           | to listen    |
| 247 | ymuno               | to join      | 297 | myfyriwr          | student      |
| 248 | Nadolig             | Christmas    | 298 | safle             | position     |
| 249 | rheswm              | reason       | 299 | corff             | body         |
| 250 | neges               | message      | 300 | llafur            | labour       |

## ATODIAD 2

Sleid a ddefnyddiwyd mewn dosbarthiadau ar gyfer recriwtio



Swansea  
University  
Prifysgol  
Abertawe



Arts and  
Humanities  
Research Council



dysgucymraeg.cymru  
learnwelsh.cymru

### The challenge:

- Learn (up to) 300 words in Welsh
- 10 mins per day, 50 days

### Eligibility:

- don't know any Welsh\*

### Why should you participate?

- learn some Welsh!
- develop your personal learning techniques
- experience participating in a research project
- receive an Amazon voucher
- opportunity to attend a specially designed Welsh lesson
- certificate of participation, with wording appropriate a cv or job application

many thanks to those who have  
already signed up!! –  
you will have received an email with  
a link to a consent form; once you  
return the form you will get another  
email explaining where to collect  
your learning pack

*contact: Prof Tess Fitzpatrick – [t.fitzpatrick@swansea.ac.uk](mailto:t.fitzpatrick@swansea.ac.uk)*

### ATODIAD 3

Gwybodaeth ar gyfer darpar gyfranogwyr

(wedi'i chynnwys mewn ffurflen Google ynghyd â gwiriad cymhwystra a ffurflen gydsynio)

#### **Thank you for your interest in joining our Welsh Vocabulary project**

The project investigates techniques for acquiring Welsh vocabulary, for people who have not previously studied/acquired Welsh. We are interested in how many words people can learn by studying for 10 minutes each day, for 50 consecutive days. We will also use the data to identify which words seem to be easier or more difficult for people to acquire. In other words, our focus is on the words and the task; we are not judging your individual learning capability.

Participants should be first language or highly proficient users of English, and should not be Welsh speakers. As a guide, if you know the Welsh words for two or more of these words: *go, give, big, new, people, children*, you are NOT eligible to take part in this project.

Project participants will receive a learning pack with instructions and vocabulary flashcards, and will be asked to:

- **spend 10 mins per day on word learning** for 50 consecutive days between November and January, starting no later than 29 November. This will be independent study in your own time, using techniques described in the instructions;
- **complete an online task** at the end of the 50-day period to see which words you have acquired (the test will take approximately 50-60 minutes);
- **repeat the online task** 2-4 weeks later to see which words you still remember;
- **complete an online questionnaire** about your learning experience.

In recognition of your contribution to the project, after completing the learning period and online tasks you will:

- receive an Amazon voucher
- be invited to attend an optional Welsh language taster session designed specifically for participants in this project
- receive a certificate of participation, with wording appropriate for use in a cv or job application.

The project is led by Tess Fitzpatrick, Professor of Applied Linguistics, and Steve Morris, Research Officer, in the School of Culture and Communication at Swansea University. If you have any questions about the project you can contact us on [t.fitzpatrick@swansea.ac.uk](mailto:t.fitzpatrick@swansea.ac.uk) and [s.morris@swansea.ac.uk](mailto:s.morris@swansea.ac.uk) (please send any correspondence to both email addresses).

*This study has been approved by the Swansea University Ethics Committee (reference 1-2023-7871-6856). The study is jointly funded by the AHRC (the UK Arts and Humanities Research Council) and the National Centre for Learning Welsh.*

**ATODIAD 4**  
**Enghreifftiau o gardiau fflach**

**bod**

**to be**

|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |

**gweld**

**to see**

|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |

**ATODIAD 5**  
**Taflen wybodaeth ar gyfer cyfranogwyr**



## Instruction sheet

Thank you for participating in our Welsh vocabulary project. Here's what we would like you to do:

- You have received a 'learning pack' containing
  - 300 flash cards
  - a "keep track of your 50 days of learning" guide
  - a guide to Welsh pronunciation
  - a copy of the **information and consent form** you signed online (this is only for reference – you don't need to complete it again)
  - this **instruction sheet**
- Decide which day you will start your learning period – the start date must be between 13<sup>th</sup> and 29<sup>th</sup> November. You can note your start date on the "keep track of your 50 days of learning" **guide** (see the instructions on the guide). You should study for 10 minutes each day, for 50 consecutive days.
- Plan your learning approach: **How many words each day?**

You will only be able to look at/learn some of the words each day, and you'll almost certainly need to look at each flashcard several times in order to learn each word. We suggest spacing your learning – e.g. each day try learning 8-10 new words, and revise words from previous days that you may have forgotten. We realise that learning 300 words in 50 days is a big challenge, but you may surprise yourself with how well you do!
- Plan your learning approach: **How will you learn?**

You will develop your own learning techniques, and we will be interested to hear about these at the end of the project. We suggest that you also try the following:

  - **Using flashcards:**
    - Look at the English word and try to recall the Welsh word (you can cover the Welsh word, or fold the flashcard in half so that you only see the Welsh).
    - Each day try learning 8-10 new words, and revise words from previous days that you may have forgotten. Every time you look at a flashcard, please tick the box on that flashcard for the relevant day of learning - see instructions on the "keep track of your 50 days of learning" **guide**. (This is part of our data collection; we will ask you to return the flashcards at the end of the project).
    - Vary the order in which you revise/learn the words.
  - **Keyword technique:**
    - Look at the Welsh word on the flashcard and think of a word in English (or your L1) that resembles it in some way (e.g. the Welsh word *ci* (=dog) is pronounced the same way as the English word *key*) – this word (*key* in our example) is your "keyword".





- Create a visual image – either in your head, or draw it – that links the meaning of the keyword with the meaning of the Welsh word. On the back of the card, you can draw the image and/or note the keyword.
- Note that this works better for some words than others – use it only where it is possible for you to create a keyword.
- **Word family technique:**
  - Some words that are related in meaning, share a common root, or a common string of letters (e.g. in English, **drink**, **drinker**, **drinkable**, or **unworkable**, **works**, **worker**, **work**) – these are sometimes referred to as members of the same word family.
  - Some of the words on the flashcards are from the same word family, and where this is the case we have **bolded** the shared letters. Noticing these patterns may help with learning.
- **Other information:**
  - The 300 target words are all adjectives, verbs or nouns. Verbs are preceded by “to” (so, *to work* is the verb, and *work* is the noun).
  - Feel free to write on the flashcards, or draw keyword images etc., if this helps your learning.
  - Welsh words may appear difficult to pronounce at first, because the letters are used differently from the way they are used in English. For example, in Welsh, w and y are vowels. There is a pronunciation guide in your learning pack, which you can use to support your learning if you wish.
- **What to do at the end of your 50 days of learning?**
  - First, congratulate yourself on completing the learning task!
  - Next, send an email (addresses below) to tell us you have completed your 50 days of learning. We will then send you a link to an online (written) task to see how many of the 300 words you can remember. We will send you a follow-up task 2-4 weeks later. Please complete the tasks **as soon as possible** after you receive them, and please don’t do any further learning until after you have completed the second task.
  - Then, we will send you an online questionnaire to find out more about your learning experience.
  - Once you have completed all the above, we will contact you to thank you, to give you some feedback on the tasks (if you wish), and to arrange for you to receive your tokens of appreciation (voucher, certificate, class invitation). We will ask you to return the flashcards, but can give you a list of the 300 words for you to keep if you wish.
- **Any questions?**
  - Contact Tess on [t.fitzpatrick@swansea.ac.uk](mailto:t.fitzpatrick@swansea.ac.uk) and Steve on [s.morris@swansea.ac.uk](mailto:s.morris@swansea.ac.uk)

**We hope you enjoy learning your Welsh words – good luck!**





## Keeping track of your 50 days of learning

|    |    |    |    |    |   |    |    |    |    |    |    |    |    |    |   |    |    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|---|----|----|----|----|----|----|----|----|----|---|----|----|----|----|----|----|----|----|----|----|----|
| 1  | 2  | 3  | 4  | 5  | ✓ | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | ✓ | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 | ✓ | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | ✓ | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |

|            |            |            |
|------------|------------|------------|
| 13/11/2023 | 05/12/2023 | 27/12/2023 |
| 14/11/2023 | 06/12/2023 | 28/12/2023 |
| 15/11/2023 | 07/12/2023 | 29/12/2023 |
| 16/11/2023 | 08/12/2023 | 30/12/2023 |
| 17/11/2023 | 09/12/2023 | 31/12/2023 |
| 18/11/2023 | 10/12/2023 | 01/01/2024 |
| 19/11/2023 | 11/12/2023 | 02/01/2024 |
| 20/11/2023 | 12/12/2023 | 03/01/2024 |
| 21/11/2023 | 13/12/2023 | 04/01/2024 |
| 22/11/2023 | 14/12/2023 | 05/01/2024 |
| 23/11/2023 | 15/12/2023 | 06/01/2024 |
| 24/11/2023 | 16/12/2023 | 07/01/2024 |
| 25/11/2023 | 17/12/2023 | 08/01/2024 |
| 26/11/2023 | 18/12/2023 | 09/01/2024 |
| 27/11/2023 | 19/12/2023 | 10/01/2024 |
| 28/11/2023 | 20/12/2023 | 11/01/2024 |
| 29/11/2023 | 21/12/2023 | 12/01/2024 |
| 30/11/2023 | 22/12/2023 | 13/01/2024 |
| 01/12/2023 | 23/12/2023 | 14/01/2024 |
| 02/12/2023 | 24/12/2023 | 15/01/2024 |
| 03/12/2023 | 25/12/2023 | 16/01/2024 |
| 04/12/2023 | 26/12/2023 | 17/01/2024 |

**ATODIAD 7**  
**Dogfen ynganu**

## PRONOUNCING WORDS IN WELSH

Some Welsh letters are pronounced differently from English, for example:

| Welsh letter | sounds like...  | Welsh letter | sounds like...   |
|--------------|---|--------------|--|
| c            | c as in <i>cat</i>  | ll           | (no equivalent in English) – put tongue to roof of mouth and blow    |
| ch           | ch as in <i>Bach</i> the composer (never ch as in church) | s + i        | sh as in <i>shop</i>   |
| dd           | th as in <i>them</i>                                      | th           | th as in <i>thing</i>  |
| f            | v as in <i>of</i>   | u            | ee as in <i>tea</i>  |
| ff           | f as in <i>off</i>  | w            | oo as in <i>soon</i> OR w as in <i>wing</i>                          |
| g            | g as in <i>gun</i>  | y            | u as in <i>up</i> OR, in last syllable of a word, i as in <i>big</i> |

ATODIAD 8  
Cyfarwyddiadau ar gyfer y Dasg yn syth ar ôl y dysgu

## Welsh Vocabulary Project - immediate post-learning task

Thank you for participating in our Welsh Vocabulary Project, and congratulations on completing your 50-day learning period. We really appreciate your hard work and your persistence. (\*Even if you had to miss some days of study, please complete this task).

PLEASE READ THE FOLLOWING INSTRUCTIONS CAREFULLY:

Please complete the task below as soon as you have completed your 50 days of learning. There are two parts to the task. In Part 1, you will be given an English word and asked to write the Welsh translation. In Part 2 you will be given a Welsh word and asked to write the English translation. Altogether the task should take around 60-80 minutes to complete.

Please bear in mind the following:

- please complete the task **without** referring to any learning materials or reference materials, and **without** using the "back" button to refer to previous questions/answers
- we understand that you probably will only remember *some* of the words from your learning pack; any new word you have learned is an achievement, so please **don't worry if there are questions you are unable to answer**
- the main purpose of the study is to find out which words seem easier for learners to remember, and which seem more difficult; **we are assessing the words, not you as a learner**
- if you only partly remember a word, or are not sure of the spelling, write it as best you can
- **don't use the "back" button** to revisit questions on previous pages - complete each pages as best you can then click "next" to proceed.

After you have completed both parts of the task and submitted your answers, **please do not spend any further time learning the words**. We will ask you to repeat the task in two weeks time in order to see how many words you have retained since this first test, without any further learning.

\*We understand that some of you were not able to complete the learning period, or to study every day. After you have completed all the vocabulary tasks we will send you a questionnaire, which will include a question about any interruptions, pauses or difficulties with your studying. Your data is still valuable to us.

**IMPORTANT:** Please try to complete the task in one sitting. **If you have to exit the form before completing and submitting your answers, your answers will NOT be automatically stored and you will have to start the task over again.** HOWEVER, if you log into your Google account using the option below, your answers will be stored in draft form, enabling you to return to the FORM (via the url) and continue from where you left off.

**ATODIAD 9**  
**Protocolau marcio'r tasgau ôl-ddysgu**

- 2 points for correct answer
  - 1 point for error but recognisable (minor spelling errors)
  - 0 points for incorrect answer
  - Leave blank if no response
- 
- Ignore capitalisation
  - Ignore inclusion or exclusion of *to bach*
  - Only accept the word forms that were on the flashcards (see list of target words)
  - Answers indicating reference to materials other than flashcards – e.g. *i a/w* for “to call” (Google translate gives *i a/w*) score 0.
  - For Welsh>English, ignore whether “to” is included for verbs or not – correct with or without
  - For Welsh>English, where an answer is given that is semantically/orthographically similar to the correct answer, but is elsewhere on the list (e.g. *gwybod* > knowledge (should be know)), score is 0.
  - For Welsh>English, where an answer is given that is synonymous with the intended answer and is NOT elsewhere on the list (e.g. *dechrau* > start (translation on cards = “beginning”), score is 1.
  - For Welsh>English, where an answer is given that is semantically and orthographically similar, to the intended answer but is NOT elsewhere on the list (e.g. *rhaid* > necessary (should be “necessity”)), 1 is given.
  - For noun-verbs (e.g. turn) if “to” is included in answer (to turn) although it was intended as noun on flashcard (~~to~~turn), or vice versa, score is 2.
  - Accept “The news” for “news” (in response to *newyddion*)
  - For Welsh>English ignore obvious typos (e.g. “specail” for “special”)
  - If two alternatives given (e.g. *merch* > woman or girl), and one is correct, score is 1.
  - Answer “?” is treated same as blank (and replaced with blank on spreadsheet)
  - Where an answer is given that is a target word elsewhere in the list, but not for this item, 0 is given (e.g. house > *cartref* (should be *tŷ*). This is also the case where there is an orthographic as well as semantic connection (to work > *gwaith* (should be *gweithio*)).

# ATODIAD 10

Geiriau targed yn nhrefn eu “dysgadwyedd” cynhyrchiol (Saesneg > Cymraeg)  
gyda chyfanswm sgorau 23 o gyfranogwyr (mwyaf posibl = 46 fesul gair)

| Ciw S>C    | TARGED    | sgôr | Ciw S>C         | TARGED   | sgôr |
|------------|-----------|------|-----------------|----------|------|
| Welsh      | Cymraeg   | 42   | English         | Saesneg  | 28   |
| data       | data      | 42   | lamb            | oen      | 28   |
| meat       | cig       | 41   | Sunday          | Sul      | 28   |
| small      | bach      | 40   | teacher         | athro    | 28   |
| car        | car       | 40   | turn            | tro      | 27   |
| thanks     | diolch    | 40   | name            | enw      | 26   |
| big        | mawr      | 39   | to help         | helpu    | 26   |
| school     | ysgol     | 39   | sea             | môr      | 26   |
| children   | plant     | 38   | long            | hir      | 26   |
| father     | tad       | 38   | thing           | peth     | 25   |
| morning    | bore      | 38   | work            | gwaith   | 25   |
| Christmas  | Nadolig   | 38   | language        | iaith    | 25   |
| hour       | awr       | 37   | world           | byd      | 25   |
| day        | dydd      | 36   | picture         | llun     | 25   |
| problem    | problem   | 36   | food            | bwyd     | 25   |
| age        | oed       | 35   | half            | hanner   | 25   |
| night      | nos       | 35   | political party | plaid    | 25   |
| university | prifysgol | 35   | centre          | canolfan | 25   |
| club       | clwb      | 35   | door            | drws     | 25   |
| people     | pobl      | 34   | process         | proses   | 25   |
| old        | hen       | 34   | to come         | dod      | 24   |
| girl       | merch     | 34   | month           | mis      | 24   |
| blog       | blog      | 34   | to like         | hoffi    | 24   |
| person     | person    | 34   | north           | gogledd  | 24   |
| house      | tŷ        | 33   | bad             | drwg     | 24   |
| group      | grŵp      | 33   | church          | eglwys   | 23   |
| water      | dŵr       | 33   | to drive        | grru     | 23   |
| team       | tîm       | 32   | right           | de       | 23   |
| shop       | siop      | 32   | week            | wythnos  | 22   |
| head       | pen       | 31   | business        | busnes   | 22   |
| family     | teulu     | 31   | hand            | llaw     | 22   |
| matter     | mater     | 31   | sex             | rhyw     | 22   |
| paper      | papur     | 31   | to sing         | canu     | 22   |
| chapel     | capel     | 31   | land            | tir      | 22   |
| good       | da        | 30   | parent          | rhiant   | 22   |
| type       | math      | 30   | book            | llyfr    | 21   |
| story      | stori     | 30   | to learn        | dysgu    | 21   |
| money      | arian     | 30   | history         | hanes    | 21   |
| mother     | mam       | 30   | to create       | creu     | 21   |
| friend     | ffrind    | 30   | man             | dyn      | 21   |
| project    | prosiect  | 30   | sure            | siŵr     | 21   |
| county     | sir       | 30   | high            | uchel    | 21   |
| middle     | canol     | 30   | far             | pell     | 21   |
| to be      | bod       | 29   | white           | gwyn     | 21   |
| choir      | côr       | 29   | body            | corff    | 21   |
| Wales      | Cymru     | 28   | to have         | cael     | 20   |
| new        | newydd    | 28   | part            | rhan     | 20   |
| time       | amser     | 28   | to work         | gweithio | 20   |
| OK         | iawn      | 28   | to live         | byw      | 20   |
| policy     | polisi    | 28   | area            | ardal    | 20   |

| <b>Ciw S&gt;C</b> | <b>TARGED</b> | <b>sgôr</b> |
|-------------------|---------------|-------------|
| to wait           | aros          | 20          |
| lose              | colli         | 20          |
| to note           | nodi          | 20          |
| back              | cefn          | 20          |
| to go             | mynd          | 19          |
| country           | gwlad         | 19          |
| life              | bywyd         | 19          |
| full              | llawn         | 19          |
| question          | cwestiwn      | 19          |
| to turn           | troi          | 19          |
| field             | maes          | 19          |
| health            | iechyd        | 19          |
| song              | cân           | 19          |
| answer            | ateb          | 19          |
| class             | dosbarth      | 19          |
| job               | swydd         | 19          |
| minute            | munud         | 19          |
| fact              | ffaith        | 19          |
| piece             | darn          | 19          |
| labour            | llafur        | 19          |
| to remember       | cofio         | 18          |
| website           | gwefan        | 18          |
| news              | newyddion     | 18          |
| company           | cwmni         | 18          |
| main              | prif          | 18          |
| to believe        | credu         | 18          |
| local             | lleol         | 18          |
| journey           | taith         | 18          |
| end               | diwedd        | 18          |
| home              | cartref       | 18          |
| series            | cyfres        | 18          |
| era               | oes           | 18          |
| excellent         | gwydh         | 18          |
| evening           | noson         | 18          |
| to break          | torri         | 18          |
| message           | neges         | 18          |
| near              | agos          | 18          |
| officer           | swyddog       | 18          |
| poem              | cerdd         | 18          |
| article           | erthygl       | 18          |
| department        | adran         | 18          |
| chat              | sgwrs         | 18          |
| to be able to     | gallu         | 17          |
| to speak          | siarad        | 17          |
| word              | gair          | 17          |
| number            | nifer         | 17          |
| council           | cyngor        | 17          |
| education         | addysg        | 17          |
| to try            | trio          | 17          |
| to buy            | prynu         | 17          |

| <b>Ciw S&gt;C</b> | <b>TARGED</b> | <b>sgôr</b> |
|-------------------|---------------|-------------|
| war               | rhyfel        | 17          |
| table             | bwrdd         | 17          |
| cause             | achos         | 17          |
| festival          | gŵyl          | 17          |
| prize             | gwobr         | 17          |
| point             | pwynt         | 17          |
| student           | myfyriwr      | 17          |
| year              | blwyddyn      | 16          |
| want              | eisiau        | 16          |
| place             | lle           | 16          |
| to get up         | codi          | 16          |
| same              | un            | 16          |
| record            | cofnod        | 16          |
| care              | gofal         | 16          |
| side              | ochr          | 16          |
| final             | olaf          | 16          |
| nursery           | meithrin      | 16          |
| value             | gwerth        | 16          |
| to see            | gweld         | 15          |
| necessity         | rheid         | 15          |
| way               | ffordd        | 15          |
| young             | ifanc         | 15          |
| to show           | dangos        | 15          |
| similar           | tebyg         | 15          |
| experience        | profiad       | 15          |
| to enjoy          | mwynhau       | 15          |
| to pay            | talw          | 15          |
| future            | dyfodol       | 15          |
| specific          | penodol       | 15          |
| need              | angen         | 14          |
| different         | gwahanol      | 14          |
| meeting           | cyfarfod      | 14          |
| to mention        | sôn           | 14          |
| research          | ymchwil       | 14          |
| bit               | tipyn         | 14          |
| minister          | gweinidog     | 14          |
| reason            | rheswm        | 14          |
| to set            | gosod         | 14          |
| easy              | hawdd         | 14          |
| voice             | llais         | 14          |
| frequent          | aml           | 14          |
| to give           | rhoi          | 13          |
| member            | aelod         | 13          |
| to read           | darllen       | 13          |
| period            | cyfnod        | 13          |
| special           | arbennig      | 13          |
| movement          | mudiad        | 13          |
| attention         | sylw          | 13          |
| course            | cwrs          | 13          |
| real              | gwir          | 13          |

| <b>Ciw S&gt;C</b> | <b>TARGED</b> | <b>sgôr</b> |
|-------------------|---------------|-------------|
| aid               | cymorth       | 13          |
| community         | cymuned       | 13          |
| financial         | ariannol      | 13          |
| office            | swyddfa       | 13          |
| early             | cynnar        | 13          |
| to do             | gwneud        | 12          |
| to know           | gwybod        | 12          |
| service           | gwasanaeth    | 12          |
| opportunity       | cyfle         | 12          |
| to leave          | gadael        | 12          |
| to change         | newid         | 12          |
| to play           | chwarae       | 12          |
| to pull           | tynnu         | 12          |
| society           | cymdeithas    | 12          |
| to cease          | peidio        | 12          |
| to discuss        | trafod        | 12          |
| to continue       | parhau        | 12          |
| list              | rhestr        | 12          |
| opinion           | barn          | 12          |
| to lead           | arwain        | 12          |
| to join           | ymuno         | 12          |
| address           | cyfeiriad     | 12          |
| interest          | diddordeb     | 12          |
| to celebrate      | dathlu        | 12          |
| interesting       | diddorol      | 12          |
| position          | safle         | 12          |
| to take           | cymryd        | 11          |
| to keep           | cadw          | 11          |
| example           | enghraifft    | 11          |
| to share          | rhannu        | 11          |
| to understand     | deall         | 11          |
| to catch          | dal           | 11          |
| response          | ymateb        | 11          |
| difficult         | anodd         | 11          |
| weather           | tywydd        | 11          |
| standard          | safon         | 11          |
| important         | pwysig        | 10          |
| plan              | cynllun       | 10          |
| to follow         | dilyn         | 10          |
| idea              | syniad        | 10          |
| to ensure         | sicrhau       | 10          |
| recent            | diweddar      | 10          |
| to choose         | dewis         | 10          |
| obvious           | amlwg         | 10          |
| event             | digwyddiad    | 10          |
| to support        | cefnogi       | 10          |
| to call           | galw          | 10          |
| to visit          | ymweld        | 10          |
| music             | cerddoriaeth  | 10          |
| to send           | anfon         | 10          |

| <b>Ciw S&gt;C</b> | <b>TARGED</b> | <b>sgôr</b> |
|-------------------|---------------|-------------|
| to think          | meddwl        | 9           |
| programme         | rhaglen       | 9           |
| assembly          | cynulliad     | 9           |
| to attempt        | ceisio        | 9           |
| to move           | symud         | 9           |
| to ask            | gofyn         | 9           |
| to walk           | cerdded       | 9           |
| century           | canrif        | 9           |
| to recognise      | adnabod       | 9           |
| to appear         | ymddangos     | 9           |
| to listen         | gwrando       | 9           |
| to say            | dweud         | 8           |
| government        | llywodraeth   | 8           |
| content           | cynnwys       | 8           |
| to convene        | cynnal        | 8           |
| national          | cenedlaethol  | 8           |
| to accept         | derbyn        | 8           |
| medium            | cyfrwng       | 8           |
| last              | diwethaf      | 8           |
| social            | cwmdeithasol  | 8           |
| to agree          | cytuno        | 8           |
| connection        | cysylltiad    | 8           |
| to use            | defnyddio     | 7           |
| to happen         | digwydd       | 7           |
| to look           | edrych        | 7           |
| to feel           | teimlo        | 7           |
| to connect        | cysylltu      | 7           |
| to hope           | gobeithio     | 7           |
| committee         | pwyllgor      | 7           |
| use               | defnydd       | 7           |
| to write          | ysgrifennu    | 6           |
| to seek           | chwilio       | 6           |
| to develop        | datblygu      | 6           |
| to organise       | trefnu        | 6           |
| vision            | golwg         | 6           |
| to publish        | cyhoeddi      | 5           |
| report            | adroddiad     | 5           |
| to establish      | sefydlu       | 5           |
| to translate      | cyfieithu     | 5           |
| beginning         | dechrau       | 4           |
| knowledge         | gwybodaeth    | 4           |
| to arrive         | cyrraedd      | 4           |
| to present        | cyflwyno      | 4           |
| to decide         | penderfynu    | 4           |
| to produce        | cynhyrchu     | 4           |
| to offer          | cynnig        | 3           |
| to consider       | ystyried      | 3           |
| to mean           | golygu        | 3           |
| general           | cyffredinol   | 3           |
| to hear           | clywed        | 0           |

# ATODIAD 11

Geiriau targed yn nhrefn eu “dysgadwyedd” derbyngar (Cymraeg > Saesneg)  
gyda chyfanswm sgorau 23 o gyfranogwyr (mwyaf posibl = 46 fesul gair)

| Ciw C>S   | TARGED     | sgôr | Ciw C>S  | TARGED          | sgôr |
|-----------|------------|------|----------|-----------------|------|
| Cymraeg   | Welsh      | 46   | enw      | enw             | 32   |
| Cymru     | Wales      | 44   | hen      | old             | 32   |
| ysgol     | school     | 44   | tro      | turn            | 32   |
| data      | data       | 44   | teulu    | family          | 32   |
| problem   | problem    | 44   | byw      | to live         | 32   |
| Nadolig   | Christmas  | 44   | môr      | sea             | 32   |
| da        | good       | 42   | cwrs     | course          | 32   |
| plant     | children   | 42   | tîm      | team            | 32   |
| car       | car        | 42   | plaid    | political party | 31   |
| helpu     | to help    | 42   | drws     | door            | 31   |
| prifysgol | university | 42   | bod      | to be           | 30   |
| siop      | shop       | 42   | gwaith   | work            | 30   |
| blog      | blog       | 42   | amser    | time            | 30   |
| tŷ        | house      | 40   | mis      | month           | 30   |
| cig       | meat       | 40   | creu     | to create       | 30   |
| stori     | story      | 40   | cwestiwn | question        | 30   |
| polisi    | policy     | 40   | trio     | to try          | 29   |
| busnes    | business   | 40   | munud    | minute          | 29   |
| diolch    | thanks     | 40   | dod      | to come         | 28   |
| Saesneg   | English    | 40   | blwyddyn | year            | 28   |
| grŵp      | group      | 40   | byd      | world           | 28   |
| clwb      | club       | 40   | llun     | picture         | 28   |
| mam       | mother     | 39   | dyn      | man             | 28   |
| newydd    | new        | 38   | siŵr     | sure            | 28   |
| dydd      | day        | 38   | bwyd     | food            | 28   |
| ffrind    | friend     | 38   | eglwys   | church          | 28   |
| nos       | night      | 38   | cartref  | home            | 28   |
| prosiect  | project    | 38   | sir      | county          | 28   |
| bore      | morning    | 38   | gyrru    | to drive        | 28   |
| awr       | hour       | 38   | oen      | lamb            | 28   |
| Sul       | Sunday     | 38   | torri    | to break        | 28   |
| papur     | paper      | 38   | tir      | land            | 28   |
| person    | person     | 38   | pwynt    | point           | 28   |
| capel     | chapel     | 38   | gweithio | to work         | 27   |
| canu      | to sing    | 37   | dysgu    | to learn        | 27   |
| pobl      | people     | 36   | hanes    | history         | 27   |
| bach      | small      | 36   | mynd     | to go           | 26   |
| pen       | head       | 36   | iaith    | language        | 26   |
| newyddion | news       | 36   | llyfr    | book            | 26   |
| tad       | father     | 36   | darllen  | to read         | 26   |
| oed       | age        | 36   | wythnos  | week            | 26   |
| hanner    | half       | 36   | bywyd    | life            | 26   |
| dŵr       | water      | 36   | iawn     | OK              | 26   |
| mawr      | big        | 35   | maes     | field           | 26   |
| merch     | girl       | 35   | rhannu   | to share        | 26   |
| canolfan  | centre     | 35   | hir      | long            | 26   |
| math      | type       | 34   | gogledd  | north           | 26   |
| mater     | matter     | 34   | canol    | middle          | 26   |
| proses    | process    | 34   | cymuned  | community       | 26   |
| hoffi     | to like    | 33   | dosbarth | class           | 26   |



| <b>Ciw C&gt;S</b> | <b>TARGED</b> | <b>sgôr</b> | <b>Ciw C&gt;S</b> | <b>TARGED</b> | <b>sgôr</b> |
|-------------------|---------------|-------------|-------------------|---------------|-------------|
| talw              | to pay        | 26          | rhoi              | to give       | 20          |
| rheswm            | reason        | 26          | meddwl            | to think      | 20          |
| ffaith            | fact          | 26          | gwasanaeth        | service       | 20          |
| drwg              | bad           | 26          | lleol             | local         | 20          |
| athro             | teacher       | 26          | tebyg             | similar       | 20          |
| codi              | to get up     | 25          | iechyd            | health        | 20          |
| chwarae           | to play       | 25          | pell              | far           | 20          |
| nodi              | to note       | 25          | de                | right         | 20          |
| cael              | to have       | 24          | gofal             | care          | 20          |
| peth              | thing         | 24          | rhestr            | list          | 20          |
| nifer             | number        | 24          | cerdded           | to walk       | 20          |
| arian             | money         | 24          | dyfodol           | future        | 20          |
| prif              | main          | 24          | prynu             | to buy        | 20          |
| dewis             | to choose     | 24          | rhyw              | sex           | 20          |
| cyfres            | series        | 24          | ymuno             | to join       | 20          |
| uchel             | high          | 24          | gosod             | to set        | 20          |
| cân               | song          | 24          | hawdd             | easy          | 20          |
| ateb              | answer        | 24          | swyddog           | officer       | 20          |
| swydd             | job           | 24          | llais             | voice         | 20          |
| llaw              | hand          | 24          | gwobr             | prize         | 20          |
| barn              | opinion       | 24          | erthygl           | article       | 20          |
| noson             | evening       | 24          | anfon             | to send       | 20          |
| rhyfel            | war           | 24          | ariannol          | financial     | 20          |
| tipyn             | bit           | 24          | swyddfa           | office        | 20          |
| gwyn              | white         | 24          | sgwrs             | chat          | 20          |
| cefn              | back          | 24          | cynnar            | early         | 20          |
| neges             | message       | 24          | corff             | body          | 20          |
| côr               | choir         | 24          | llafur            | labour        | 20          |
| darn              | piece         | 24          | peidio            | to cease      | 19          |
| myfyriwr          | student       | 24          | gallu             | to be able to | 18          |
| troi              | to turn       | 23          | gweld             | to see        | 18          |
| ardal             | area          | 23          | gair              | word          | 18          |
| achos             | cause         | 23          | cofio             | to remember   | 18          |
| rhan              | part          | 22          | cyfnod            | period        | 18          |
| siarad            | to speak      | 22          | dangos            | to show       | 18          |
| lle               | place         | 22          | pwysig            | important     | 18          |
| gwlad             | country       | 22          | taith             | journey       | 18          |
| gwefan            | website       | 22          | symud             | to move       | 18          |
| cadw              | to keep       | 22          | gofyn             | to ask        | 18          |
| ifanc             | young         | 22          | addysg            | education     | 18          |
| cwmni             | company       | 22          | enghraifft        | example       | 18          |
| llawn             | full          | 22          | profiad           | experience    | 18          |
| ysgrifennu        | to write      | 22          | ymchwil           | research      | 18          |
| diwedd            | end           | 22          | ochr              | side          | 18          |
| mudiad            | movement      | 22          | olaf              | final         | 18          |
| aros              | to wait       | 22          | tywydd            | weather       | 18          |
| sôn               | to mention    | 22          | canrif            | century       | 18          |
| gweinidog         | minister      | 22          | gŵyl              | festival      | 18          |
| meithrin          | nursery       | 22          | diddorol          | interesting   | 18          |
| rhiant            | parent        | 22          | penodol           | specific      | 18          |

| <b>Ciw C&gt;S</b> | <b>TARGED</b> | <b>sgôr</b> | <b>Ciw C&gt;S</b> | <b>TARGED</b> | <b>sgôr</b> |
|-------------------|---------------|-------------|-------------------|---------------|-------------|
| ffordd            | way           | 16          | anodd             | difficult     | 13          |
| eisiau            | want          | 16          | dweud             | to say        | 12          |
| aelod             | member        | 16          | gwybod            | to know       | 12          |
| newid             | to change     | 16          | gwybodaeth        | knowledge     | 12          |
| arbennig          | special       | 16          | cymryd            | to take       | 12          |
| credu             | to believe    | 16          | cynllun           | plan          | 12          |
| syniad            | idea          | 16          | cynulliad         | assembly      | 12          |
| tynnu             | to pull       | 16          | cyngor            | council       | 12          |
| diweddar          | recent        | 16          | cyhoeddi          | to publish    | 12          |
| amlwg             | obvious       | 16          | chwilio           | to seek       | 12          |
| deall             | to understand | 16          | cyfrwng           | medium        | 12          |
| digwyddiad        | event         | 16          | cymdeithas        | society       | 12          |
| mwynhau           | to enjoy      | 16          | cefnogi           | to support    | 12          |
| gwyach            | excellent     | 16          | gwir              | real          | 12          |
| bwrdd             | table         | 16          | parhau            | to continue   | 12          |
| agos              | near          | 16          | arwain            | to lead       | 12          |
| ymweld            | to visit      | 16          | gobeithio         | to hope       | 12          |
| cerddoriaeth      | music         | 16          | pwyllgor          | committee     | 12          |
| gwerth            | value         | 16          | safon             | standard      | 12          |
| adran             | department    | 16          | ymddangos         | to appear     | 12          |
| gwrando           | to listen     | 16          | llywodraeth       | government    | 10          |
| safle             | position      | 16          | dechrau           | beginning     | 10          |
| rhaid             | necessity     | 15          | digwydd           | to happen     | 10          |
| cyfarfod          | meeting       | 15          | edrych            | to look       | 10          |
| dathlu            | to celebrate  | 15          | derbyn            | to accept     | 10          |
| gwneud            | to do         | 14          | cysylltu          | to connect    | 10          |
| defnyddio         | to use        | 14          | datblygu          | to develop    | 10          |
| angen             | need          | 14          | cytuno            | to agree      | 10          |
| rhaglen           | programme     | 14          | clywed            | to hear       | 8           |
| cyfle             | opportunity   | 14          | cyrraedd          | to arrive     | 8           |
| gwahanol          | different     | 14          | ceisio            | to attempt    | 8           |
| dilyn             | to follow     | 14          | cynnig            | to offer      | 8           |
| cenedlaethol      | national      | 14          | adroddiad         | report        | 8           |
| teimlo            | to feel       | 14          | diwethaf          | last          | 8           |
| sicrhau           | to ensure     | 14          | golwg             | vision        | 8           |
| un                | same          | 14          | cysylltiad        | connection    | 8           |
| sylw              | attention     | 14          | golygu            | to mean       | 7           |
| cofnod            | record        | 14          | cynnwys           | content       | 6           |
| dal               | to catch      | 14          | ystyried          | to consider   | 6           |
| trafod            | to discuss    | 14          | cymorth           | aid           | 6           |
| oes               | era           | 14          | cyffredinol       | general       | 6           |
| galw              | to call       | 14          | trefnu            | to organise   | 6           |
| cymdeithasol      | social        | 14          | penderfynu        | to decide     | 6           |
| cyfeiriad         | address       | 14          | sefydlu           | to establish  | 6           |
| diddordeb         | interest      | 14          | adnabod           | to recognise  | 6           |
| cerdd             | poem          | 14          | cynhyrchu         | to produce    | 6           |
| aml               | frequent      | 14          | cyfieithu         | to translate  | 6           |
| gadael            | to leave      | 13          | defnydd           | use           | 6           |
| colli             | to lose       | 13          | cynnal            | to convene    | 4           |
| ymateb            | response      | 13          | cyflwyno          | to present    | 4           |

## ATODIAD 12

Geiriau targed yn nhrefn eu sgorau “dargadw” cynhyrchiol (Saesneg > Cymraeg)  
gyda chyfanswm sgorau 22 o gyfranogwyr (mwyaf posibl = 44 fesul gair)

| Ciw S>C    | TARGED    | sgôr | Ciw S>C         | TARGED    | sgôr |
|------------|-----------|------|-----------------|-----------|------|
| Wales      | Cymru     | 43   | person          | person    | 22   |
| mother     | mam       | 38   | to be           | bod       | 21   |
| data       | data      | 38   | work            | gwaith    | 21   |
| Welsh      | Cymraeg   | 37   | name            | enw       | 21   |
| night      | nos       | 36   | OK              | iawn      | 21   |
| club       | clwb      | 36   | white           | gwyn      | 21   |
| university | prifysgol | 35   | land            | tir       | 21   |
| school     | ysgol     | 34   | news            | newyddion | 20   |
| thanks     | diolch    | 34   | type            | math      | 20   |
| group      | grŵp      | 34   | sure            | siŵr      | 20   |
| problem    | problem   | 34   | to turn         | troi      | 20   |
| morning    | bore      | 34   | field           | maes      | 20   |
| Christmas  | Nadolig   | 34   | half            | hanner    | 20   |
| children   | plant     | 32   | to drive        | gyrru     | 20   |
| meat       | cig       | 32   | political party | plaid     | 20   |
| shop       | siop      | 31   | minute          | munud     | 20   |
| big        | mawr      | 30   | thing           | peth      | 19   |
| good       | da        | 30   | month           | mis       | 19   |
| day        | dydd      | 30   | to learn        | dysgu     | 19   |
| small      | bach      | 30   | week            | wythnos   | 19   |
| story      | stori     | 30   | to like         | hoffi     | 19   |
| car        | car       | 30   | class           | dosbarth  | 19   |
| head       | pen       | 29   | centre          | canolfan  | 19   |
| father     | tad       | 29   | door            | drws      | 19   |
| team       | tîm       | 29   | song            | cân       | 18   |
| project    | prosiect  | 28   | right           | de        | 18   |
| money      | arian     | 27   | matter          | mater     | 18   |
| English    | Saesneg   | 27   | choir           | côr       | 18   |
| blog       | blog      | 27   | language        | iaith     | 17   |
| people     | pobl      | 26   | world           | byd       | 17   |
| old        | hen       | 26   | council         | cyngor    | 17   |
| history    | hanes     | 26   | end             | diwedd    | 17   |
| friend     | ffrind    | 26   | business        | busnes    | 17   |
| hour       | awr       | 26   | church          | eglwys    | 17   |
| water      | dŵr       | 26   | long            | hir       | 17   |
| new        | newydd    | 25   | war             | rhyfel    | 17   |
| turn       | tro       | 25   | fact            | ffaith    | 17   |
| to help    | helpu     | 25   | bad             | drwg      | 17   |
| age        | oed       | 25   | part            | rhan      | 16   |
| lamb       | oen       | 25   | number          | nifer     | 16   |
| Sunday     | Sul       | 25   | company         | cwmni     | 16   |
| house      | tŷ        | 24   | main            | prif      | 16   |
| girl       | merch     | 24   | journey         | taith     | 16   |
| policy     | polisi    | 24   | to live         | byw       | 16   |
| course     | cwrs      | 24   | question        | cwestiwn  | 16   |
| chapel     | capel     | 24   | county          | sir       | 16   |
| sea        | môr       | 23   | to note         | nodi      | 16   |
| paper      | papur     | 23   | to try          | trio      | 16   |
| man        | dyn       | 22   | sex             | rhyw      | 16   |
| middle     | canol     | 22   | to sing         | canu      | 16   |

| <b>Ciw S&gt;C</b> | <b>TARGED</b> | <b>sgôr</b> |
|-------------------|---------------|-------------|
| reason            | rheswm        | 16          |
| labour            | llafur        | 16          |
| to go             | mynd          | 15          |
| to work           | gweithio      | 15          |
| service           | gwasanaeth    | 15          |
| to create         | creu          | 15          |
| young             | ifanc         | 15          |
| home              | cartref       | 15          |
| far               | pell          | 15          |
| back              | cefn          | 15          |
| process           | proses        | 15          |
| body              | corff         | 15          |
| member            | aelod         | 14          |
| place             | lle           | 14          |
| family            | teulu         | 14          |
| series            | cyfres        | 14          |
| high              | uchel         | 14          |
| health            | iechyd        | 14          |
| answer            | ateb          | 14          |
| hand              | llaw          | 14          |
| evening           | noson         | 14          |
| near              | agos          | 14          |
| to have           | cael          | 13          |
| book              | llyfr         | 13          |
| food              | bwyd          | 13          |
| education         | addysg        | 13          |
| job               | swydd         | 13          |
| message           | neges         | 13          |
| prize             | gwobr         | 13          |
| poem              | cerdd         | 13          |
| to come           | dod           | 12          |
| way               | ffordd        | 12          |
| word              | gair          | 12          |
| to get up         | codi          | 12          |
| local             | lleol         | 12          |
| to mention        | sôn           | 12          |
| lose              | colli         | 12          |
| community         | cymuned       | 12          |
| era               | oes           | 12          |
| opinion           | barn          | 12          |
| final             | olaf          | 12          |
| cause             | achos         | 12          |
| easy              | hawdd         | 12          |
| department        | adran         | 12          |
| chat              | sgwrs         | 12          |
| specific          | penodol       | 12          |
| point             | pwynt         | 12          |
| piece             | darn          | 12          |
| student           | myfyriwr      | 12          |
| year              | blwyddyn      | 11          |

| <b>Ciw S&gt;C</b> | <b>TARGED</b> | <b>sgôr</b> |
|-------------------|---------------|-------------|
| time              | amser         | 11          |
| to speak          | siarad        | 11          |
| picture           | llun          | 11          |
| life              | bywyd         | 11          |
| website           | gwefan        | 11          |
| to show           | dangos        | 11          |
| to write          | ysgrifennu    | 11          |
| same              | un            | 11          |
| experience        | profiad       | 11          |
| care              | gofal         | 11          |
| to buy            | prynu         | 11          |
| bit               | tipyn         | 11          |
| nursery           | meithrin      | 11          |
| parent            | rhiant        | 11          |
| article           | erthygl       | 11          |
| financial         | ariannol      | 11          |
| to see            | gweld         | 10          |
| to give           | rhoi          | 10          |
| necessity         | rhaid         | 10          |
| need              | angen         | 10          |
| to read           | darllen       | 10          |
| to leave          | gadael        | 10          |
| full              | llawn         | 10          |
| special           | arbennig      | 10          |
| to believe        | credu         | 10          |
| area              | ardal         | 10          |
| obvious           | amlwg         | 10          |
| example           | enghraifft    | 10          |
| to share          | rhannu        | 10          |
| record            | cefnod        | 10          |
| to support        | cefnogi       | 10          |
| real              | gwir          | 10          |
| to cease          | peidio        | 10          |
| difficult         | anodd         | 10          |
| to enjoy          | mwynhau       | 10          |
| excellent         | gwyach        | 10          |
| side              | ochr          | 10          |
| to break          | torri         | 10          |
| social            | cwmdeithasol  | 10          |
| value             | gwerth        | 10          |
| office            | swyddfa       | 10          |
| teacher           | athro         | 10          |
| to do             | gwneud        | 9           |
| to be able to     | gallu         | 9           |
| to say            | dweud         | 9           |
| country           | gwlad         | 9           |
| period            | cyfnod        | 9           |
| national          | cenedlaethol  | 9           |
| to play           | chwarae       | 9           |
| to pull           | tynnu         | 9           |

| <b>Ciw S&gt;C</b> | <b>TARGED</b> | <b>sgôr</b> |
|-------------------|---------------|-------------|
| attention         | sylw          | 9           |
| table             | bwrdd         | 9           |
| century           | canrif        | 9           |
| to join           | ymuno         | 9           |
| music             | cerddoriaeth  | 9           |
| voice             | llais         | 9           |
| festival          | gŵyl          | 9           |
| to send           | anfon         | 9           |
| frequent          | aml           | 9           |
| want              | eisiau        | 8           |
| opportunity       | cyfle         | 8           |
| different         | gwahanol      | 8           |
| to change         | newid         | 8           |
| to keep           | cadw          | 8           |
| idea              | syniad        | 8           |
| society           | cymdeithas    | 8           |
| to choose         | dewis         | 8           |
| to wait           | aros          | 8           |
| to catch          | dal           | 8           |
| aid               | cymorth       | 8           |
| list              | rhestr        | 8           |
| weather           | tywydd        | 8           |
| to set            | gosod         | 8           |
| committee         | pwyllgor      | 8           |
| standard          | safon         | 8           |
| to celebrate      | dathlu        | 8           |
| use               | defnydd       | 8           |
| interesting       | diddorol      | 8           |
| to listen         | gwrando       | 8           |
| knowledge         | gwybodaeth    | 7           |
| to remember       | cofio         | 7           |
| assembly          | cynulliad     | 7           |
| to follow         | dilyn         | 7           |
| to connect        | cysylltu      | 7           |
| north             | gogledd       | 7           |
| to discuss        | trafod        | 7           |
| to pay            | talw          | 7           |
| to call           | galw          | 7           |
| officer           | swyddog       | 7           |
| to appear         | ymddangos     | 7           |
| to know           | gwybod        | 6           |
| to think          | meddwl        | 6           |
| programme         | rhaglen       | 6           |
| government        | llywodraeth   | 6           |
| important         | pwysig        | 6           |
| to accept         | derbyn        | 6           |
| to feel           | teimlo        | 6           |
| to attempt        | ceisio        | 6           |
| movement          | mudiad        | 6           |
| to ensure         | sicrhau       | 6           |

| <b>Ciw S&gt;C</b> | <b>TARGED</b> | <b>sgôr</b> |
|-------------------|---------------|-------------|
| to move           | symud         | 6           |
| to understand     | deall         | 6           |
| similar           | tebyg         | 6           |
| event             | digwyddiad    | 6           |
| research          | ymchwil       | 6           |
| response          | ymateb        | 6           |
| to walk           | cerdded       | 6           |
| to lead           | arwain        | 6           |
| minister          | gweinidog     | 6           |
| to hope           | gobeithio     | 6           |
| to visit          | ymweld        | 6           |
| interest          | diddordeb     | 6           |
| vision            | golwg         | 6           |
| to agree          | cytuno        | 6           |
| beginning         | dechrau       | 5           |
| to arrive         | cyrraedd      | 5           |
| to ask            | gofyn         | 5           |
| meeting           | cyfarfod      | 5           |
| to continue       | parhau        | 5           |
| future            | dyfodol       | 5           |
| to produce        | cynhyrchu     | 5           |
| early             | cynnar        | 5           |
| to use            | defnyddio     | 4           |
| to happen         | digwydd       | 4           |
| to hear           | clywed        | 4           |
| content           | cynnwys       | 4           |
| plan              | cynllun       | 4           |
| to seek           | chwilio       | 4           |
| to present        | cyflwyno      | 4           |
| medium            | cyfrwng       | 4           |
| general           | cyffredinol   | 4           |
| last              | diwethaf      | 4           |
| address           | cyfeiriad     | 4           |
| to recognise      | adnabod       | 4           |
| connection        | cysylltiad    | 4           |
| position          | safle         | 4           |
| to offer          | cynnig        | 3           |
| to develop        | datblygu      | 3           |
| to mean           | golygu        | 3           |
| report            | adroddiad     | 3           |
| to organise       | trefnu        | 3           |
| to translate      | cyfieithu     | 3           |
| to take           | cymryd        | 2           |
| to look           | edrych        | 2           |
| to publish        | cyhoeddi      | 2           |
| recent            | diweddar      | 2           |
| to decide         | penderfynu    | 2           |
| to establish      | sefydlu       | 2           |
| to convene        | cynnal        | 1           |
| to consider       | ystyried      | 0           |

### ATODIAD 13

Geiriau targed yn nhrefn eu sgorau “dargadw” derbyngar (Cymraeg > Saesneg)  
gyda chyfanswm sgorau 22 o gyfranogwyr (mwyaf posibl = 44 fesul gair)

| <b>Ciw C&gt;S</b> | <b>TARGED</b> | <b>sgôr</b> | <b>Ciw C&gt;S</b> | <b>TARGED</b>   | <b>sgôr</b> |
|-------------------|---------------|-------------|-------------------|-----------------|-------------|
| Cymru             | Wales         | 44          | cwrs              | course          | 28          |
| Cymraeg           | Welsh         | 42          | oed               | age             | 28          |
| data              | data          | 42          | mawr              | big             | 27          |
| ysgol             | school        | 40          | hanes             | history         | 26          |
| busnes            | business      | 40          | creu              | to create       | 26          |
| prifysgol         | university    | 40          | cwestiwn          | question        | 26          |
| clwb              | club          | 40          | eglwys            | church          | 26          |
| stori             | story         | 38          | canolfan          | centre          | 26          |
| car               | car           | 38          | oen               | lamb            | 26          |
| helpu             | to help       | 38          | ffaith            | fact            | 26          |
| diolch            | thanks        | 38          | pwynt             | point           | 26          |
| problem           | problem       | 38          | drws              | door            | 25          |
| plant             | children      | 36          | athro             | teacher         | 25          |
| tŷ                | house         | 36          | gwaith            | work            | 24          |
| grŵp              | group         | 36          | blwyddyn          | year            | 24          |
| prosiect          | project       | 36          | mis               | month           | 24          |
| siop              | shop          | 36          | dysgu             | to learn        | 24          |
| papur             | paper         | 36          | tro               | turn            | 24          |
| person            | person        | 36          | math              | type            | 24          |
| Nadolig           | Christmas     | 36          | teulu             | family          | 24          |
| da                | good          | 34          | siŵr              | sure            | 24          |
| newydd            | new           | 34          | cartref           | home            | 24          |
| cig               | meat          | 34          | sir               | county          | 24          |
| mam               | mother        | 34          | gyrru             | to drive        | 24          |
| ffrind            | friend        | 34          | plaid             | political party | 24          |
| nos               | night         | 34          | trio              | to try          | 24          |
| Saesneg           | English       | 34          | drwg              | bad             | 24          |
| bore              | morning       | 34          | canu              | to sing         | 23          |
| mater             | matter        | 34          | bod               | to be           | 22          |
| Sul               | Sunday        | 34          | cael              | to have         | 22          |
| blog              | blog          | 34          | llyfr             | book            | 22          |
| bach              | small         | 33          | llun              | picture         | 22          |
| pobl              | people        | 32          | nifer             | number          | 22          |
| dydd              | day           | 32          | iawn              | OK              | 22          |
| polisi            | policy        | 32          | troi              | to turn         | 22          |
| tad               | father        | 32          | maes              | field           | 22          |
| hanner            | half          | 32          | canol             | middle          | 22          |
| dŵr               | water         | 32          | cymuned           | community       | 22          |
| proses            | process       | 32          | dosbarth          | class           | 22          |
| merch             | girl          | 31          | munud             | minute          | 22          |
| enw               | name          | 30          | mynd              | to go           | 20          |
| pen               | head          | 30          | peth              | thing           | 20          |
| arian             | money         | 30          | amser             | time            | 20          |
| hoffi             | to like       | 30          | gwasanaeth        | service         | 20          |
| môr               | sea           | 30          | wythnos           | week            | 20          |
| tîm               | team          | 30          | ifanc             | young           | 20          |
| awr               | hour          | 30          | cyfres            | series          | 20          |
| capel             | chapel        | 30          | hir               | long            | 20          |
| hen               | old           | 28          | ateb              | answer          | 20          |
| newyddion         | news          | 28          | de                | right           | 20          |

| <b>Ciw C&gt;S</b> | <b>TARGED</b> | <b>sgôr</b> |
|-------------------|---------------|-------------|
| tir               | land          | 20          |
| rheswm            | reason        | 20          |
| erthygl           | article       | 20          |
| corff             | body          | 20          |
| gweithio          | to work       | 19          |
| prif              | main          | 19          |
| ariannol          | financial     | 19          |
| rhan              | part          | 18          |
| angen             | need          | 18          |
| darllen           | to read       | 18          |
| cwmni             | company       | 18          |
| credu             | to believe    | 18          |
| byw               | to live       | 18          |
| diwedd            | end           | 18          |
| bwyd              | food          | 18          |
| rhannu            | to share      | 18          |
| cân               | song          | 18          |
| barn              | opinion       | 18          |
| olaf              | final         | 18          |
| noson             | eening        | 18          |
| torri             | to break      | 18          |
| rhyw              | sex           | 18          |
| gwyn              | white         | 18          |
| meithrin          | nursery       | 18          |
| agos              | near          | 18          |
| côr               | choir         | 18          |
| ysgrifennu        | to write      | 17          |
| taith             | journey       | 17          |
| nodi              | to note       | 17          |
| dod               | to come       | 16          |
| iaith             | language      | 16          |
| codi              | to get up     | 16          |
| gwefan            | website       | 16          |
| arbennig          | special       | 16          |
| dyn               | man           | 16          |
| lleol             | local         | 16          |
| ardal             | area          | 16          |
| enghraifft        | example       | 16          |
| aros              | to wait       | 16          |
| uchel             | high          | 16          |
| llaw              | hand          | 16          |
| prynu             | to buy        | 16          |
| rhyfel            | war           | 16          |
| tipyn             | bit           | 16          |
| cefn              | back          | 16          |
| neges             | message       | 16          |
| swyddog           | officer       | 16          |
| anfon             | to send       | 16          |
| myfyriwr          | student       | 16          |
| llafur            | labour        | 16          |

| <b>Ciw C&gt;S</b> | <b>TARGED</b> | <b>sgôr</b> |
|-------------------|---------------|-------------|
| gweld             | to see        | 14          |
| byd               | world         | 14          |
| eisiau            | want          | 14          |
| siarad            | to speak      | 14          |
| lle               | place         | 14          |
| gwlad             | country       | 14          |
| cyfnod            | period        | 14          |
| chwarae           | to play       | 14          |
| cyngor            | council       | 14          |
| tynnu             | to pull       | 14          |
| mudiad            | movement      | 14          |
| cymdeithas        | society       | 14          |
| iechyd            | health        | 14          |
| profiad           | experience    | 14          |
| ymchwil           | research      | 14          |
| pell              | far           | 14          |
| mwynhau           | to enjoy      | 14          |
| ochr              | side          | 14          |
| rhestr            | list          | 14          |
| hawdd             | easy          | 14          |
| rhiant            | parent        | 14          |
| darn              | piece         | 14          |
| safle             | position      | 14          |
| gwneud            | to do         | 12          |
| gallu             | to be able to | 12          |
| ffordd            | way           | 12          |
| aelod             | member        | 12          |
| llywodraeth       | government    | 12          |
| bywyd             | life          | 12          |
| newid             | to change     | 12          |
| dangos            | to show       | 12          |
| cenedaethol       | national      | 12          |
| teimlo            | to feel       | 12          |
| addysg            | education     | 12          |
| dal               | to catch      | 12          |
| sôn               | to mention    | 12          |
| cefnogi           | to support    | 12          |
| peidio            | to cease      | 12          |
| gogledd           | north         | 12          |
| oes               | era           | 12          |
| gofal             | care          | 12          |
| swydd             | job           | 12          |
| talw              | to pay        | 12          |
| cerdded           | to walk       | 12          |
| dyfodol           | future        | 12          |
| tywydd            | weather       | 12          |
| cymdeithasol      | social        | 12          |
| ymuno             | to join       | 12          |
| achos             | cause         | 12          |
| llais             | voice         | 12          |

| <b>Ciw C&gt;S</b> | <b>TARGED</b> | <b>sgôr</b> |
|-------------------|---------------|-------------|
| gwobr             | prize         | 12          |
| cerdd             | poem          | 12          |
| sgwrs             | chat          | 12          |
| penodol           | specific      | 12          |
| aml               | frequent      | 12          |
| gwrandio          | to listen     | 12          |
| rhoi              | to give       | 11          |
| colli             | lose          | 11          |
| ymateb            | response      | 11          |
| dweud             | to say        | 10          |
| gwybod            | to know       | 10          |
| rhaid             | necessity     | 10          |
| gair              | word          | 10          |
| gwybodaeth        | knowledge     | 10          |
| cofio             | to remember   | 10          |
| cadw              | to keep       | 10          |
| pwysig            | important     | 10          |
| llawn             | full          | 10          |
| dilyn             | to follow     | 10          |
| derbyn            | to accept     | 10          |
| syniad            | idea          | 10          |
| un                | same          | 10          |
| sylw              | attention     | 10          |
| dewis             | to choose     | 10          |
| amlwg             | obvious       | 10          |
| tebyg             | similar       | 10          |
| cofnod            | record        | 10          |
| gwir              | real          | 10          |
| anodd             | difficult     | 10          |
| gwyb              | excellent     | 10          |
| bwrdd             | table         | 10          |
| gweinidog         | minister      | 10          |
| diddordeb         | interest      | 10          |
| safon             | standard      | 10          |
| dathlu            | to celebrate  | 10          |
| gwerth            | value         | 10          |
| swyddfa           | office        | 10          |
| adran             | department    | 10          |
| cynnar            | early         | 10          |
| cysylltiad        | connection    | 10          |
| gofyn             | to ask        | 9           |
| meddwl            | to think      | 8           |
| gadael            | to leave      | 8           |
| cynulliad         | assembly      | 8           |
| sicrhau           | to ensure     | 8           |
| symud             | to move       | 8           |
| cyfarfod          | meeting       | 8           |
| parhau            | to continue   | 8           |
| diwethaf          | last          | 8           |
| canrif            | century       | 8           |

| <b>Ciw C&gt;S</b> | <b>TARGED</b> | <b>sgôr</b> |
|-------------------|---------------|-------------|
| gosod             | to set        | 8           |
| pwyllgor          | committee     | 8           |
| cerddoriaeth      | music         | 8           |
| gŵyl              | festival      | 8           |
| diddorol          | interesting   | 8           |
| ymddangos         | to appear     | 8           |
| ceisio            | to attempt    | 7           |
| arwain            | to lead       | 7           |
| defnyddio         | to use        | 6           |
| rhaglen           | programme     | 6           |
| gwahanol          | different     | 6           |
| cymryd            | to take       | 6           |
| cyhoeddi          | to publish    | 6           |
| cyrraedd          | to arrive     | 6           |
| chwilio           | to seek       | 6           |
| cysylltu          | to connect    | 6           |
| cynnig            | to offer      | 6           |
| cyfrwng           | medium        | 6           |
| deall             | to understand | 6           |
| digwyddiad        | event         | 6           |
| cymorth           | aid           | 6           |
| trafod            | to discuss    | 6           |
| cyffredinol       | general       | 6           |
| adroddiad         | report        | 6           |
| gobeithio         | to hope       | 6           |
| galw              | to call       | 6           |
| ymweld            | to visit      | 6           |
| cynhyrchu         | to produce    | 6           |
| golwg             | vision        | 6           |
| cyfieithu         | to translate  | 6           |
| cytuno            | to agree      | 6           |
| defnydd           | use           | 6           |
| dechrau           | beginning     | 4           |
| digwydd           | to happen     | 4           |
| clywed            | to hear       | 4           |
| cynnwys           | content       | 4           |
| edrych            | to look       | 4           |
| cynllun           | plan          | 4           |
| cyflwyno          | to present    | 4           |
| diweddar          | recent        | 4           |
| datblygu          | to develop    | 4           |
| golygu            | to mean       | 4           |
| penderfynu        | to decide     | 4           |
| sefydlu           | to establish  | 4           |
| cyfeiriad         | address       | 4           |
| adnabod           | to recognise  | 4           |
| cylfe             | opportunity   | 2           |
| cynnal            | to convene    | 2           |
| ystyried          | to consider   | 2           |
| trefnu            | to organise   | 2           |



## **ATODIAD 14**

### **Data'r holiadur**

Isod, mewn print trwm, ceir y 14 cwestiwn o'r holiadur diwedd prosiect. Mae ymatebion cyfranogwyr yn dilyn pob cwestiwn, heb unrhyw drefn benodol (ond yn yr un drefn ar gyfer pob cwestiwn).

#### **1. On average, how many words did you look at each day?**

- a. 30 words per a day in the former part, and 50-70 words in the latter part
- b. 10 to 20
- c. It varied a lot but I aimed for 20
- d. I averaged around 8 words a day, the most words I did in a day was 14. However, I often would have days where I learnt no new words in order to revise words I had already looked at.
- e. 20
- f. around 15-20
- g. At the start, about 30. Once I'd seen all 300 words for the first time, about 75.
- h. 8-10 at the beginning but then once I had gone through them all I did more words in a day maybe maximum 14
- i. 7
- j. Around 30 words
- k. My learning can be broken down in 3 parts. Initial look over all words and find ways of remembering, then a learning phase, then almost a consolidation phase where I flicked through the ones I thought I was in with a chance of remembering. During the actual learning phase I was probably getting through 15 a day, more during the consolidation phase
- l. 10
- m. 20 days 10 words, 27 days 3 words, 2 days 4 words ,and 1 day 11 words
- n. 6 words
- o. 10 words and sometimes 15
- p. Some I did 30/sometimes 40 depends upon the types of words to be very honest
- q. 10
- r. I started with 10. But that was to much, so I did 8. On the second pass through the words, I did double that.
- s. 12-13
- t. I usually looked at 10 words per day, trying to remember at least 6 to follow the set plan

#### **2. How did you decide which words to look at each day?**

- a. I roughly separated into word classes and started from verbs, nouns and adjectives. After three times learning of each vocabulary, I tried to memorise only words I didn't remember clearly.
- b. I came up with a system on the first day. I split them roughly into verbs, adjectives and nouns then put them in groups of ten cards. I then did the maths of how many words I would need to learn a day to cover all 300 and came up with a 10-day system. Every 10 days looked like this: days 1 and 2 I learnt new sets of 10

words, day 3 I covered those 20 words, days 4 and 5 I learnt another two sets, day 6 I covered those, days 7 and 8 I learnt two more sets, day 9 I covered those last two and then on day 10 I revised all 60 words I had learnt. That way, over 5 sets of this routine, I managed to cover all 300 words.

- c. I tried to introduce some new words each day, and then would shuffle the deck of previous flashcards and draw some to practice
- d. At the beginning of the 50 days I split my flashcards into words that looked 'easy' and 'hard', and started on the easier words, all the way through I would pick words that looked easier for me to learn. I feel in a way this may have set me up for failure from the beginning, however, as I did not feel motivation to attempt the 'hard' words, and therefore never ended up learning those.
- e. I piled them. One pile I knew, one uncertain, one not looked at. Some days I'd do uncertain and some not looked at ones. Other days I would revise the know pile.
- f. at first it was random just to get a look at all of them but then at the end I would go through and sort the ones I could remember vs the ones I could not.
- g. When doing 10 words a day to start off with, it was completely random. Once I'd studied all 300 words at least once, I'd go through them all again. The ones I remembered correctly I would put in the 'correct' pile. The ones I didn't remember correctly, I would put in an 'incorrect' pile. Once I had gone over all 300 words again, I would revisit the 'incorrect' pile and repeat the process, adding the words I could now correctly recite into the 'correct' pile and returning the ones I still couldn't recite correctly into the 'incorrect' pile. And so on, until all words were in the 'correct' pile. I would then repeat the process with the 300 words.
- h. I just picked randomly out of the bag and then once I had looked at the words I put them in a separate pile
- i. I didn't split them up at all, I simply took them as they were. If I thought there were too many complex looking ones (i.e. longer or similar spellings), I would swap them out for a shorter word in the deck.
- j. It depended on the day I would either review cards or attempt to go for a new one.
- k. I initially looked through them all and put to one side the ones I'd learned over the years (English, England, Welsh, Wales, service (from motorways services) Christmas, thank, night, news) and didn't look at them again till the end (green pile). Then I extracted the ones that were either the same or very similar to English (green pile). Then I made a pile of words where I'd successfully given myself a way of remembering them (orange). Finally I had a pile of words I didn't have anything for (red). I went through the red pile a few times and some of the words made it into the orange pile. As I gradually learned words from the orange pile, they made it into the green pile. A few times I went back to the red pile, but it was really just so that I could say I'd tried..
- l. Randomly stacked cards, picked from top each day.
- m. I separated all letters (a,b,c) individual like alphabetic order, and I took each letter in one day, except words start "C" because lots of words starting the C letters, I used words starting C each day almost 3 words, for example first day; cynulliad, cyfrwng, cymuned, problem, cael, dweud, gwyl, pwyllgor, sgwrs, trefnu
- n. Picked them randomly

- o. Randomly - I would look at 5 to 6 new words maximum and then review other words.
- p. Like I decided one to cover verbs then nouns and so on..
- q. I simply picked 10 from the pile
- r. I divided them into new words and words I'd seen. Then I randomly picked from words that were new.
- s. I did not follow a specific criteria in choosing which words to learn EACH day. However, I must admit that at the beginning of Welsh vocabulary learning, I did prioritize nouns and learned them first over verbs.
- t. I took some words that I found difficult from the day before and I added as many of the ones that were on the top of the pile to make 10 all together.

**3. How did you use the flashcards? e.g. Did you cover / fold the card so that a word was hidden? Did you write on the flashcards? Did you divide them into piles (how)? Did you use them in some other way?**

- a. I divided them into verbs, nouns and adjectives and covered English meaning.
- b. I folded them in half (I hope that was ok) because having both words one side of the flashcard was not working for me. When I tried to cover one side with my hand I just ended up seeing the answer so I had to fold them all. I found the table very useful for seeing when I last covered each set.
- c. I folded them in half and divided into cards I had already looked at and cards that I hadn't seen yet
- d. I divided them into the aforementioned 'hard' and 'easy' pile. When looking at the cards I would cover the English and translate the Welsh word to English. I didn't write on my cards, just kept the associations I made to remember them in my head.
- e. I wrote some things on the cards to remember them. I covered the Welsh side, however I did try to do either way near the end.
- f. I wrote how I thought they were pronounced on some of them. I would cover the English part .
- g. I held them in my hand, covering the word (English or Welsh) that I was memorising with my hand. I divided them into several piles to keep track of which words I had gotten correct and which ones I needed to revisit the following day.
- h. I covered the English and tried to remember the Welsh. I wrote in the cards using the keyword technique on the ones that worked. Once I had gone through all the cards I divided them into piles that I knew and didn't and then repeated the process with the words I didn't know.
- i. I covered one half of the card by folding it in half. I would read the words a few times, see if I could recall the English. Once I'd done this, I would swap and try to recall the Welsh. I would keep going until I thought I could remember all of the words. After the first five days, I realised I should have mixed the cards after a while so as not to rely on the order for memorisation. So after that, I made sure to either mix them at the end and do a few more rounds of recall, or I would mix the piles of cards I'd already studied and add them to my new lists.
- j. I would hide the English word, and write above the phonetic version of the Welsh words.

- k. I went through them, wrote words or drew pics that would help me remember the word then folded it in half when I had learned it.
  - l. Cover and learn, only ticked on cards and nothing else.
  - m. I only write Turkish meaning behind flashcards and I used my recall technique it means i looked first ten words and I looked same words after 2 day, 2 day to after 3 day, 3 day to after 5 day and 5 day to after 7 day . every vocabulary comes front of me 5 times. for example my first word cynulliad , I checked same words day 3-6-11-18. I hope, I can explain it.
  - n. I divided them into 6 piles
  - o. I did not fold the cards. Actually, I used them exactly how they were given to me, but I put some notes on them especially for the words that share a similar part. I would write all related words on the same card so whenever I am reviewing one word, I am reviewing all other words with a similar root. I also grouped some words in terms of categories while revising things like office & officer in addition to words like hand, head & back.
  - p. I learned from flash card and gave it to my husband and he asked me the meanings.
  - q. I looked at the flashcard whole, thought of a sentence that could connect the welsh word and english translation, wrote it on the back of the card and then folded it up.
  - r. My methodology I developed over time. I would look at each card a few times, while saying both English and Welsh out loud. Then I'd cover the English, trying to pronounce the Welsh words. After a few attempts (at a point where I usually got all the words) I would cover the English and try to remember them while saying the Welsh words. A method I developed late in the learning period was to divide into piles in terms of ease in learning the words. This allowed me to look at the words I found more difficult and ignore the ones which were easy, using my time more effectively. Sadly I only thought of this in the last few days, so I didn't get to use this method to its full potential.
  - s. I mostly used the flashcards by covering them up, you know, to keep the words hidden and test myself. I didn't really write on the cards, but I had this diary where I'd jot down the Welsh words I learned each day. So, after cramming in about 12-13 words a day, I'd try to recall them by writing them out without peeking at the flashcards. Then, I'd double-check my memory using the flashcards to see if I got them right. Oh, and I wasn't too bothered about the spellings, to be honest. I just tried to write down how the words, I thought, really sounded or were pronounced."
  - t. I fold them in half so I cannot see the translation without turning the card. I had three piles. Left pile was the ones I have not yet learned, middle pile were the ones that I still need to work on and the pile on the right was a pile of the words that I was sure I knew. The goal was to get all of the flashcards from the left pile to the right pile.
4. **Did you use the keyword technique at all (where you think of a word in English (or your L1) that resembles the Welsh target word in some way, and possibly create a visual image)? If yes, did you draw your keyword images at all? Did you use the keyword technique in some other way?**

- a. I tried to memorise them by sound because sometimes pronunciation between English and Welsh is a bit similar though these spellings are different.
- b. I only really did this if the English and Welsh sounded very similar, although some Welsh words reminded me of similar French words so I made those connections instead. I didn't use drawings as nothing came to mind.
- c. No
- d. I did find myself making associations to English words to remember the Welsh word. I didn't draw them out, just kept these associations in my head.
- e. I just wrote phrases on them that I could connect to the word.
- f. I did not find it easy to do this so only for a few.
- g. I did use this technique. I didn't draw anything, but I definitely associated several Welsh words with words in English or any other languages I know.
- h. Yes, I either drew on the back of the cards an image or wrote a similar word.
- i. I did this for as many as possible. It was easier with some than others. As I used to be fluent in Danish, am fluent in Spanish and also know French, it was easy for me to draw similarities between many words or come up with "stories" in my head in order to remember them (like an image). For example "rhannu" I thought of "Rhianna always shares." This was the only keyword technique I used. It didn't work for all of them. There were so many of the more complex words that sounded or were spelled in such similar ways that it became really difficult. I have ADHD and dyslexia so I started to really struggle to differentiate and cognitively, I think it became a little too much and so I didn't remember them easily. In truth, my motivation for those words in particular dropped and I didn't put as much effort into those words towards the end.
- j. For some words such as Sul I would use visual images to help.
- k. Yes. Where there was a vague resemblance to a word in English or Italian, I used that as my prompt (drew a cigarette for meat, italian bird flies high (uccello/uchel)...) some much more abstract and tenuous than others.
- l. No, tried to remember directly.
- m. I used my own key word technique . I write Turkish means behind flash card, it was very helpful for me because some words looks like Turkish words, I remembered more easy for example: erthygl(article) my nephew name is ERTUGRUL, is very similar letter and word , or cor (choir) we used in Turkish "KOR"
- n. I drew the keyword images in a journal
- o. I used my native language, Arabic, to draw on some words. I also linked some Welsh words to the English ones that resemble them.
- p. Umm to be very honest my L1 and Learning welsh has nothing in common .I learned it like a child does in the primary stage.
- q. I used the keyword technique and incorporated it into a sentence which was written onto the back of the flashcard, i did not visual an image.
- r. It would depend on the word. Sometimes I would think of a similar English word and create the association there. Sometimes I would just visualise the thing or action involved if I couldn't do that. Sometimes I would find some other connection. For example, Hand is Llaw, which sounds a lot like claw, which is similar to / can be made by a hand. Or something wilder like ffaith is like the English word faith. But it means fact. The Welsh language was revived using

religious texts. So, faith being taken as fact seems like a particular concept to a religious community. ... But maybe I was just indulging a tinfoil hat theory there. It worked, though, I remembered the word.

- s. Yes, I did use a kind of keyword technique, but not in the traditional way. For instance, the Welsh word 'Arian' means 'money.' In my L1 - Malayalam, there is a word 'Ari' (Ah-REE) which means 'rice.' So, to remember 'Arian,' I associated it with needing money to buy rice. It's a memorization trick I've used since my school days, and it really helped me learn a bunch of words in this vocabulary task
- t. I did in some words that seemed familiar, but there were not many

**5. Can you remember which (if any) words you used keyword technique to learn? Please list as many as you can remember.**

- a. cwmni, rhestr, rheswm
- b. The word for value (gwerth) sounds like worth which is related. A slightly sillier one is that the word for money (arian) just made me think of Ariana Grande and she probably has a lot of money.
- c.
- d. For example: 'Gwerth' (Value) - is similar to 'Worth' in English. Beyond English, there was also words such as 'eglwys' (church), which I associated with the French word for church (église).
- e. Tad (dad) - father. Bach (a small batch)
- f. erthygol - article. it helped when the words had the same amount of syllables
- g. gwerth (this reminded me of the English word 'wealth'); mis (looks like the word for month in Spanish ['mes'] and Portuguese ['mês']); gogledd (looks a bit like 'Google', which made me think of 'Google Earth', which made me think of directions); môr (looks like 'mar', the word for sea in Spanish and Portuguese); mam ('mam' can be used in English to refer to one's mother); credu (reminded me of the word 'credence' in English); olaf (I pictured the character from 'Frozen'); chwarae (reminded me of the game 'charades'); sicrhau (looks like the German adjective 'sicher', which means 'sure'); profiad (reminded me of the word 'professional'); rhoi (reminded me of the French word for 'king' [roi]); oed (I thought of the initials for Oxford English Dictionary); addysg (reminded me of the mathematical function 'to add'); pobl (reminded me of 'población', the Spanish word for 'population'); fford (I thought of the footballer Caitlin Foord); corff (reminded me of the French word for body ['corps']); trefnu (reminded me of the German verb 'treffen', which (when reflexive) means to 'meet up'); cân (reminded me of the word for song in Spanish ['canción'] and Portuguese ['canção']); safon (reminded me of the word 'saffron'); gwobr (reminded me of the English word 'globe', which made me think of the Golden Globe Awards); gwefan (I thought of the singer Gwen Stefani)
- h. War, necessity, world, children
- i. Rhannu - Rhianna always shares; canol - the canal runs through the middle;
- j. Sul; Poble; People; Person; Siop
- k. man makes a racket (dyn); I looked it up (north); a week with us (wythnos); no sun (evening); mention my son (sôn); go find the answer (gofyn); think of winning (medwl); a nod is difficult (anod); cart the ref home (cartref); not easy! (hawdd);

de(stra) (de); discorso (sgwrs); specific pain relief (penodol); to give to the french king (rhoi); pelted far away (pell); italian corn (maes); gun (rhyfel); produce a baby can hurt you (cynhyrchu); giocare (chwarae); to understand the card game (deall); piece of wool for darning (darn); keep the french present (cadw); nursery matron (meithrin); drwgs are bad (drwg); visitym the German world (ymweld); thoughts on a barn (barn); I rhan part of the marathon (rhan); share into parts (rhannu); learn to dance at a dysgu (dysgu); high as an italian bird (uchel); wait for the red arrows (aros); near the store with the red sign (agos)

- l. NA
- m. first word Welsh , second word Turkish: erthygl-ERTUGRUL, cor-KOR, cwrs-KURS, canol-KANAL, siop-SINOP, can-CAN, derbyn-DERBI, sul-SAL, clwb-KLUB, colli-KOLI, peth-PED, dathlu-TATLI, ardal-ERDAL, aros-ARAS, mor-MOR, bach-BAK, mis-MIS, blog-BLOK, son-SON, polisi-POLIS, grwp-GRUP, canu-KANO, tad-TAT, dal-DAL, tim-TIM, un-UN
- n.
- o. For example, the easiest words for me to learn were thinks like poble (because there is a housing organisation with a similar name I think), problem, prosiect, papur, grwp, tim, kurs and ffriend.
- p.
- q. Basically all of them.
- r. If I had a list of words next to me, I could probably remember which ones I used it on. But not off the top of my head.
- s. Arian, Pobl, Gyrri, Mater, Nodi, Peth
- t. like sicrhau and versichern in German

**6. Did you use the word family technique at all (on the flashcards, common letter strings in words from the same family were marked in bold)? Did this help your learning? If so, in what way?**

- a. It's helpful to learn them, but it's more complicated to distinguish which words are which meanings at the same time. For example, I was confused whether newydd or newid meant new or to change.
- b. Yes, I found this very helpful and am used to connecting word families because of my French learning. Even if the word had a different ending I could recognise the root, especially sinnce it was in bold, and immediately knew what the word meant.
- c. Yes, I found it helpful to link words
- d. No, I didn't find this helped as I learnt all the words at different times, and therefore couldn't make a clear link between them.
- e. No I did not. There were too many similar. The movement cards really confused me, even though I knew that they were to do with movement - to move, movement, moving, ect...
- f. it did help sometimes just to know whether it was the word or the to "word".
- g. Yes, I did, and it helped quite a lot.
- h. No
- i. Only to an extent. In truth, I thought they were for pronunciation purposes...a friend of mine who is also learning Welsh pointed out the word families. They

only helped me to an extent. In truth, unless I have someone "discussing" (especially a teacher), I don't notice a lot of things straight away.

- j.
- k. yes
- l. Yes, it made remember that it is related to something that I already know.
- m. I use this technique only a few words.
- n. The word family technique helped my learning by helping with the pronunciation of several words
- o. Yes, like I mentioned above, things like office and officer, I grouped them together. There are also two words that I remember, diddordab and diddoral, one of them means interest and the other means interesting. It was helpful to group them together, so even now I can remember the Welsh words but in terms of translation, I keep forgetting which is which.
- p. No I didn't
- q. It did not really help, i was a bit confused is all.
- r. Yes and no. Sometimes I didn't recognise these. Sometimes I did and it was helpful to know the relation between words. It felt like I was understanding the word, rather than just using it. (e.g. Canol, Canolfan and Nos, Noson)
- s. No
- t. I did not use this technique

**7. Can you remember which (if any) words you used word family techniques to learn?**

**Please list as many as you can remember.**

- a. newydd, newid; symud, symudiad; cysylltu, cysylltiad; bywyd, byw
- b. Arian and arianol, cymdaethas and cymdaethasol.
- c. Swydd, swyddfa, swyddog. Dangos, ymddangos. Gwybod, gwybodaeth. Dysgu, addysg. Cerdd, cerddoriaeth
- d.
- e. None.
- f. I cant exactly remember for the ones that started with gwybod
- g. canol, canolfan; swydd, swyddfa; diwedd, diweddar; nos, noson; gwybod, gwybodaeth; defnydd, defnyddio; arian, ariannol; symud, mudiad; gwaith, gweithio; cymdeithas, cymdeithasol; diddorol, diddordeb; ateb, ymateb; tro, troi; llun, cynllun; dangos, ymddangos; digwydd, digwyddiad; cysylltu, cysylltiad; byw, bywyd
- h.
- i.
- j.
- k. Gweithio/Gwaith; Arian, ariannol,; Cân, canu; Nos, noson; Rhan/rhannu
- l. Addysg
- m. cymru-cymraeg , swyddog-swyddfa, byw-bywyd
- n.
- o. I answered this in the previous question.
- p.
- q. none
- r. Like a key method I'd need the list of words to remember. Except the examples above.



- s.
- t. N/A

**8. Tell us more about any other learning techniques you used.**

- a. Link the vocabulary and hand gesture when I learned the vocabulary which expresses any motions, mostly verbs. Link Welsh and English vocabulary with example sentences, e.g., The son mentions.(sôn in Welsh=mention in English)
- b. It was mostly the system I came up with and folding the cards that really helped.
- c.
- d. Just going over the words over and over. Two of my flatmates also participated in this study, so sometimes just bringing up and discussing our own learning techniques and how we individually remembered the words helped.
- e. I just would flash through the well known cards at lightning pace. If I didn't know it would go back in the uncertain pile (I had them rubber banded with green, yellow and red bands).
- f. I would try to use the welsh word in a sentence like amloog "that was so obvious/amloog"
- g. For longer words, I tried splitting them into chunks (often based on syllables). Examples: cyn-hyr-chu; cy-syll-tiad; cerdd-ori-aeth
- h. I sort of used the word association technique but with things in my personal life. For example, 'to sing' in Welsh is 'Canu' and I personally can't sing so I'd think sing - I canNOT. For some words I'd try and emphasise the first letter if it was the same as the Welsh word.
- i. I'm really quite useless when it comes to using a variety of techniques. I actually just followed the same technique mentioned previously (read one side, fold and try to recall). My ADHD means I really do need a set routine of doing something so that was what I did each night.
- j.
- k.
- l. None, tried to remember directly before I failed to complete the task.
- m. I used sign reading technique, for example on the road(M4) some place is fixing and I read sign end-diwedd, or on the school sign- nursery-meithrin, school-ysgol. I read every welsh sign for remember some words.
- n.
- o. Only word family technique in addition to drawing on my first language.
- p. I took it as a challenge that need to do at least 10 words a day
- q. I used words that were similar to each other, like 'centre' and 'middle' to help remember each other
- r. Sometimes I would try and use the words in everyday conversation to replace English. Since I was near a Welsh speaker most days when I was working, this I found quite effective. (e.g. dwr)
- s.
- t. reading the words out loud and fixing the sound with the word also helped. Awr and hour don't look similar until you read them aloud.

**9. What advice would you give someone attempting this challenge (learn 300 Welsh words in 50 days) in the future?**

- a. I usually learn new vocabulary while reading it aloud, but it was difficult to do that this time because I mostly didn't know the pronunciation of each word though I checked the given pronunciation list. It would be easier to learn vocabulary with pronunciation audio.
- b. Pronunciation was the hardest part and I did have to get Google Translate up to say the words to me (which might not be the most reliable source).
- c. It can be helpful to have days where you only look at old flashcards rather than trying to learn any new words.
- d. Don't set yourself up to be afraid to try the harder words. Keep going over the words often and trying to recall. Try going from Welsh-English AND English-Welsh.
- e. To go outside the box to keep interested. I wanted to and still want to learn Welsh, but purely going off the covering technique makes you lose interest faster.
- f. Try to keep on top of it and be excited about what words you might be learning!
- g. Don't write any words down, as you can go through more words in 10 minutes when you just say them out loud. Make sure to switch every so often between English to Welsh and Welsh to English. Also, be very organised if sorting the words into piles. If they get mixed up, it could negatively impact the effectiveness of the technique you are trying to use.
- h. Write and draw on as many of the cards as you can as I definitely found the ones where I did that easier to remember.
- i. Definitely to pre-prepare the cards into set groups. Make sure the "complex" words are evenly dispersed amongst the less complex ones. I would also say to try and involve others around you if you're like me and struggle with self-motivation. My husband helped me to maintain the consistency of the 50 days and my friend, whenever he came over, would quiz me on random words throughout to see how many I could remember. I would also say to set aside the same time, everyday. This will help you to make sure you don't forget!
- j. Try to do it with a group of friends that way you keep each other responsible.
- k.
- l. Keep up with daily new learning but always take a look at the words you learned earlier, constant revision is more important.
- m. Before participating in this research, it is important to emphasize to the potential participants that memorizing words in just 10 minutes is not sufficient, and that they need to review each word at specific intervals. Additionally, if they reside in this country, they should be encouraged to pay close attention to any Welsh signage they encounter, as visual memory can significantly aid in word acquisition.
- n. To keep an open mind
- o. To do this first thing in the morning rather than leaving it to the evening!
- p. Keep it in practice and do it as you are learning something new with interest.
- q. Maybe arrange the 300 words into similar contextual piles to help remember them?
- r. I would say to not try to learn too much at once. You will not learn all the words by the end, it's impossible, so don't give yourself a workload with that goal in mind. Go through each of the words once. Try to review words you have learnt over the last day or two, if possible. (This is something I didn't do, but think it

would be helpful). While you do this reviewing, place them into different piles of difficulty. This will allow you to look at the harder ones more when you are just reviewing and have gone through all of the words once. - However, I can see the difficulty in doing this if travelling a lot. (I had a thought that if this flash card method was transferred to an app it would make it easier for people travelling or who couldn't use physical cards for whatever reason. But that's a tangent.).

Finding unique ways of learning words. Something that makes them stick out in your mind. That can be creating a picture in your mind (like the key technique) or even overpronouncing a word (for example gyrru, while rolling the 'r's excessively like a car engine). Another technique is to use these words in everyday thoughts and conversation. Like, ""I'm going to send this person a neges."" - Using fun ways like this make the brain feel like it's playing and play is how we've learnt a lot of things in life (play isn't just for children). If you can find someone else to practise your Welsh words with, that will make learning them even easier.

- s. My advice for anyone taking on this challenge in the future would be to find a learning technique that works the best for them. Not every method will click for everyone, but if they can find the one that feels right for them, it can make a big difference. Even if they don't manage to learn all 300 words, sticking with a technique that suits them could still help them learn a significant portion of the words.
- t. Stay consistent, even if you have to do 5 minutes a day. Learn the words while you brush your teeth or any other activity that you do every day so you stick to it.

**10. Is there any other information you think might be relevant to our interpretation of your results? Please note that we do not need to know about why your learning might have been disrupted or interrupted; we are interested in factors that may have impacted on your learning approach or process (e.g. learning difficulties such as dyslexia; knowledge of languages similar to Welsh).**

- a.
- b. My knowledge of French and experience of learning languages definitely would've helped but Welsh is pronounced and spelt very differently to any language I've seen so that was the trickiest part.
- c. I have been learning Scottish Gaelic for several years and know a very small amount of Cornish
- d. I often did my Welsh right before going to sleep (often quite late into the night). Some words in this study I didn't necessarily learn from the flashcards, more so from just living in Wales for university (coming from England) and seeing certain words on signs and in emails daily (eg: prifysgol, diwedd, etc) which could have affected how I memorised certain words more than others.
- e. Dyslexia and Epilepsy.
- f.
- g. No
- h.
- i. As I've said, I do suffer with ADHD and dyslexic traits. These mean I naturally have a poor memory and extremely poor motivation, leading me to the three days missed. I have learned to speak foreign languages since I was 6 as I travelled the world with my family, attending school for more than one year at a time in

Mexico, Norway, Spain, Denmark and Canada (in that order), only returning to the UK at the age of 11. I only started learning Welsh two years ago and even then, I only know classroom language from my PGCE. Therefore, words like Gwaith and Dosbarth, Athro etc were easier for me to remember.

- j. I have dyslexia and that may have influenced how I learnt the words.
- k. Nothing like any other language I've ever learned! I only realised we were supposed to be learning Welsh to English as well as English to Welsh until 10 days before the end. I believe I'd have done better in the W to E if I'd spent time learning the other way round
- l. Solo learning disrupts my learning experience.
- m. In my study, there weren't many gaps. However, I struggled because many Welsh words consist of consonants only. In my native language, Turkish, there are no such words; they always consist of both vowels and consonants. There are no words composed entirely of vowels or entirely of consonants. I found it challenging to learn the words because of this. For example, in the word "cyfrwng," there isn't a single vowel, making it difficult for me to establish connections between the letters. Due to many Welsh words being structured this way, learning them wasn't easy.
- n.
- o.
- p.
- q. a lot of the welsh words seemed very similar, and i struggled to memorise or recognise them, i also struggled to commit them to my long term memory.
- r. While in school, I was learning French and German for a few years. While I wasn't absolutely terrible, they were my worst subjects. So I didn't think I was going to be amazing after all this. Brains are wired differently and all that. I've had quite a lot of trouble with consistent good quality sleep. So that may have affected my learning.
- s. Before participating in this Welsh vocabulary learning task, I had previously attempted to learn some Welsh using Duolingo. As a result, I was already familiar with some of the words included in the learning pack. However, I did not know the Welsh equivalents for those words used to filter participants for this task. Also, I haven't used Duolingo since signing up for this task. I am not sure whether this is relevant but I thought I'd keep you informed of this
- t. I really struggle with long words. Anything above three syllables takes a lot of energy to read let alone remember. I also have auditory memory so when I could not figure out how the word is being pronounced it was very difficult for me to remember and then recall that word during the exam.

#### **11. What did you find enjoyable about the task?**

- a. I'm happy that I'm able to understand Welsh a little when I come across it at supermarkets or signs on the roads.
- b. The challenge and the feeling of starting to learn a new language because I love languages and just enjoy learning vocabulary in general.
- c. It was very enjoyable
- d. I find language learning interesting even if I don't reach a high level. It is interesting to learn about different language systems.

- e. Learning Welsh. I had the incentive to learn Welsh beforehand which made this enjoyable, mostly at the beginning.
- f. it was really interesting to learn what the words meant especially because some of them I come across often.
- g. All of it, I really enjoyed studying a language that bears very little resemblance to the languages I know already, as it meant I had to rely on my memory a lot more. It was good being able to test my memory, and the 50-day grid on each word's card was also a good way for me to tell which words I found harder than others. I feel a good variety of words were chosen also.
- h. My partner is Welsh and is also learning to speak it better so it was nice asking him about the pronunciation of certain words and also telling him which words I learnt that he didn't know.
- i. I liked the challenge and seeing how many words I actually already knew.
- j. I enjoyed being able to translate some words when going out.
- k. I found linking some of the words to words in English/Italian fun
- l. A new language is always exciting.
- m. One of the most enjoyable aspects of the assignment is that, living in a Welsh town, when people come to the place where I work, they speak entirely in Welsh among themselves. It was enjoyable for me because I could catch a few things from their conversations.
- n. The idea of learning a challenging language
- o. Learning words in Welsh is interesting since I live in Wales. There are words that I always saw on signs things like ysgol, canolfan and gwasanaith, so it was lovely to learn what these words meant. In Cardiff, I lived in an area called: pen-y-wain, and it was only through the project that I learned that pen means head and therefore the words is also used to refer to areas at the top of a mountain for instance.
- p. To learn the meaning in Welsh.
- q. simply learning Welsh was very enjoyable, I had never encountered the language until now, and it's a very fun language I feel :)
- r. Personally, I enjoyed pronouncing the words. I also enjoyed talking about Welsh words with Welsh speakers, as they were supportive of my learning and mixed in Welsh words in speaking to help (I even found some when I wasn't in Wales!)
- s.
- t. Learning new vocabulary, new language. I find Welsh so interesting and it was an honour to take part in this project.

## **12. What did you find less enjoyable about the task?**

- a. I have some words I couldn't definitely memorise which are long, unfamiliar alphabet combinations and difficult pronunciation. It was challenging to practice these vocabulary.
- b. Trying to pronounce all the words that start with c and sound similar or are really long.
- c. Remembering to do it every day
- d. It became very repetitive and more of a chore in my day.
- e. It became tedious.
- f. finding a time of day to study when my schedule was not the same every day.

- g. There was no part of it I didn't enjoy, to be honest.
- h. Having to stop the learning after 10 minutes. Sometimes it was really frustrating as I feel that with an extra few minutes I could have focussed more on a specific word that I wasn't sure on.
- i. 50 consecutive days was harder than I thought it would be for someone with ADHD.
- j. Nothing in particular
- k.
- l. Learning alone with none to apply the language to in a conversation
- m. I did not find anything dull or unenjoyable about the assignment, but my biggest challenge was that it coincided with exam time. Therefore, I couldn't fully enjoy it as I was constantly stressed due to exams. I believe that this kind of research should not be conducted during exam weeks; it should be done during less stressful times for better efficiency.
- n. The anxiety of not remembering as many words as expected
- o. Nothing in particular
- p. Like to cram the words and the most difficult was the pronunciation
- q. the everyday commitment was tiring at times, especially when i'm very tired about to go to bed and i remember oh gosh i havent done my welsh.
- r. I did get frustrated time to time when I wasn't grasping/remembering the words when using the flashcards. (This happened especially when I was tired)
- s. What I found less enjoyable about the task was the fact that, as a complete novice, I had no clue how to pronounce these words. It was really frustrating. While a leaflet was provided with the learning task, briefly touching upon pronunciation, I didn't find it very helpful. I ended up looking online for the pronunciation of some of the words.
- t. Getting used to the routine and forcing myself to do the 10 minutes a day. Feeling guilty when I couldn't recall all of the words. Also the long exam was probably too long for me... I would've appreciated if there were more exams of shorter length than just the big one of 16 slides.

**13. Do you have any suggestions for how the task might be made more effective (e.g. timing, instructions, etc.)?**

- a. I mainly tried to learn Welsh to English translation, but I should also have practiced English to Welsh. I should have confirmed how was the post-learning tasks like, but I would happy that we were clearly instructed that we should learn both ways, namely Welsh to English and English to Welsh.
- b. Having flashcards with the words on separate sides of the card and more help with pronunciation.
- c.
- d. I believe this task would have been more affective with audio files for each word. If this were to replicate a classroom, the teacher would be saying the word aloud. I found it difficult even with the pronunciation guide to understand how to say words - so I don't think I could speak Welsh words, only read them. I also think it would have been good to learn some grammar, rather than just a vocabulary list: as a result I don't really feel I learnt much, it felt more like a pattern recognition exercise. Furthermore, with the final tests, I feel there may have been an order

- effects issue as the words were in the same order in the welsh-english side and english-welsh side, which meant you could accidentally recognise the pattern from the first to the second and remember more than in actuality.
- e. Having audio to go along with the cards. Being able to put the correct pronunciation to a word would really help. When asking Welsh speakers they said that the pronunciation of words when going by the sheet often wasn't right, so going off of purely reading and uncertain speech made it a lot harder.
  - f. splitting the cue cards into days so there are certain words we learn everyday already laid out rather than it being a free for all.
  - g. Perhaps a little insight into the accent marks (ŷ ŵ ô â î) and what effect they have on pronunciation. This is because I struggled a bit when memorising which words carried an accent mark, and I feel it may have been a bit easier to memorise those words if I had known a little more about the role the accent marks play in the pronunciation of a word.
  - h.
  - i. Everything was very clear in truth. I don't know how you might have changed it in order to not affect your study.
  - j. Have an amount of words that need to be learnt a day, as I was unable to get through all the words.
  - k. I'm not sure 10 minutes was enough for me. 20 would have still been manageable but much more effective. Instructions were very clear.
  - l. Learning groups
  - m. As I mentioned in the previous question, research of this nature should not be conducted during students' exam weeks. Apart from that, in my opinion, 10 minutes a day for 50 days is sufficient to learn 300 words. Especially for not native English students like myself, we typically learn between 5 to 10 words daily when acquiring English. Of course, the rate of word acquisition may vary depending on age. Being 48 years old, I may not achieve the same performance level as younger individuals in their 20s, who can potentially learn more words at a faster pace.
  - n. The learning process might be more effective if the participants are exposed and interact with a community of welsh speakers, as opposed to individual learning alone
  - o.
  - p. Sometime i think 50 days are less , if you have something else to do along with learn words because I think it's a continuous practice.
  - q. i feel like 15 minutes instead of 10 to help remember would be better, and some suggestions other than flashcards to memorise to learn the words, different techniques and stuff like that
  - r. When I first started I was quite with lost with trying to find a good strategy, it was developed over time. But it would have been nice to have some method in place early on. Maybe with loose guidelines such as spend x-y minutes looking at words, then spend a-b minutes covering the English words on the cards and trying to remember them, etc... One thing I thought might have helped would be a short chat with someone a week into the the learning. Maybe to talk about how the learning is going, but also to discuss what might be the best way to learn

going forward (certain techniques, making suggestions to draw on the cards, or even a low-pressure test environment, etc.)

- s.
- t. Maybe making more tests but shorter

**14. Do you have any other comments relating to your experience on the Welsh vocabulary project?**

- a.
- b. No but I really enjoyed it so thank you.
- c.
- d. It was an interesting experience to be involved in a project such as this and experience the participant side of a study.
- e.
- f. it was really fun!
- g. It would be good if the university could do this with other languages, I would happily do this again with another language. I am grateful for the opportunity to have learned some Welsh, and this was a good way to do so as it was only 10 minutes a day, which meant it was a manageable commitment. Having all the information and cards in one clear zip-up folder was also very helpful.
- h.
- i. NO. Only that I really did enjoy it, I'm just sad with myself that I couldn't maintain it as accurately as I'm sure you'd have liked.
- j. No was a nice experience.
- k. I'd be really interested in hearing about your findings
- l. Excellent initiative to generate interest in a minority spoke language.
- m. It was a very interesting experience for me; this was my first task in learning vocabulary in a new language. I gained confidence in myself, and perhaps I am considering participating in future studies. It's not only beneficial for exercising my mind but also presents a great opportunity for learning a new language. PS: And what caught my attention the most was my difficulty in recalling the Welsh meaning of an English word, but I could remember the English meaning of the word much faster when I saw the Welsh one.
- n. Getting the right pronunciation for most of the welsh words was a huge challenge
- o.
- p. It was a nice and good experience and now whenever i go I try to remember and sometimes i feel that yes I know this word.
- q. I really enjoyed this project! I'd like to participate in another, or attend some welsh classes if possible
- r. I'm sorry that my second task was done so late after the timeframe. I forgot that I was going abroad and that an alternative email should have been provided. - Sorry if that makes my data unusable. Thank you for letting me be a part of this study. I really did enjoy learning Welsh words (or at the least attempting to).
- s.
- t. I really enjoyed this project and I do think i will be continuing in learning the Welsh language.



