

Letter	Frequency %
m	4.3
n	4.1
o	4.0
p	4.0
q	3.9
r	3.8
s	3.8
t	3.6
u	3.0
v	3.0
w	2.8
x	2.8
y	2.7
z	2.5
a	2.1
b	2.0
c	2.0
d	1.9
e	1.7
f	1.6
g	1.5
h	1.4
i	1.3
j	1.2
k	1.1
l	1.0
o	0.9
p	0.9
q	0.8
r	0.8
s	0.7
t	0.7
u	0.7
v	0.6
w	0.6
x	0.6
y	0.6
z	0.5
a	0.5
b	0.5
c	0.5
d	0.5
e	0.5
f	0.5
g	0.5
h	0.5
i	0.5
j	0.5
k	0.5
l	0.5
m	0.5
n	0.5
o	0.5
p	0.5
q	0.5
r	0.5
s	0.5
t	0.5
u	0.5
v	0.5
w	0.5
x	0.5
y	0.5
z	0.5

## Appendix 2 - Symbols

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$\Psi$	<b>Phylogeny</b> The (possibly unknown) relationship between entities resulting from an evolutionary tree
$\tau$	<b>Tree topology</b> Information on the relationships of the languages
$\mu$	<b>Substitution rate</b> the rate at which the language changes
$N$	<b>Sampled languages</b> The number of languages in a sample
$\nu$	<b>Expected events</b> The expected number of evolutionary events that occurred between two languages
$t$	<b>Past times</b> Times of branch events
$B$	<b>Possible rooted trees</b>
$A$	<b>Segmental alignment</b> Constructed by combining the word segment information for the languages of interest with information on the homology of the segments
$S$	<b>Segmental information</b> Information on the homology of the segments
$s$	<b>Segment</b> Linguistic segment
$s_i$	<b>ith segment</b>
$H$	<b>Homology map</b> The map describing the alignment of the segments
$Q$	<b>Rate Matrix</b>
$\beta$	<b>Rate matrix scaling factor</b> Scales the rate matrix such that the average rate of segmental substitution is one
$P$	<b>Probability</b> The probability the process ends in certain state
$P$	<b>Marginal Likelihood</b>
$\pi$	<b>Equilibrium distribution</b>
$\lambda$	<b>Rate of segment insertion</b>
$\mu$	<b>Rate of segment deletion</b>

## Appendix 2 - Symbols

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$n$	<b>Word length</b> Number of segments in a word
$r$	<b>Rate parameter</b>
$\theta$	<b>Rate parameters</b> Parameters associated with the rate matrix
$\theta \boxtimes$	<b>Proposal</b> New value proposal
$q$	<b>Proposal probability</b> Probability of new proposal
$u$	<b>Random number</b>
$R$	<b>Acceptance probability</b> Probability of accepting a proposed value
$M$	<b>Model</b> Mathematical model for linguistic parameters
$BF$	<b>Bayes Factor</b> A numerical factor related to the quality of the model fit
$X$	<b>Unknown</b>

### Appendix 3 - Segments used in the word list

Char.	Segment	Words containing this segment
0	e	<p>ego:, ew, jew, usted, vose, vōse, voste, embra, femmina, femev, femjv, fembra, femeje, mulierem, muxer, μολλη, μυλη, μυλε, μυλε, mujere, dōne, hominem, ombre, infantem, infante, fante, nenēj, nen, epuz, esposa, mulier, muxer, μολλη, μυλη, μυλε, mujere, epu, esposo, ma:trem, mek, madre, ma:dre, mer, patre, pev, padre, pa:dre, nema:l, nōmaje, piskem, peθ, peffe, pef, pefte, awem, abe, awikellum, useλ, passerem, passero, pasōre, peduklus, pedoli, pādukje, serpentem, sekrā, serpjente, serpente, sekrēfi, sērpen, farpe, serpens, sjerpe, serpe, serp, farpe, wermem, vek, berme, verme, vekmi, vermi, vjerme, arborem, albero, arbore, selba, selva, selve, flo:rem, fjo:re, floare, penna, peja, penv, pen, pene, pelo, pelu, kabejo, kapello, kabelu, kēβelu, kaβeθa, kavettsa, kabese, kēβese, testa, testā, tēste, orexa, orekkja, oreλv, orele, ureke, ne, nariife, gōle, el, ale, kwejo, seno, sen, pektus, pefo, pjept, kwōre, anime, fegato, fedā, so:lem, sole, sqare, soreli, lune, etwal, estreja, stella, istrelv, iftrele, stele, age, ploje, plōaje, flu:men, fjume, xivjev, mare, mek, sa:lem, sale, se, sare, terra, tek, tjera, tēv, tjere, nube, kali:ginem, kalidzine, nebula, njebla, nebbja, newlā, negurā, tene:braj, tē:nebre, tene:bra:s, tenēvk, tinjeblas, tē:nebre, tēnebrās, fyne, fumate, θjelo, tfer, wentum, bjento, ben, gelu:, jelo, dger, fwego, kinerem, tferene, θeniθa, tferufā, noctem, noffe, nōtte, nqapte, zuvne, dzornade, no:men, no:me, nume, no:minem, nombre, lenywa, bibere, beber, bere, bebev, biβer, bevi, komedere, komer, kome, kumer, manduka:re, māze, mandzare, morde:re, morder, mōrdere, mōvdek, mōrder, morsika:re, morsikare, murseka, sugere, syse, sudze, konspuere, kōspy, eskupir, sputere, esputar, sputare, ski:re, sapere, saber, sabek, seber, kogno:skere, konofere, konoffere, kopesev, kupiser, kunqafte, ko:gita:re, kufide, kodzitare, kudzeta, pe:nsa:re, pāse, pensar, pensare, pēse, pejsa:, time:re, temer, temere, temek, timer, temā, temi, teme, tremere, tremen, tremare, tremek, trimer, dormi:re, dormire, wi:were, vivere, vivek, viver, morire, mōvek, mōver, neka:re, nwaje, neka, anegar, annegare, tpe, tuwe, makta:re, mate, okki:dere, utfidere, utfide, pugna:re, puynare, battuere, battere, bater, bēter, bate, kaptia:re, fase, kattfare, pulsa:re, puse, pulsare, seka:re, sje, segar, segare, segav, sear, kurtare, ekskurta:re, ekuvte, skortare, ta:lia:re, taje, taλla:re, di:widere, dividere, divide, skindere, sēde, findere, findere, ender, fendere, fēdek, fēder, parti:re, partire, se:para:re, sōvte, separar, separare, separav, separa:, separa, pungere, pundgere, pundze, jugula:re, zygye, jugula:re, ra:dere, raer, radere, vāek, vāer, rade, vāze, rasare, fodere, kawa:re, kavare, çā:vle, ekskawa:re, eskabar, skavare, nata:re, nwotare, naviga:re, nāze, nabegar, navigare, wola:re, vole, volare, vōle, zvolare, fəmine, kamminare, tfinime, mafe, mergere, merdzere, merdze, ambita:re, andare, weni:re, benir, venire, veni, ekstendere, etādv, ekstender, estendere, istēdek, iftēder, æstendrā, ekstinde, jake:re, zeziv, jaθer, dzafe:re, zēvek, zēzer, dze, jesi, sede:re, ser, sedere, sek, sedze, sedenta:re, sentar, senta:, stare, estar, stare, leva:re, lōve, jebat, levare, levav, leva:, alia:re, ose, alsa:re, torna:re, tūvne, tornare, tu:rne, gyra:re, ziv, dzirare, vize, virare, torkw:re, torθer, tōrfere, turser, tōarfe, kadere, kaer, kadere, tjad, tōbe, tume, tene:re, tener, tenere, tek, ter, tsine, segurar, eksprimere, epvēdv, ekspremir, spremere, isprāmek, isprāmer, æspremā, esprimi, skreme, serrere, serar, seka, serare, seke, θerar, serrare, sere, appekto:re, apretar, stringere, etvēdv, estrejir, strindgere, stringe, strindze, frika:re, fveje, fregar, fregare, frea, freka, frikta:re, frote, frettare, lawa:re, lave, lavare, tergere, terdzere, ekstergere, estarsir, fterdze, eksu:ka:re, esujje, enxugar, affugare, suwe, limpida:re, tira:re, tiv, tirare, tire, puse, trahere, trarre, traze, trezer, tradze, impingere, impindgere, impindze, jakta:re, zote, efar, dgettare, dze, lanke:re, lōse, lantfare, e:runka:re, arrontfare, liga:re, lie, legar, legare, lea:, lega, apta:re, ko:nsuere, koser, kufire, kuzer, qase, komputa:re, kōte, kontare, e:numera:re, enumere, enumerar, enumerare, enumera, di:kere, deθir, dire, dizer, zitfe, ekspō:nere, sporre, spune, kanta:re, fāte, kantare, tātē, ludere, joka:re, zve, dzokare, dzuwe, flu:ktua:re, flyktpe, fluttuare, fluita:re, fluitare, fluere, flye, fluire, ko:la:re, kule, kolare, kōle, ekskurrere, eskurir, skorrere, ifkōvek, ifkurer, skurdze, kurrere, koror, korre, kōvek, kuvet, kudze, gela:re, zale, elar, dzelare, dzale, glakia:re, glase, gjatfjare, inglakia:re, ingetsa, bōyle, brufare, bōu:le, krema:re, kvame, kemar, kremare, kējmare, kejmave, flamma:re, flābe, flamear, fiammare, arde:re, arder, ardere, avdek, erder, arde, flagra:re, flagve, flagrare, inkendere, ēsādze, enθender, infendjare, isendzjar, æsendrā, infindze, ustula:re, ustolare, alter, grandem, grande, majjo:rem, mare, le, epe, espeso, spesso, espesu, ifpesu, grabe, greve, grew, grew, lerdo, pesaθo, pesante, pezadu, pezant, pekeno, pekenu, pikenu, brewis, brebe, breve, brew, bēf, etvwa, estrefo, stretto, menudo, delyaθo, delikato, dewgadu, subti:lem, sottile, subtsire, seko, sekko, seku, sek, dekstrum, djestro, destrā, derefo, drept, vermikulus, bermexo, vermiλlo, vevmeλu, rubeus, rubeo, rudze, wiridem, vek, berde, verde, verdi, verde, galben, amarellus, krokeus, krotfe, due, tres, tre, tref, kwi:nkwe, tfinjke, ekkumhi:k, k'em, kjen, tfine, ke, tfe, kome, tferu:t, nek, ne, et, e</p>

### Appendix 3 - Segments used in the word list

1	g	ego:, goel, gøj, fegato, figedu, agwē, lago, lagu, ka:li:ginem, negurā, gelu:, fwego, fogu, lāg, lenggwa, lingwa, ligwē, musəga, musəgar, su:gere, sugaḡ, sugar, kogno:skere, ko:gita:re, nəga, anegar, annegare, segaḡ, pungere, jugula:re, zygyale, nabegar, navigare, nəbəga, naviga, segurar, siguraḡ, fregar, frəga, iʃfrigar, tergere, ekstergere, enxugar, affugare, ɛʃugar, əʃuga, liga:re, legar, legare, zogagḡ, zuga, flugtwar, gela:re, glakia:re, glase, gjattʃjare, gləsa, inglakia:re, flagra:re, flagkə, flagrar, flagrare, flagrar, awgū, ałgū, əlgu, gḡā, grande, grande, grēdʒi, grēdi, longus, lungo, lōgu, largo, laḡgu, largu, gḡa, graso, grasso, graʃu, gras, gras, gordo, gḡo, grosu, grəs, grawis, grəjef, grabe, greve, gravi, gravi, grew, angustus, angosto, angusto, dewgadu, galbinus, galben
2	o:	ego:, no:s, no:i, no:, wo:s, vo:i, vo:, homo:, spo:s, o:b, flo:rem, fjo:re, flo:r, o:rikla, so:lem, no:men, no:me, no:minem, kogno:skere, ko:gita:re, ko:nsuere, ekspo:nere, ko:la:re, to:tus, po:k, majjo:rem, duo:s, kʷando:, kʷo:modo, no:n
3	ʒ	ʒə, ʒə, pluʒə, kalizēj, kelizēj, ʒel, ʒel, ʒuḡ, zorn, ʒəna, ʒuḡne, māʒe, mēʒaḡ, mēʒar, mənʒa, kuʒitaḡ, kuʒitar, pūʒiḡ, pūʒir, zygyale, naze, zeziḡ, ʒezek, ʒezer, ʒawrə, ʒiḡe, ʒirar, ʒira, əʃtriʒir, əʃtriʒir, əstərʒi, ʒəte, ʒejtar, ʒwe, zogagḡ, ʒuʒar, zuga, zuka, ʒəle, ʒilar, ʒəla, inʃindʒe, laʒʒ, du:ʒe:, kuʒ, zon
4	ə	ʒə, dənə, dəamna, əmə, əspəʒə, mərit, əspəs, marə, parə, tatə, nəmaje, pasəre, pədukje, səpen, abrə, ɕadə, plomə, pɛrə, panə, pər, ʃəvə, kəbəl, ʃəvə, testə, tʃəstə, urələ, bokə, bukə, golə, gurə, alə, inimə, fedʒə, ʌunə, lunə, əstəl, ajwə, apə, pluʒə, tərə, tsarə, newlə, negurə, tənəbrəs, tʃəʃə, sendrə, tʃenuʃə, diə, limbə, bəwrə, mənʒa, musəga, musəgar, musəʒa, əskupi, səʃe, kuneʃə, pənsa, pəsa, temə, biwrə, nəga, mətə, batrə, kəsa, səʒa, təla, təja, fəndrə, pərti, səvə, səpəra, rawrə, rəza, rəska, kəba, nəda, nəbəga, ʃəmine, kəmina, vənə, bəni, əstendə, ʒawrə, ʒəʃə, əsta, ləve, ʌəba, əlsa, tərsə, kawrə, kədə, tənə, təni, iʃprəmek, iʃprəmer, əspremə, sərar, səra, əʃtriʒir, əʃtriʒir, əstreḡ, frəga, frəsa, əstərʒi, əʃuga, trəwrə, əmpɛrə, ʒəte, ʌənsa, kənta, əskorə, korə, ʒəle, ʒəla, gləsa, krəma, ənsendə, əlgu, altrə, amplə, əspes, pəʒə, pəʒat, pəti, pətit, əstret, many, mənut, mənunt, dəlikat, destrə, bərməl, dowə, kwatrə, əla
5	j	jo, kabejo, kwejo, estreja, jubja, jelo, jaðer, jebar, amarijo, aja
6	o	jo, io, jo, nos, no, bos, vof, vos, vose, veste, mołłe, domina, doḡa, done, hominem, ombre, omēj, om, homo:, wəmo, nijo, nino, sponsa, esposa, ispoza, iʃpozə, mołłe, mariðo, marito, sponsus, esposo, spəzo, ispozu, iʃpozu, sokius, səʃo, sots, omaj, wazo, utʃello, paxaro, passero, pjoxo, pidəkkjo, piołu, poł, pedoli, arborem, arbol, albero, əvori, arbore, palo, fruto, frutto, flor, floḡ, kola, koda, plomə, pelo, kabejo, kapello, ovej, orexa, orekkja, orelə, orejə, orele, okulus, oxo, əkkjo, ołu, voli, ok!, naso, na:so, boka, bokka, boke, bokə, gola, golə, kolum, kwejo, kollo, seno, peʃo, petto, kor, kor, iyaðo, fegato, sol, sole, solikulus, soreli, o, pjoðʒa, ploje, rio, lago, lago, nublo, nuvola, nor, θjelo, ʃjelo, bjento, vento, jelo, ɖjelo, umo, fumo, fokum, fwego, fwəko, fogu, foyu, fok, noctem, noʃe, djurno, ɖorno, zorn, xornada, ɖornata, ɖornade, aɲo, anno, nomi, nomi, nombre, komedere, komer, kome, morde:re, moḡdɛ, moðer, moḡdek, morsika:re, moskar, morsikare, konspuere, kogno:skere, konəðer, konoffere, koḡesek, koḡosi, koɖʒitare, dormi:re, dormir, dormire, doḡmɛ, dormi, morir, morire, moḡek, okki:dere, kortar, koḡtaḡ, skortare, kosaj, fodere, nwotare, wolare, vole, bolar, volare, voaḡ, zvolare, zvolar, ose, torna:re, tornar, tornare, toḡnaḡ, torna:, toḡkʷe:re, toḡer, appektora:re, fəote, frotar, arronʃare, koser, komputa:re, kontar, kontare, konta:, sporre, joka:re, ɖokare, zogagḡ, kolar, kolare, koaḡ, skorrere, iʃkoḡek, əskorə, skori:, korer, korrere, koḡek, korə, kori, ustolare, omne:s, oɲi, todo, tutto, todu, todu, tot, muʃo, molto, mol, molc, tanto, okə, alguno, alkuno, poko, pəko, powku, otḡ, otro, altro, owtru, maɲo, maɲno, longus, longo, lungo, ʌoɲ, larʒo, largo, lato, anʃo, ampjo, graso, grasso, espeso, spesso, gordo, grossus, gḡo, grəso, grosu, grosu, gros, lerdo, lordo, pesaðo, pekeḡo, pitʃino, pikkolo, korto, korto, angosto, angusto, estreʃo, stretto, menudo, minuto, delyaðo, delikato, sottile, seko, sekko, djestro, destro, dereʃo, roxo, rosso, roʃu, roʃu, ros, roʃu, bermexo, vermiłło, rubjo, robbjo, rubeo, zon, amarijo, krokeus, kroʃeo, albo, uno, dos, dowə, kʷattwor, kwatro, kwattro, θinko, kwando, kʷo:modo, komo, kome, komu, no, non

### Appendix 3 - Segments used in the word list

7	i	io, no:i, vo:i, fe:mi:na, femmina, femine, mulierem, domina, hominem, infantem, infante, ifēfi, ni:jo, nino, ispoza, mulier, ma:i, mari:do, marito, maridu, marit, mērit, ispozu, sokius, mari, pari, animalia, alima:na, be:stia, bi:ffa, bi:fē, bis, piskem, pejfi, avi, awikellum, pidakkjo, pio:lu, pedoli, se:pēfi, sarpint, ve:mī, a:vori, silwa, frūi, pilus, kapillus, fivja, kapitia, o:rikla, voli, nariθ, nari:fe, naris, nērif, sinus, si, pi, pit, anima, anime, inimə, iya:do, fige:du, fiye:du, fijat, fikat, solikulus, soreli, istrele, pluwia, plūi, flumi, rio, viw, vi:u, riw, ri:pa:ria, vi:vje, rivi:u, nu:bilus, ka:li:ginem, kalina, kalidzine, kalizēj, kēlizēj, tinjeblas, kajkia, 'vint, kinerem, θeniθa, ffinize, nūi, nit, die:s, dia, di, diē, diə, zi, diurnum, diurna:ta, nomi, no:minem, ling <sup>wa</sup> , lingwa, limbə, bibere, bevi, mwardi, morsika:re, morsikare, kuspiz, kuspiz, eskupiz, askupi, fti, kinoh, koposi, ko:gita:re, ku:ide, kwidar, kodzitare, kuzitar, kuzitar, time:re, temi, trima:, dōmiz, dormir, dormire, dōmiz, durmir, durmi, dwa:mi, dormi, viw, bibir, vivere, vive, viw, viw, biwra, vivi, via, mu:iz, morir, morire, muri, mōri, muri, tu:ta:ri, oksiz, utfidere, uksi, ufide, batir, bati, kaptiare, ta:lia:re, di:widere, dibidir, dividere, dzividiz, dividi, dibidi, dividi, divide, skindere, findere, findere, partiz, partir, partire, partiz, partir, parti, pōrti, pūiz, pūiz, pūi, fwi, ifkēv, ifkēv, naviga:re, navigare, naviga:, naviga, fəmine, kaminar, kamminare, kēminar, kēminar, kəmina, fimine, camina:, ambita:re, vōiz, benir, venire, vi, vir, bōni, vini, viji, veni, istēde, iftēde, ekstinde, geziz, jesi, altia:re, ziz, xizar, dzirare, zizar, zira, dzira:, viz, birar, virare, virar, bira, keir, tōiz, tōi, tini, tinji, tsine, eksprimere, ekspremir, ifprēm, ifprēm, esprimi, stringere, estrepi, strindere, strizir, strizir, stringe, frika:re, frika:re, frisar, estarsir, estərzi, esqije, limpida:re, limpjar, tira:re, tiz, tirar, tirare, fira, tira, tire, tira:, impingere, impindere, impindē, xita, liga:re, lie, liya, ku:fi, kuzi, kuzi, di, deθir, dire, dizer, di, zife, ludir, fluita:re, fluitare, fluir, fluire, fwi, flwir, flui, eskurir, ifkōv, ifkōv, kuzi, kori, glakia:re, inglakia:re, inkendere, infendjare, infindze, opri, altri, alius, grēdi, spissus, ifpesu, grawis, grizif, gravi, grevi, pittitus, pōti, pōti, piti, 'pittinus, pittino, putsin, pitulus, pikkolo, pi:ful, brewis, brevi, striktus, istrejt, minu:tus, minuto, miudu, miudu, minu, minu:t, de:lika:tus, delikato, dēlikat, sutil, sottile, sufwi, subtil, su:ti, subtsire, sikkus, direjte, direjte, vermikulus, vermi:lo, wiridem, galbinus, amarijo, kwatri, θinko, ffinke, sinke, 'finke, ffinke, isi, aki, kwi, eki, illa:k, ibir, vi, ai, ei, k'is, ki, kwi, ffine, k'id, ni, i, fi
8	w	ew, jew, wo:s, wōmo, pwasō, awem, aw, awikellum, wazo, wermem, silwa, sewva, paw, kawde, kōw, pwal, kwejo, kwel, kwore, awme, fwa, sōw, etwal, aywa, akkwa, agwe, ajwə, ēw, pluwia, ri:wus, viw, riw, riw, saw, nevwe, newlə, sēw, wentum, fwego, fwōko, lengwa, lingwa, ligwe, bwō, bewra, mwardi, savwa, kwidar, dwa:mi, wi:were, biwra, nwaje, tuwe, di:widere, pwēd, rawra, fwi, kawa:re, ekskawa:re, nwotare, wola:re, vwar, weni:re, zawra, swa, fwa, kawra, lawa:re, suwe, tēwra, zwe, dzuwe, flugtwar, fwi, flwir, awgū, powku, owtru, aw, grwes, grawis, grew, grew, brewis, brew, etkwa, dewgadu, sufwi, dkwat, wiridem, awvu, dowə, tōwa, k'attwor, kwatro, kwattro, kwatru, kwatrə, kwat, kwatri, ffinke, kwi, kwi, kwa, kwe:, kwando, kwēdu, kwan, kwand, kwant
9	o	zo, nōjs, nōf, vōjs, vōse, dōnna, dōnə, done, om, omē, omə, om, wōmo, spōza, əspōzə, spōzo, əspōs, sōfo, pidakkjo, flō, kōw, kōde, plōm, əraj, əkkjo, bōk, bōce, gōle, kōlu, kōl, kwōre, kō, kōr, sōw, sōl, sōl, sōl, sōlej, njoly, fwōko, fōk, nōtte, nōt, zōna, nōm, nōj, mōrdere, kōnet, kinoh, dōmiz, mōri, oksiz, vōle, tōd, tōtfere, tōrsə, lōji, kōle, tō, pōko, pōk, grōsso, grōs, rōs, rōbbjo, rōf, grōk, kōmā, kōm, kōmē
10	dz	dzi, fedzə, pjoddza, kalidzine, dzelo, dzer, dzu:, dzorno, dzu:, dzornata, mandzare, sudze, kodzitare, kudzeta, dzividiz, pundzere, pundze, nedzi, merdzere, merdze, dzafere, dzere, dzirare, dzira:, strindere, strindze, terdzere, fterdze, tradze, impindere, impindze, dzettare, dzete, dzokare, dzuwe, dzujar, skurdze, kurdze, dzelare, dzale, isendzjar, grēdi, rudze, dzen
11	r	dzi, na:ris, isendzjar
12	j	jo, jew, nōjs, vōjs, femje, femeje, mujere, mujere, omaj, nāmaje, ufjel, pjoxo, pidakkjo, pju, pēdukje, serpjente, sje:pē, sje:pe, vjer, vjer, vjerme, frujt, fjo:re, pjuma, fivja, orekkja, əj, əkkjo, u:j, gōj, pjept, fijat, jubja, pjoddza, ploje, plōaje, fjume, vi:vje, tjera, tjere, njoly, njebla, nebbja, tinjeblas, sjel, θjelo, bjento, djurno, skujpa, kujda, sje, taje, teji, taja:, taja, jugula:re, jugula:re, jake:re, jesi, fjade, tinji, esqije, suja:, limpjar, jaktare, lōji, jōka:re, dzujar, gjattfjare, fjammar, ēsādje, infendjare, isēdjar, majjo:rem, ampjo, grizif, djestro, rubjo, rōbbjo, kjen

### Appendix 3 - Segments used in the word list

13	n	no:s, nu, nos, no:i, nojs, nɔf, no, no:, noj, fe:mina, femmina, femine, domina, dɔnna, done, dɔnə, dɔne, dɔamnə, hominem, infantem, infante, fante, nijo, nino, nenēj, nen, sponsa, sponsus, animalia, nema:l, nɔmaje, serpentem, serpente, serpente, sɔrpen, sarpint, serpens, penna, pen, pene, pen, pene, panə, na:sus, ne, naso, na:so, nas, na:s, nariθ, nariʃe, naris, neriʃ, na:rɪs, sinus, seno, sen, san, anima, anime, inimə, lu:na, lyn, luna, ʎunə, lɔn, lune, lunə, flu:men, nu:be:s, ny, nube, nuvēj, nuvēj, nu:bilus, nublo, nuvola, nubladu, nuʃuʃ, nu:l, nor, ka:li:ginem, kalina, kalidʒine, nebula, njɔly, njebla, nebbja, nɛvwɛ, newlə, negurə, tene:braj, tɛ:nebre, tene:bra:s, tenebɔ, tinjeblas, tɛ:nebre, tɛnebrəs, wentum, bjento, vento, ben, 'vint, vint, kinerem, ʃenere, sɛndrə, θeniθa, ʃfinizɛ, ʃfenuʃə, noctem, nɔi, nɔʃe, nɔtte, nɔjti, nit, nyt, nɔapte, diurnum, djurno, ɟorno, zorn, zɔɔna, diurna:ta, zɔɔne, xornada, ɟornata, ɟornade, annum, anno, ɛnu, an, no:men, nɔ, no:me, nomi, nomi, nɔm, nɔ, nɔj, nume, no:minem, nombre, lingʷa, lingwa, 'lɛnge, manduka:re, mandukar, mandʒare, minka, konspuere, kogno:skere, kɔnetɪ, konoθɛr, konoffɛr, kuneʃə, kinɔh, kunɔafte, pensare, pensar, pensare, pɔnsa, neka:re, nwaje, nɔga, neka, anegar, annegare, pugna:re, skindere, findere, findere, ender, fɛndere, fɛndrə, pungere, punɟere, punɟe, nata:re, nadar, nwotare, nadaɔ, nɛðar, nɔda, nada:, naviga:re, naʒe, nabegar, navigare, naviʒaɔ, nɛviʒar, nɔbɔga, nɛɟi:, naviga:, naviga, fəmine, kaminar, kamminare, kəmina, ʃimine, camina:, andar, andare, weni:re, vɔniɔ, benir, venire, bəni, vini, veni, ekstendere, ekstender, estendere, əstendrə, ekstinde, sedenta:re, sentar, senta:, torna:re, tuɔne, tornar, tornare, toɔnaɔ, turnar, turna, tu:rne, torna:, turna, tene:re, tɔniɔ, tener, tenere, tani, tini, tinji, tsine, stringere, strindʒere, stringe, strɛngi:, strindʒe, enxugar, impingere, impindʒere, impindʒe, lankea:re, lanθar, lanʃare, ʎɔnsa, lanci:, lanʃa:, ɛ:runka:re, arankar, arronʃare, ko:nsuere, kontar, kontare, konta:, ɛ:numera:re, enumerare, enumerar, enumera, numara, ekspɔ:nere, spune, kanta:re, kantar, kantare, kanta:, canta:, kinta, inglakia:re, ingetsa, inkendere, enθender, inʃɛndʒare, isɛndʒar, ənsendrə, inʃindʒe, omne:s, tantus, tanto, tant, tanc, alguno, alkuno, magnus, grandem, grande, grande, gran, grant, longus, longo, lungo, lunk, lung, anʃo, pe:sant, pesante, pezant, 'pittinus, pittfino, pekenu, pikenu, putsin, angustus, angosto, angusto, minu:tus, mɔny, menudo, minuto, mənut, minu, minu:t, mɔrunt, galbinus, zon, ɟen, galben, u:num, uno, un, unu, kʷi:nkʷe, θinko, ʃinʃ, kjen, ʃine, kʷando:, kwando, kwan, kwand, kwant, kind, no:n, nɔ, no, non, nɛw, nu, nek, ni, ne, nɛj, nɛj, nɛ
14	s	no:s, nos, nojs, wo:s, bos, vɔjs, bus, vos, ɛsted, vɔse, voste, sponsa, esposa, spɔza, ispoza, əspɔzə, mari:tus, sponsus, esposo, spɔzo, ispozu, əspɔs, spo:s, sokius, sɔʃo, sots, be:stia, bis, piskem, pes, pwasɔ, useɔ, passerem, passero, pasɛru, pasɛre, peduklus, serpentem, sɛpɔ, serpente, serpente, sɛpɛʃi, sirpɛti, sɔrpen, sɛɔpɛ, sarpint, serpens, sɛrpe, sɛrpe, serp, silwa, selba, selva, sɛwva, sɛlvə, selve, pa:lus, fru:ktus, pilus, kapillus, kavettsa, kabese, kɛβesɛ, testa, testa, tɛstɛ, testə, ʃɛs, teste, tɛastə, okulus, na:sus, naso, na:so, nas, na:s, naris, na:rɪs, sinus, sɛ, seno, seju, seju, si, sen, san, pektus, so:lem, sol, sole, sɔw, sɔɔ, sɔɔ, sɔɔ, sɔare, solikulus, sɔɔɛj, soreli, ste:lla, estreja, stella, istrelə, əstɛ, stɔ:l, stele, stɛa, ri:wus, sa:lem, sɛl, sal, sale, saw, se, sa:l, sare, nu:be:s, nu:bilus, tene:bra:s, tinjeblas, tɛnebrəs, fumase, sjel, sew, sel, si:ɔ, fu:mus, sɔdɔ, sendrə, sɛ:d, sizɛj, die:s, morsika:re, moskar, morsikare, musəga, musəgar, murseka, su:gere, syse, sugaɔ, sugar, sysi:, suɟe, konspuere, kɔspye, kuspiɔ, eskupiɔ, əskupi, skujpa, sputere, esputar, sputare, spuda:, ski:re, sapere, savwaɔ, saber, sabɛ, sɛber, sɔβe, savɔr, save:, kogno:skere, koɔsesɛ, kupiser, koɔosi, pe:nsa:re, pɔse, pensar, pensare, pɛsaɔ, pɛsar, pɔnsa, pɛse, peɔsa:, pɔsa, ɔksiɔ, uksi, fase, kasaa, kɛsar, kɔsa, ʃɛsi:, pulsa:re, puse, pulsare, pulsa:, pulsa, seka:re, sje, segar, segare, segaɔ, siʒar, sɔya, sea:, ekskurta:re, skortare, skurta:, skurta, skindere, sɛde, se:para:re, sɔvwɛ, separar, separare, separaɔ, sipɛrar, sɔpɛra, separa:, separa, rasar, rasare, rasa:, raskar, rɔska, kosaɔ, kusar, ekskaware, eskabar, skavare, ekstendere, ekstender, estendere, istɛdeɔ, əstendrə, ekstinde, jesi, sede:re, swaɔ, ser, sedere, sɛɔ, sedenta:re, sentar, sɛtar, senta:, stare, estar, stare, əsta, ɛs, sta:, sta, ose, aɔsa, aɔsar, əlsa, hɔ:si:, turser, tɔrsə, segurar, siguraɔ, siyurar, eksprimere, ekspremir, sprɛmere, əsprɛmɔ, esprimi, skreme, serrere, serar, seɔa, sɔrar, sɔra, serare, seɔe, serrare, siɔar, sɛre, stringere, estɛpiɔ, strindʒere, əstɛpɔ, stringe, strɛngi:, strindʒe, frisar, frɔsa, ekstergere, estarsir, əstɛrʒi, eksu:ka:re, esɔije, suwe, suja:, uska, puse, pu:si:, pulsa:, lɔse, lɛsa, lɛsar, ʎɔnsa, ko:nsuere, koser, ɔase, ekspɔ:nere, sporre, spune, ekskurrere, eskurir, skorrere, əskorə, skori:, skurdʒe, glase, glɔsa, ɛsɔdʒe, isɛndʒar, isɛdʒar, ənsendrə, ustula:re, ustolare, ustura, omne:s, to:tus, multus, tantus, paɔkus, alius, magnus, longus, largus, la:tus, amplus, krassus, graso, grasso, gras, gras, gras, spissus, espeso, spesso, espɛsu, iʃpesu, əspɛs, spɛ, gurdus, grossus, grɔsso, grosu, grosu, grɔs, grwɛs, gros, grawis, lurdus, pe:sant, pesaɔo, pesante, pittitus, 'pittinus, pitulus, kurtus, brewis, angustus, angosto, angust, striktus, estɛrʃo, stretto, istɛrtju, əstɛrt, stɔr:, stɛrt, strimt, minu:tus, de:lika:tus, subti:lem, sutil, sottile, suʃiw, suptil, su:ti, suti:l, subtsire, sikkus, sek, seko, sekko, seku, sek, seʃ, sek, dekstrum, djestro, dɛstro, dɛstru, dɛstrə, dire:ktus, destra, russus, rosso, ros, rɔs, vermikulus, rubeus, galbinus, amarellus, krokeus, albus, duo:s, dos, dojs, duas, duɛs, tre:s, tres, tres, sɛk, siku, siɔk, isi, kʷis, si:k

### Appendix 3 - Segments used in the word list

15	u	nu, vu, bus, tu, usted, mulierem, muxer, мулѣх, мулѣт, мулѣ, муір, mujere, epuz, mulier, muxer, мулѣх, мулѣт, мулѣ, муір, mujere, mari:tus, maridu, mēridu, sponsus, epu, ispozu, ifpozu, sokius, awikellum, uttfello, useł, uttfjel, paseru, peduklus, pu, piołu, pju, pədukje, arvuri, arbul, pa:lus, fru:ktus, fruto, frutto, frute, frujt, frut, frukt, kua, pluma, pjuma, plumē, pilus, pelu, pilu, kapillus, kabelu, kəβelu, urełə, ureke, okulus, ołu, na:sus, bukka, buf, bukə, gula, gurə, kolum, ku, kolu, sinus, seju, seju, pektus, pejtu, pejtu, fi:ka:tum, figədu, fiγədu, solikulus, luna, lue, łunə, lune, lunə, pluwia, jubja, juve, plużə, fjume, flumi, flumi, flum, ri:wus, ɣiu, lakum, lagu, layu, nube, nuvěj, nuvěj, nu:bilus, nublo, nuvola, nubladu, nuβuł, nebula, negurə, fumata, fuma:ta, fumasə, fumate, kajlum, wentum, vētu, fu:mus, umo, fumo, fumu, fum, fokum, fogu, foyu, fʃenufə, diurnum, zuκ, djurno, diurna:ta, zuκne, annum, ɛnu, nume, kumer, manduka:re, mandukar, murðer, musəga, musəgar, musəya, murseka, sugaκ, sugar, cuca:, suðe, konspuere, kuspik, kufpir, eskupir, əskupi, skujpa, sputere, esputar, sputare, spuda:, kupiser, kunefə, kunəqafte, kuzitar, kuzitar, kujda, kuðgeta, durmic, durmi, durmi:, muɣik, muɣer, muri, muri:, muri, tuwe, uttfidere, uksi, uttfide, pugna:re, pupar, puɣnare, puɣa, battuere, pulsa:re, puse, puxar, pulsare, puɣaκ, puɣar, pulsa:, pulsa, kurta:re, kurtar, ekskurta:re, ekuste, skurta:, skurta, pungere, pundžere, puɣi, pundže, jugula:re, jugula:re, kusar, bula, zbura, lua, tuκne, turnar, turna, turna, turser, tumbar, tumba, tume, segurar, siguraκ, siγurar, enxugar, affugare, ɛfugar, ɛfuyar, əfuga, suwe, suja:, uska, puse, pulsa:, e:runka:re, aruŋka, ko:nsuere, kuðκ, kuffire, kuzer, kuzi, kuzi, komputa:re, kumta, e:numera:re, enumeκe, enumerar, enumerare, enumera, numara, spune, ludir, xugar, zuɣar, zuga, ɟuwe, ɟuja:, zuka, flu:ktua:re, flugtwar, fluttuare, flutuak, flutuar, fluktua, fluctua, fluita:re, fluitare, fluere, fluir, fluire, flui, kule, kuar, kuła, ekskurrere, eskurir, ifkurer, skurðe, kurrere, kuɣik, kuɣer, kuðe, bruɣfare, bruza:, ustula:re, ustolare, ustura, to:tus, tu, tutto, todū, dut, multus, mu, muɣfo, muɣtu, mult, tantus, tētu, tētu, alguno, alkuno, əlgu, paɣkus, powku, owtru, alius, magnus, longus, lungu, lōgu, lunk, lung, largus, laɣgu, largu, la:tus, latu, amplus, ɛfu, krassus, grafu, spissus, espesu, ifpesu, gurdus, grossus, grosu, grosu, lurdus, luκ, pezadu, pizaðu, pittitus, 'pittinus, pekenu, pikenu, putsin, pitulus, piɣful, kurtus, kuκ, kuɣtu, kurtu, kurt, kurt, angustus, angusto, iŋgust, striktus, istrejtu, iftrejtu, minu:tus, menudo, minuto, miudu, miuðu, mənut, minu, mərunt, de:lika:tus, dewgadu, deɣaðu, subti:lem, sutil, suɣfiw, suptil, sutil, subtsire, sikkus, seku, dekstrum, destrū, deɣtru, di:re:ktus, russus, ɣu, ɣofu, rofu, vermikululus, vərmełu, virmejłu, rubeus, ɣuɣ, rubjo, rubeo, ruðe, galbinus, amarellus, əmaɣelu, əmərɣelu, krokeus, albus, awvu, alvu, u:num, uno, un, uɣ, unu, duo:s, duaj, due, duas, dues, duɣf, kwatru, patru, siku, ekkumhi:k, kwėdu, komu, kum, nu
16	ɟ	noɟ, vof, ifpoze, ifpozu, biffa, biɣe, peffe, pejfi, pejfi, pef, pefte, ɟarpe, ɟarpe, ɟəvə, ɟəve, teɣte, neriɟ, buɟ, iftrele, juve, treɣɣ, sizeɟ, fʃenufə, kufpir, ɣti, konofɟere, kunefə, kunəqafte, ɟase, puɣaκ, puɣar, ɟindere, ɣaɟaκ, ɣeɟkar, ifkeɣaκ, ifkeɣar, ɟəmine, məɣfe, iftėder, ɟedə, iftar, altɟa:, ɟwaκ, ifpɣəmeκ, ifpɣəmer, əɣtriɣir, əɣtriɣir, ifɣrigar, ifɣriɣar, ɣterðe, affugare, ɛfugar, ɛfuyar, əfuga, ɟāte, ifkoɣeκ, ifkurer, ɛfu, graɟu, ifpesu, iftrejtu, deɣtru, ɣofu, ɣofu, roɟu, dojɟ, duɣf, tref, ɟi
17	oj	noj, voj, nojti, froj, rojɟ, dojs, dojɟ, doj
18	v	vu, vo:ɟ, vɔjs, vof, vos, vo:, voj, vose, vɔse, veste, avi, avi, veκ, verme, veκmi, vermi, vɣrm, vjer, vjer, vjerme:, əɣvori, arvuri, selva, sɣwva, sɣlvə, selve, ɟəvə, ɟivja, cavej, ɟəve, kavettsa, voli, juve, ɣivjeκ, rivi:ɣ, nuvěj, nuvěj, nuvola, nɣvwə, treɣɣ, vā, vento, vētu, vē, 'vint, vint, bevi, savwaκ, savə:r, save:, vivκ, vivere, viveκ, viver, vivi, via, dividere, ɟividɣiɣ, diviðir, dividi, divide, səvə, kavare, keɣaκ, keɣar, ɟəvle, ɟava:, skavare, ifkeɣaκ, ifkeɣar, zɟava:, naviga:re, navigare, naviɣaκ, nɣviɣar, naviga:, naviga, vole, volare, voaκ, vwar, vɔle, zvolare, zvolar, vənɣ, venire, viɣ, vir, vini, viɣi:, veni, levare, ləve, levare, levκ, livar, leva:, viɣe, virare, virar, lave, lavare, leɣar, lavar, greve, gravi, gravi, grav, grevi, breve, brevi, brevi, vermikululus, vɣrmej, vɣrmelə, virmejłu, veκ, verde, verdi, vert, veκ, vert, verde, awvu, alvu, vi
19	b	bos, bus, embra, fembra, ombre, be:stia, biffa, biɣe, bis, abe, berme, arborem, əɣbɣ, albero, abɣə, o:b, arbul, arbore, selba, kabejo, kabelu, kəbeł, kabesə, bukka, buɟ, boka, bokka, boκə, bokə, bɔk, bɔce, bukə, jubja, nu:be:s, nube, nu:bilus, nublo, nubladu, nebula, njebla, nebbja, tene:braj, tɣnebre, tene:bra:s, tenebκ, tinjeblas, tɣnebre, tənebras, bjento, ben, nombre, limbə, bibere, bwκ, beber, bere, bebeκ, biɣer, bɣwɣə, bəκ, bevi, bɣə, saber, sabə, səber, bibir, biwɣə, battuere, batɣ, batir, battere, bateκ, bɣter, batɣə, bate, bati, dibidir, dibidi, kabar, kəba, eskabar, nabegar, nəbəga, bolar, bula, zbura, ambita:re, benir, bəni, jebar, ləba, birar, bira, tōbe, tumbar, tōbaκ, tōbar, tumba, bɣyle, bruɣfare, bɣu:le, bruza:, flābe, grabe, brewis, bɣef, brebe, breve, brevi, brevi, brew, bɣef, subti:lem, subtsire, bermexo, bərmel, rubeus, rubjo, rəbbjo, rubeo, rojɟ, berde, galbinus, qalben, albus, albo, alb, ibi:



### Appendix 3 - Segments used in the word list

20	t	tu:, ty, tu, usted, voste, infantem, infante, fante, ifēti, mari:tus, marito, marit, mari:t, mōrit, ma:trem, patre, tata, tatə, be:stia, pefte, utifello, serpentem, serpiente, serpente, sirpēti, sarpint, fruk:tus, fruto, frutto, frute, frujt, frut, frukt, kapitia, kavettsa, testa, tet, testa, teste, tēftē, testə, teste, tēgasta, pektus, petto, pejtū, pejtū, pit, pet, pjept, fi:ka:tum, fegato, fō:t, fija:t, fikat, ste:lla, etwal, estreja, stella, istrelē, iftrele, əstel, stəl, stēle, stēa, lat, terra, tēx, tjera, tērra, tēxə, tēxə, tērə, tēx, tjere, tene:braj, tē:nebre, tene:bra:s, tenebēx, tinjeblas, tē:nebre, trēvēf, tēnebrās, fu:ma:ta, fumata, fuma:ta, fumate, wentum, bjento, vento, vētu, 'vint, vint, noctem, nōtte, nojti, nit, nyt, nōt, nōapte, diurna:ta, dǵornata, sputere, esputar, sputare, fti, kōnētēx, kunqafte, ko:gita:re, kođitare, kuzitaēx, kuzitar, kuđgeta, time:re, temer, temere, temēx, timer, temə, temi, teme, tremere, tremar, tremare, tremēx, trimer, trima:, tu:ta:ri, tje, tuwe, makta:re, mate, matar, mataēx, mētar, mēta, utfidere, battuere, batēx, batir, battere, bateēx, bēter, batrə, bate, bati, kaptia:re, katfjare, kurta:re, kortar, kōrtarēx, kurtar, ekskurta:re, ekuēte, skortare, skurtar, skurta, ta:lia:re, tqje, taxar, ta:lā:re, ta:lāx, ta:lāx, tēlāx, tēlāx, teji:, taja:, tēja, fēt, parti:re, paktiēx, partir, partire, pērtir, pērti, pō:rti, parti:, nata:re, nwotare, ambita:re, ekstendere, etādx, ekstender, estendere, istēdex, iftēder, əstendrə, ekstinde, sedenta:re, sentar, sētar, senta:, sta:re, etēx, estar, stare, iftar, əsta, sta:, sta, altia:re, altfā:, torna:re, tuēne, tornar, tornare, toēnēx, turnar, turna, tu:rne, torna:, turna, tōrk'e:re, tōdx, tōrēer, tōrfjere, turser, tōrsə, tōarfe, tōbe, tumbar, tōbēx, tōbar, tumba, tume, tene:re, tēniēx, tener, tenere, tēx, ter, tēni, tini, tinji, appektora:re, apretar, ēpirtar, stringere, etēdx, estrepiēx, strindgere, əftrizir, əftrizir, əstrepiēx, stringe, strengi:, strindge, frikta:re, fōte, frotar, frettare, tergere, tēdgere, ekstergere, estarsir, əstərzi, fterdge, tira:re, tiēx, tirar, tirare, tira, tire, tira:, trahere, tēxēx, traze, traze, trēzer, trēwrə, traj, tradge, jakta:re, zōte, dgettare, zejtar, xita, dgete, aptare, atar, ētar, komputa:re, kōte, kontar, kontare, kōtar, kumta, kontar, kanta:re, fāte, kantar, kantare, kētar, kanta, fāte, canta:, kinta, flu:ktua:re, flyktje, flugtwar, fluttuare, flutuēx, flutuar, fluktua, fluctua, fluita:re, fluitare, gjatfjare, ustula:re, ustolare, ustura, to:tus, tu, todo, tutto, todū, tot, tō, dut, multus, molto, mūjtu, mult, tantus, tanto, tētu, tētu, tant, tanc, alter, otēx, otro, altro, owtru, altrə, ot, altri, alt, grant, la:tus, lato, latu, lat, pesant, pesante, pōzat, pezant, pittitus, pēti, pētit, piti, 'pittinus, pittino, pitulus, kurtus, korto, korto, kuētu, kurtu, kurt, kurt, angustus, angosto, angusto, ingust, striktus, etēwa, estrefo, stretto, istrejtū, iftrejtū, əstret, stēx, stret, strimt, minu:tus, minuto, mēnut, minu:t, mērun, de:lika:tus, delikat, dēlikat, subtilēx, sutil, sottile, suptil, su:ti, sutil, dekstrum, djestro, dēstro, dēstru, dēftru, destrə, di:re:ktus, dēwat, dēstra, di:rejtē, di:rejtē, dret, drō:t, 'dret, drept, vērt, vērt, trē:s, tēwa, tres, tre, tref, trē:s, trō:, 'tre:, trej, k'attwor, katēx, kwatro, kwattro, kwatru, kwatrə, kwat, kwatri, patru, kwant, fjemu:t, et
21	u:	tu:, u:hē:, fru:ktus, plu:ma, u:j, ku:ēx, ku:r, lu:na, plu:ēx, flu:men, nu:be:s, nu:bilus, nu:l, fu:ma:ta, gelu:, fu:mus, fu:k, dju:, dju:, su:gere, tu:ta:ri, tu:rne, eksu:ka:re, pu:si:, lu:dere, flu:ktua:re, bēu:le, ku:ēx, minu:tus, minu:t, du:ze:, su:ti, u:num, fjemu:t
22	y	ty, fry, plym, lyn, ky, ny, njoly, fyne, nyt, syse, sysi:, kōspye, zygye, gyra:re, flyktje, flye, bēyle, mēny
23	d	usted, domina, dam, doja, dōna, donə, dōnə, dēm, dōne, dōamnə, maridu, pa:dre, peduklū, pidōkkjo, pedoli, pēdukje, kaŋda, koda, kawde, kōde, cōadə, figēdu, pjodđja, nubladu, sādēx, sendrə, sē:d, diē:s, dia, di, diē, diə, diurnum, djurno, diurna:ta, xornada, dōrnade, komedere, manduka:re, mandukar, morde:re, mōdx, mōrdere, mōdxēx, mwardi, spuda:, kuide, kwidar, kujda, kēdx, dormi:re, dōxmīx, dormir, dormire, dōxmīx, dūxmīx, durmi, dwāxmī, durmi:, dormi, okki:dere, utfidere, ufide, di:widere, dibidir, dividere, dividiēx, dibidi, dividi, divide, skindere, sēde, findre, findere, fādēx, ender, fēdere, fēdex, fēder, fēdrə, pwēdx, ra:dere, radere, rada:, rade, fodere, nadar, nadaēx, nēda, nada:, andar, andare, ēdax, ēdar, ekstendere, etādx, ekstender, estendere, istēdex, iftēder, əstendrə, ekstinde, sede:re, sedere, fedə, sedenta:re, tōdx, kadere, kadere, fjadē, kōdē, epēdx, etēdx, limpida:re, kudē, di:kere, diē, dēθir, dire, dizer, di, diē, di:, lu:dere, ludir, arde:re, aēdx, arder, ardere, aēdx, ērder, arde, inkendere, ēsādje, enθender, inθendjare, isēdjare, ənsendrə, inθindze, todo, todū, dut, grandem, grande, grande, grēdi, gurdus, gordo, lurdus, lardo, lordo, pezadu, menudo, miudu, de:lika:tus, du:ze:, delyado, delikato, dewgadu, delyadu, dēlikat, dekstrum, djestro, dēstro, dēstru, dēftru, destrə, di:re:ktus, dēwat, dērefjo, dēstra, di:rejtē, di:rejtē, dret, drō:t, 'dret, drept, wiridem, berde, verde, verdī, verde, du:os, dō, dos, dojs, dojf, dō:, doj, duaj, due, dowə, duas, duēs, duef, k'w'id, k'w'ando:, kwando, kwēdu, kwand, kind, k'w'o:modo
24	f	fe:mina, fam, femmina, femeēx, femjē, fembra, fōem, femine, femeje, infantem, āfā, infante, fante, ifēfi, ifēti, efā, fruk:tus, fūqi, fruto, frutto, frute, frujt, fry, frut, frukt, flo:rem, flōēx, flōr, fjo:re, flōx, flō, flōēx, flō:r, fjoare, ca:f, fi:ka:tum, fwa, fegato, figēdu, fiyēdu, fedə, fō:t, fija:t, fikat, flu:men, fjume, flumi, flumi, flum, fu:ma:ta, fyne, fumata, fuma:ta, fumasē, fumate, fu:mus, fumo, fumu, fum, fokum, fō, fwego, fwōko, fogu, foyu, fōk, fō:, fu:k, fok, findere, fādēx, fendere, fēdex, fēder, fēdrə, fēt, fodere, fwīx, frika:re, fēje, fregar, fregare, frōga, froj, frea, freka, iffrigar, iffriyar, frikta:re, fōte, frotar, frettare, frisar, frōsa, flu:ktua:re, flyktje, flugtwar, fluttuare, flutuēx, flutuar, fluktua, fluctua, fluita:re, fluitare, fluere, flye, flui, fluire, flwīx, flwir, flui, flamma:re, flābe, flamear, fjammare, flāma, flagra:re, flagēx, flagrar, flagrare, flagēx, flagrar, gijjef, bēf, bēf

### Appendix 3 - Segments used in the word list

25	e:	fe:mina, be:stia, pe:l, ste:lla, nu:be:s, tene:braj, tene:bra:s, die:s, morde:re, save:, pe:nsa:re, time:re, se:para:re, jake:re, dʒaʃe:re, sede:re, tork <sup>w</sup> e:re, tene:re, e:runka:re, e:numera:re, arde:re, omne:s, pe:sant, de:lika:tus, du:ʒe:, di:re:ktus, tre:s, 'tre:
26	m	fe:mina, fam, embra, femmina, femeʋ, femjə, fembra, fœm, fəmine, femeje, mulierem, muxer, moʎʎe, muʎeʋ, muʎer, muʎe, mui:r, mujere, domina, dam, dœm, dɔamɲə, hominem, ɔm, ombre, oměj, ɔměj, ɔmə, ɔm, om, homo:, wɔmo, infantem, mulier, muxer, moʎʎe, muʎeʋ, muʎer, muʎe, mui:r, mujere, mari:tus, maʁi, mariðo, marito, maridu, məriðu, marit, mari:t, mərit, ma:trem, meʋ, maðre, ma:dre, mēj, marə, meʋ, mari, animalia, omaj, alimaɲa, nema:l, nəmaje, piskem, awem, awikellum, passerem, serpentem, wermem, berme, verme, veʋmi, vermi, veʋm, vjerme, arborem, flo:rem, plu:ma, plym, pluma, pjuma, plomə, pləm, plume, kollum, anima, ɔm, alma, awmə, almə, ɔ:m, anime, inimə, fi:ka:tum, so:lem, flu:men, fjume, flumi, flumi, flum, lakum, mare, meʋ, mar, maʋ, mar, meʋ, ma:r, sa:lem, ka:li:ginem, fu:ma:ta, fyne, fumata, fuma:ta, fumase, fumate, kajlum, wentum, fu:mus, umo, fumo, fumu, fum, fokum, kinerem, noctem, diurnum, annum, no:men, no:me, nomi, nomi, nɔm, nume, no:minem, nombre, limbə, komedere, komer, kome, kumer, manduka:re, mǎʒe, mandukar, mandʒare, mǎʒəʋ, mǎʒar, mǎʁʒa, maʁi:, maɲʒa:, minka, morde:re, moʋdʋ, moʋðer, mǎrdere, moʋdeʋ, mǎrdər, mwardi, morsika:re, moskar, morsikare, musəʒa, musəʒar, musəʒa, murseka, time:re, temer, temere, temeʋ, timer, temə, temi, teme, tremere, tremər, tremare, treməʋ, trimer, trima:, dormi:re, dəʋmiʋ, dormir, dormire, dəʋmiʋ, durmir, durmi, dwaʋmi, durmi:, dormi, muʋiʋ, morir, morire, moʋeʋ, muʋer, muri, mǎri, muri:, muri, makta:re, mate, matar, mataʋ, mɛtar, mɛta, maʃa:, ʃəmine, kaminar, kamminare, kəmiɲəʋ, kəmiɲar, kəmina, ʃimine, camina:, maʃʃe, ma:rʃi:, mergere, mɛrdʒere, mɛrdʒe, ambita:re, tumbar, tumba, tume, ekspimere, ekspremir, sprəmere, iʃprəmeʋ, iʃprəmer, əsprəmə, esprimi, skreme, limpida:re, limpjar, impingere, impindʒere, əmpɛɲə, impindʒe, komputa:re, kumta, e:numera:re, enumeʋe, enumerar, enumerare, enumera, numara, krema:re, kʁame, kɛmar, kremare, kɛjmare, kejməʋe, krəma, flamma:re, flamear, ʃammare, ʃama, omne:s, multus, mu, muʃo, molto, mǔjtu, mol, molc, mult, magnus, maɲo, maɲɲo, grandem, majjo:rem, mare, amplus, ampjo, amplə, strimt, minu:tus, mǎny, menudo, minuto, miudu, miuðu, mǎnut, minu, minu:t, mǎrunt, subti:lem, dekstrum, vermikululus, veʋmej, bermexo, vermiʎʎo, veʋmeʎu, virmejʎu, bəʋmeʎ, wiridem, amarellus, amarijo, əmaʁelu, əmɛʁelu, u:num, ekkumhi:k, k <sup>w</sup> em, k <sup>w</sup> o:modo, kɔmǎ, komo, kome, komu, kɔm, kɔmɛ, ʃemu:t, kum

### Appendix 3 - Segments used in the word list

27	a	<p>fe:mina, fam, embra, femmina, fembra, domina, dam, doña, dōnna, infantem, infante, fante, sponsa, esposa, spoza, ispoza, mari:tus, maʁi, mariðo, marito, maridu, marit, mari:t, maðre, maɾə, mari, patre, paðre, paɾə, pari, tata, tata, animalia, omaj, alimaña, nəmaje, be:stia, biʃʃa, pwasō, awem, abe, avi, avi, aw, awikellum, wazo, passerem, paxaro, passero, paseru, pasəre, sarpint, farpe, farpe, arborem, aʁbɐ, aɾʃol, albero, aʁvori, arvuri, abrə, arbul, arbore, silwa, selba, selva, sɛwva, pal, palo, paw, par, kaɥda, kola, koda, kawde, kua, plu:ma, pluma, pjuma, penna, peɲa, panə, pwal, kapillus, kabejo, kapello, kabelu, ʃivja, cavej, kapitia, kaʃeθa, kavettsa, kabese, kap, testa, testa, o:rikla, orexa, orekkja, naso, nas, nariθ, nariʃe, naris, bukka, boka, bokka, gula, gola, a:la, ala, a, alə, ale, san, anima, alma, awmɐ, almɐ, anime, iyaðo, fegato, fikat, lu:na, luna, ste:lla, etwal, estreja, stella, akʷa, aywa, akkwa, agwɐ, age, apə, pluwia, jubja, pjoddʒa, ri:pa:ria, lakum, lak, lago, lago, lagu, layu, ʎak, mare, mar, maʁ, mar, sal, sale, saw, sare, terra, tjera, terra, tsarə, nuvola, nubladu, kalina, kalidjine, kalizēj, nebula, njebla, nebbja, tinjeblas, fu:ma:ta, fumata, fuma:ta, fumase, fumate, kajkia, θeniθa, dia, ʒəna, diurna:ta, xornada, ɟornata, ɟornade, annum, aɲo, anno, aɲ, aɲ, an, lingʷa, leɲgwa, lingwa, manduka:re, mandukar, mandʒare, mɛʒaʁ, mɛʒar, məɲʒa, maɲi:, maɲja:, minka, mwardi, moskar, morsikare, musəga, musəgar, musəya, murseka, sugaʁ, sugar, skujpa, esputar, sputare, sapere, savwaʁ, saber, sabɐʁ, savə:ʁ, save:, kwidar, kodʒitare, kuzitaʁ, kuʒitar, kujda, kuɟeta, pensar, pensare, pɛsaʁ, pɛsar, pənsa, pəsa, tremare, dwaʁmi, via, nəga, neka, anegar, annegare, makta:re, mate, matar, mataʁ, metar, mɛta, maʃa:, pupar, puɲɲare, puɲa, battuere, batʁ, batir, battere, bateʁ, batrə, bate, bati, kaptia:re, fase, kaθar, kattfare, kasaa, kɛsar, kəsa, caʃa:, puxar, pulsare, puʃaʁ, puʃar, pulsa, segar, segare, segaa, siɣar, səya, kortar, koɾtaʁ, kurtar, skortare, skurta, taxar, taʎʎa:re, taʎaʁ, tɛʎar, tɛʎa, taja:, təja, parti:re, paɾtiʁ, partir, partire, paɾʃiʃ, parti:, se:para:re, separar, separare, separaa, siprar, səpəra, separa:, separa, raer, radere, ʁaɐʁ, rawrə, rada:, rade, rasar, rasare, ʁazaʁ, ʁəzar, rəza, rasa:, raskar, ʁaʃkaʁ, ʁɛʃkar, rəska, kosaɾ, kusar, kawa:re, kabar, kavare, kəvaʁ, kəvar, kəba, java:, ekskawa:re, eskabar, skavare, iʃkəvaʁ, iʃkəvar, zjava:, nata:re, nadar, nwotare, nadaʁ, nəðar, nəda, nadar, naviga:re, naʒe, nabegar, navigare, naviɣar, nəviɣar, nəbəga, naviga:, naviga, bolar, volare, voaʁ, vwar, bula, zvolare, zbura, kaminar, kamminare, kəmiɲaʁ, kəmiɲar, kəmina, camina:, maʁʃe, ambita:re, andar, andare, ɛdaʁ, ɛdar, jake:re, jaθer, ɟaʃe:re, ʒawrə, swaʁ, sentar, sɛtar, estar, stare, iʃtar, əsta, sta, jebar, levare, levaʁ, livar, ʎəba, lua, altia:re, alθar, altsare, aʎsa, aʎsar, əlsa, altʃa:, tornar, tornare, toɾnaʁ, toɾnar, turna, turna, xirar, ɟirare, ʒirar, ʒira, birar, virare, virar, bira, kadere, fwaʁ, kaer, kadere, kawrə, ʃjade, tumbar, tōbaʁ, tōbar, tumba, segurar, siguraʁ, siɣurar, serar, seʁa, səraʁ, səra, serare, θerar, serrare, siʁar, appekto:re, apreɾar, ɛpiɾtar, fregar, fregare, frəga, frea, freka, iʃfriɣar, iʃfriɣar, frotar, frettare, frisar, frəsa, lawa:re, lave, laʃar, lavare, levar, lava:, la, estarsir, enxugar, affugare, ɛʃugar, ɛʃuɣar, əʃuga, uska, limpjar, lipar, tirar, tirare, ʃira, tira, trahere, trarre, traze, tradʒe, jakta:re, eʃar, ɟettare, zejtar, xita, lankea:re, lanθar, lanʃare, lɛsa, lɛsar, ʎansa, lanci:, lanʃa:, arankar, arrontʃare, aruɲka, legar, legare, ʎiya, lega, apta:re, atar, ɛtar, kontar, kontare, kōtar, kumta, enumerar, enumerare, enumera, numara, kanta:re, kantar, kantare, kētar, kənta, cantar, kinta, xugar, ɟokare, ʒogaʁ, ʒuɣar, zuga, zuka, flugtwar, fluttuare, flutuuaʁ, flutuar, fluktua, fluctua, fluitare, kolar, kolare, koaʁ, kuar, kuʎa, elar, ɟelare, ʒilar, ʒəla, ɟale, glakia:re, glase, gjaɾʃare, gləsa, glaʃa:, inglakia:re, ingetsa, bruʃare, kɛame, kemaʁ, kremare, kəjmaʁ, kejmawɐ, krəma, flamma:re, flamear, fjammare, flama, arde:re, aɾdɐ, ard er, ardere, aɾdɐʁ, arde, flagra:re, flagɐ, flagrar, flagrare, flagvaʁ, flagrar, inʃendjare, isendʒiar, isɛdjar, ustolare, ustura, tantus, tanto, tant, tanc, alguno, alkuno, awgū, aʎgū, alter, altro, altrə, altri, alt, alius, aw, aʃ, magnus, maɲo, maɲno, grandem, grande, grande, gran, grant, mare, largus, laʁʒ, laɣo, largo, laɣgu, largu, ʎark, lark, larg, lato, latu, lat, amplus, anʃo, ampjo, amplə, krassus, graso, grasso, graʃu, gras, gras, grawis, grabe, gravi, gravi, grav, pe:sant, pesaðo, pesante, pezadu, pizaðu, pəzat, pezant, angustus, angosto, angusto, etəwa, delyaðo, delikato, dewgadɥ, deʃyaðu, dəlikat, dɛwat, destra, galbinus, galben, amarellus, amarijo, ɛmarelu, albus, albo, awvu, alvu, alb, duas, kʷattwor, katɐ, kwatro, kwattro, kwatru, kwatrə, kwat, kwatri, patru, aki, la, aja, əʎa, ai, kwa, kʷando:, kwando, kwan, kwand, kwant</p>
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### Appendix 3 - Segments used in the word list

28	r	embra, fembra, muxer, muŕer, ombre, muxer, muŕer, mariðo, maridu, meriðu, marit, maðre, marə, paðre, parə, paxaro, pasəru, pasəre, serpjente, sirpēti, ſarpe, ſjerpe, serp, ſarpe, berme, vermi, verm, arþol, albero, ævori, arvuri, abrə, par, fruto, frutə, frujt, flor, fjo:re, floare, pər, orexa, oreſə, orejſə, ureſə, nariθ, naris, nərif, gurə, kor, sqare, estreja, istrele, iſtrele, mar, trəvef, tənəbrəs, tfer, djurno, zorn, xornada, nombre, beber, bere, biþer, bəwrə, komer, kumer, mandukar, mandzare, mēzar, morðer, murðer, moskar, morsikare, sugar, kuſpir, eſkupir, eſputar, sputare, saber, səber, konoθer, kuſiſer, kwidar, kužitar, pensar, pensare, pēsar, temer, timer, tremmer, tremək, trimer, dormir, durmir, bibir, viver, biwrə, morir, muŕer, muri, anegar, matar, mətər, uttfidere, pupar, batir, bəter, batrə, kaθar, keſar, puxar, puſar, segar, siyar, kortar, kurtar, taxar, tələr, dibidir, dividiir, ender, fēder, fəndrə, partir, pərtir, separar, separək, sipərər, səpəra, pūzir, raer, ƿeer, rawrə, rasar, ƿəzar, raskar, ƿəfkar, kusar, kabar, kevar, eskabar, iſkevar, nadar, nwtotare, nēðar, nabegar, nəviyar, bolar, volare, vwar, zvolare, zbura, kaminar, kamminare, keminar, andar, ēðar, benir, venire, vir, ekstender, iſtēder, əstendrə, jaθer, dʒafere, zezer, zawrə, ser, sentar, sētar, estar, iſtar, jebar, livar, alθar, aſsar, tornar, turnar, xirar, dʒirare, zirar, zira, birar, virare, virar, bira, torθer, kaer, kadere, keir, tumber, tōbar, tener, tenere, ter, segurar, ſigurar, ſiyurar, ekspremir, əspremə, serar, sərar, θerar, siyar, apretar, ƿirtar, estrepiir, əstrepiə, fregar, frəga, iſfrigar, iſfriyar, frotar, frisar, frəsa, laþar, ləvar, estarsir, enxugar, ēſugar, ēſuyar, limpiar, lipar, tirar, tſira, tira, traze, trezer, trəwrə, eſar, zejtar, lanθar, lēsar, arankar, aruſka, legar, atar, ətər, koser, kuzer, kontar, kōtar, enumerar, enumera, deθir, dizer, kantar, kētar, ludir, xugar, zuyar, flugtwar, flutuar, fluiir, flwir, kolar, kuar, eſkurir, iſkurer, skurðe, korer, kuſer, kurðe, elar, zilar, kumar, kejmare, flamear, arder, ərder, arde, flagrar, flagrar, enθender, isendjar, isēdjar, ənsendjar, otro, owtru, altrə, grande, grēdʒi, grēdi, mare, laryo, largu, ʌark, graso, grafu, gras, gordo, grosu, grosu, grəs, grabe, gravi, gravi, grew, grew, lerdo, korto, kurtu, kurt, brebe, brevi, brevi, brew, estrefjo, istrejtə, iſtrejtə, əstret, djestro, destrə, dēſtru, destrə, dereſjo, direjtə, dret, drept, roſu, bermexo, virməjəlu, berde, verdi, vert, verde, amarijo, ɐmarelu, ɐmerelu, grək, tres, tref, kwatro, kwatru, kwatrə
29	ɐ	femeɐ, femjə, donə, iſpozə, meriðu, biſə, pasəru, səlvə, frutə, kawðə, penə, keþelu, kabesə, keþesə, testə, teſtə, oreſə, orejſə, nərif, bokə, awmə, almə, figədu, fiyēdu, luə, istrele, iſtrele, agwə, ſuvə, təkə, təkə, keſizēj, nəvwə, trəvef, fumasə, sizəf, diə, ɐnu, ligwə, seber, mətər, bəter, keſar, tələr, pərtir, sipərər, ƿeer, ƿəzar, ƿəfkar, kevaɐ, kevar, iſkevaɐ, iſkevar, nēðar, nəviyar, keminaɐ, keminar, zezer, zezer, keir, ƿirtar, ləvar, trezer, ətər, ərder, direjtə, direjtə, ɐmarelu, ɐmerelu, duəs, duəf, ɐki, ɐi
30	œ	fœm, dœm, floɐ, œj, gœl, kœɐ
31	ɛ	femine, efā, pəs, pehō, uttfello, utſjel, sjəkpē, serpe, verm, vjer, vjer, seſwa, səlvə, selve, kōde, plumə, pen, pəpə, pene, pəl, kəbeſə, ʃəvə, tet, testa, testə, teſtə, tſes, teste, ureſə, bōce, kwel, petto, pet, əstəl, stele, mək, sel, tərər, təkə, tərə, tjere, nəvwə, tenəbɐ, trəvef, sjel, tſelo, sɛw, sel, vento, zəl, dʒelo, zɛf, sendrə, tſinize, 'lengə, bəwrə, səþe, kənetɐ, kuneſə, tſesi, teji, fəndere, fəndrə, nēdʒi, mərðere, estendere, ɛtɐ, ɛs, spremere, sere, əstrepiə, strengi, tərðere, təkə, trəwrə, əmpəpə, dʒete, inſendjare, espesə, əspes, spə, grwəs, gwiſef, greve, grevi, bɛf, breve, brevi, brevi, əstret, stret, deſyaðu, sek, sek, sef, deſtro, destrə, dēſtru, deſtra, dret, 'dret, vɛmɛj, bərməſə, vert, vɛɐ, vert, dʒen, ɐmarelu, ɐmerelu, tres, ke, ɛ
32	l	mulierem, mulier, animalia, alimapa, nema:l, awikellum, uttfello, utſjel, peduklus, pedoli, arþol, albero, arbul, silwa, selba, selva, selve, pa:lus, pal, palo, pa:l, flo:rem, floɐ, flor, floɐ, flə, flo:ɐ, flo:r, floare, kola, plu:ma, plym, pluma, plomə, pləm, plumə, pilus, pwal, pelo, pelu, pilu, pəl, pe:l, kapillus, kapello, kabelu, keþelu, o:rikla, orele, okulus, voli, gula, gœl, gola, golə, gōle, ə:lə, el, ala, alə, ale, kolum, kollo, kolu, kwel, alma, almə, so:lem, sol, sole, səl, səl, solikulus, səlɛj, soreli, lu:na, lyn, luna, luə, lən, lune, lunə, ste:lla, etwal, stella, istrele, iſtrele, əstəl, stō:l, stele, pluwia, plui, plu:ɐ, plu:ɐ, ploje, pləje, flu:men, flumi, flumi, flum, lakum, lak, lago, lago, lagu, layu, la:t, sa:lem, sel, sal, sale, sa:l, nu:bilus, nublo, nuvola, nubladu, nu:l, ka:li:ginem, kalina, kaliðine, kalizēj, keſizēj, nebula, njoly, njebla, newlə, tinjeblas, kajlum, sjel, θjelo, tſelo, səl, tſi:l, gelu, zəl, jelo, dʒelo, lingʷa, lōg, ləngwa, lingwa, ligwə, lēu, 'lengə, limbə, pulsa:re, pulsare, pulsa:re, pulsa, ta:lia:re, jugula:re, zygyale, jugula:re, ɕa:vlə, wola:re, vole, bolar, volare, bula, vōle, zvolare, zvola:re, levare, love, levare, levar, livar, leva: lua, alia:re, alθar, altsare, əlsa, altſar, lawa:re, lave, laþar, lavare, ləvar, lava: la, limpida:re, limpiar, lipar, pulsa:re, lankeare, lāse, lanθar, lanſare, lēsa, lēsar, lanci:re, lanſar, liga:re, lie, legar, legare, ləji, lea, lega, lu:dere, ludir, flu:ktua:re, flyktuə, flugtwar, fluttuare, flutuak, flutuar, fluktua, fluctua, fluitare, fluitare, fluere, flye, fluiir, fluire, flwiɐ, flwir, flui, ko:la:re, kule, kolar, kolare, kōle, gelare, zōle, elar, dʒelare, zilar, zəla, dʒale, glakia:re, glase, gləsa, glatſar, inglakia:re, bɔyle, bɔule, flamma:re, flābe, flamear, flagra:re, flagkə, flagrar, flagrare, flagkə, flagrar, ustula:re, ustolare, multus, molto, mol, molc, mult, alguno, alkuno, əlgu, alter, altro, altrə, altri, alt, alius, longus, lō, longo, lungo, lōgu, lō, lunk, lung, largus, larɐ, laryo, largo, larɐ, largu, lark, larg, la:tus, le, lato, latu, lat, amplus, əpl, əplə, lurdus, luɐ, lerdo, lordo, pitulus, pikkolo, pitful, de:lika:tus, deſyaðu, delikato, dəlikat, subtil:lem, sutil, sottile, suptil, suti:l, vermikul, galbinus, galben, amarellus, ɐmarelu, ɐmerelu, albus, albo, alvu, alb, illa:k, la

### Appendix 3 - Segments used in the word list

33	r	mulierem, mui:r, mujere, mulier, mui:r, mujere, mari:tus, marito, mari:t, m̄arit, m̄a:trem, m̄a:dre, mari, patre, p̄a:dre, p̄e:r, pari, passerem, passero, serpentem, serpente, s̄arpen, sarpint, serpens, s̄erpe, wermem, verme, vjer, vjerme, arborem, arbul, arbore, fruk:tus, frutto, frut, frukt, flo:rem, flo:r, o:rikla, orekkja, orele, ureke, nariſe, na:r̄is, kor, kw̄ore, k̄or, ku:r, soreli, ri:wus, rio, riw, riw, ri:pa:ria, rivi:ŋ, mare, mar, ma:r, sare, terra, tjera, terra, t̄er̄a, tjere, tsar̄a, nor, negur̄a, tene:braj, t̄e:nebre, tene:bra:s, t̄e:nebre, đ̄ger, kinerem, ſ̄enere, s̄endr̄a, diurnum, đ̄orno, diurna:ta, đ̄ornata, đ̄ornade, bibere, komedere, manduka:re, morde:re, m̄ordere, mwardi, morsika:re, morsikare, mus̄egar, murseka, su:gere, konspuere, sputere, ski:re, sapere, kogno:skere, konoffere, ko:gita:re, kodžitare, pe:nsa:re, time:re, temere, tremere, tremare, trima:, dormi:re, dormire, durmi, durmi:, dormi, wi:were, vivere, morire, muri:, muri, neka:re, annegare, tu:ta:ri, makta:re, okki:dere, pugna:re, puŋpare, battuere, battere, kaptia:re, kattfare, pulsa:re, pulsare, seka:re, segare, kurta:re, ekskurta:re, skortare, skurtar, skurta, ta:lia:re, ta:lla:re, di:widere, dividere, skindere, ſ̄indere, findere, fendere, partire, partire, p̄arti, parti:, se:para:re, separare, separa:, separa, pungere, punđ̄gere, jugula:re, jugula:re, ra:dere, raer, radere, rawr̄a, rada:, rade, rasar, rasare, r̄eza, rasa:, raskar, r̄eska, fodere, kawa:re, kavare, ekskawa:re, skavare, nata:re, naviga:re, navigare, wola:re, mergere, merđ̄gere, merđ̄ge, ambita:re, andare, weni:re, ekstendere, estendere, jake:re, đ̄gere, sedere, sedere, sedenta:re, sta:re, stare, leva:re, levare, altia:re, altsare, torna:re, tornare, turna, tu:r̄ne, torna:, turna, gya:re, đ̄zirare, đ̄zira:, virare, tork <sup>w</sup> :e:re, t̄orſ̄ere, turser, t̄ors̄a, t̄orſ̄e, kadere, kawr̄a, tene:re, eksprimere, sp̄remere, iſ̄pr̄am̄eſ, iſ̄pr̄amer, esprimi, skreme, serrere, serar, s̄era, serare, ſ̄erar, serrare, appektora:re, stringere, strindž̄ere, ſ̄tr̄iz̄ir, ſ̄tr̄iz̄ir, stringe, strengi:, strindž̄e, frika:re, fregar̄e, froj, frea, freka, frikta:re, frettare, frisar, lawa:re, lavare, tergere, terđ̄gere, ekstergere, ſ̄t̄er̄zi, ſ̄terđ̄ge, eksu:ka:re, affugare, limpida:re, tira:re, tirare, tire, tira:, trahere, trarre, traj, trađ̄ge, impingere, impindž̄ere, jakta:re, đ̄ettare, lankea:re, lanſ̄fare, e:runka:re, arankar, arronſ̄fare, liga:re, legare, apta:re, ko:nsuere, kuf̄ire, komputa:re, kontare, e:numera:re, enumerare, numara, di:kere, dire, eksp̄o:nere, sporre, kanta:re, kantare, lu:dere, joka:re, đ̄okare, flu:ktua:re, fluttuare, fluita:re, fluitare, fluere, fluire, ko:la:re, kolare, ekskurrere, eskurir, skorrere, ſ̄skor̄a, skori:, kurrere, korer, korrere, kor̄a, kori, gela:re, đ̄elare, glakia:re, gjattſ̄fare, inglakia:re, bruſ̄fare, bruza:, krema:re, kremare, kr̄ema, flamma:re, fjammar̄e, arde:re, ardere, flagra:re, flagrare, inkendere, intſ̄endjare, ustula:re, ustolare, ustura, alter, altro, altri, grandem, grande, gran, grant, majjo:rem, largus, largo, lark, larg, krassus, grasso, gras, gras, gurdus, grossus, gr̄osso, gr̄wes, gros, grawis, greve, grav, grevi, lurdus, lordo, kurtus, korto, kurt, brewis, breve, striktus, stretto, stret, strimt, m̄arunt, subtsire, dekstrum, d̄estro, di:re:ktus, destra, dir̄ej̄te, dr̄o:t, 'dret, russus, roxo, rosso, ros, r̄os, vermikulus, vermiλλo, b̄arm̄eλ, rubeus, rubjo, r̄obbjo, rubeo, ruđ̄ge, r̄oſ̄, rojb, wiridem, verde, vert, amarellus, krokeus, kroſ̄ſ̄eo, tre:s, tre, tr̄es, tr̄o:, 'tre:, trej, k <sup>w</sup> attwor, kwattro, kwatri, patru
34	x	muxer, muxer, paxaro, p̄joxo, orexa, oxo, xornada, puxar, taxar, xirar, enxugar, xita, xugar, roxo, bermexo
35	λ	moλλe, muλeſ, muλer, muλe, moλλe, muλeſ, muλer, muλe, useλ, pioλu, poλ, k̄abeλ, oreλe, oreλ̄e, ureλ̄o, oλu, koλ, λun̄o, λak, taλλa:re, taλak, t̄eλar, t̄eλa, λ̄aba, λ̄ansa, λiγa, λoŋ, λark, vermiλλo, v̄eſ̄meλu, viſ̄m̄eλu, b̄arm̄eλ, əλa
36	в	muλeſ, muλeſ, maκi, meſ, peſ, seſp̄a, seſp̄eſi, s̄jeſp̄e, veſ, v̄eſ̄mi, aſ̄b̄v, aſ̄vori, f̄v̄i, floeſ, floſ, flo:ſ, oſ̄ej, koeſ, k̄oſ, ku:ſ, plu:ſ, vu, viw, viu, viſ̄jev, rivi:ſ, meſ, maſ, meſ, teſ, teſe, teſe, te:ſ, teneb̄v, si:ſ, s̄ađ̄v, zuſ, z̄oſna, zuſne, bwak, bebeſ, b̄o:ſ, m̄ež̄aſ, moſ̄v̄i, moſ̄v̄eſ, sugaſ, kuspiſ, savwaſ, sabek, k̄onet̄i, kopeseſ, kuzitaſ, p̄esaſ, temek, k̄eđ̄v, tremek, d̄oſ̄miſ, doſ̄miſ, dwaſ̄mi, viv̄v, viſ̄eſ, muſ̄iſ, moſ̄eſ, muſ̄er, mataſ, ſ̄ks̄iſ, bat̄v, bateſ, kasaſ, puſ̄aſ, segaſ, koſ̄taſ, ekuſ̄te, taλak, đ̄iv̄iđ̄iſ, f̄ađ̄v, f̄eđ̄v, paſ̄tiſ, paſ̄ſ̄iſ, s̄oſ̄ve, separaſ, p̄w̄eđ̄v, p̄už̄iſ, vaſ̄eſ, v̄eſ̄eſ, v̄aze, v̄azaſ, v̄ezar, vaſ̄kaſ, v̄eſ̄kaſ, fw̄iſ, k̄evaſ, iſ̄k̄evaſ, nađ̄aſ, naſ̄iγaſ, voaſ, k̄emiſ̄aſ, maſ̄ſ̄e, eđ̄aſ, v̄oſ̄iſ, viſ, et̄ađ̄v, iſ̄t̄eđ̄v, zeziſ, zezeſ, swaſ, seſ, et̄v, levaſ, tuſ̄ne, toſ̄naſ, ziſ̄e, viſ̄e, t̄oſ̄v̄iſ, ſ̄waſ, t̄oſ̄baſ, t̄oſ̄iſ, teſ, ſ̄iguraſ, ep̄v̄eđ̄v, iſ̄pr̄ameſ, seſa, seſe, siſ̄ar, et̄v̄eđ̄v, f̄v̄eje, f̄v̄ote, tiſ̄e, t̄v̄eſ, kud̄v, enumeſ̄e, diſ, di:ſ, zogaſ, flutuak, flwiſ, koak, iſ̄k̄oveſ, kuſ̄iſ, koſ̄eſ, kuſ̄er, b̄v̄yle, b̄v̄ule, k̄v̄ame, kejm̄ave, aſ̄v̄iſ, aſ̄v̄eſ, flagv̄e, flagv̄aſ, ot̄v, ḡv̄a, ḡv̄a, laſ̄z, laſ̄gu, ḡv̄a, ḡv̄o, ḡv̄ijef, luſ, kuſ, kuſ̄tu, ku:ſ, b̄v̄ef, b̄v̄ef, et̄v̄wa, st̄v̄o:, d̄v̄wat, vu, voſ̄v̄, voſ̄u, v̄eſ̄mej, v̄eſ̄meλu, vuž, veſ, v̄eſ, t̄v̄wa, kaſ̄v
37	i:	mui:r, mui:r, mari:tus, mari:t, fi:ka:tum, ri:wus, ri:pa:ria, rivi:ſ, ka:li:ginem, si:ſ, ſ̄i:l, maſ̄i:, sysi:, ski:re, dormi:re, durmi:, wi:were, muri:, okki:dere, ſ̄es̄i:, teji:, di:widere, parti:re, parti:, neđ̄zi:, ma:ſ̄ſ̄i:, weni:re, viſ̄i:, h̄o:si:, strengi:, pu:si:, lanci:, l̄oji:, di:kere, di:ſ, di:, skori:, subti:lem, suti:l, di:re:ktus, k <sup>w</sup> i:nk <sup>w</sup> e, ekkumhi:k, ibi:, ki:, si:k
38	п	doſ̄na, niſ̄jo, alimaſ̄a, peſ̄a, peſ̄a, p̄ot, aſ̄o, aſ̄, m̄aſ̄za, maſ̄i:, kopeseſ, kupiser, koposi, puſ̄ar, puſ̄pare, puſ̄a, puſ̄i, k̄emiſ̄aſ, k̄emiſ̄ar, viſ̄i:, estreſ̄ir, ſ̄estreſ̄a, ſ̄m̄peſ̄a, oſ̄pi, maſ̄o, maſ̄jo, pekeſ̄o
39	q̄a	q̄oſ̄am̄n̄a, floare, q̄ońađ̄, sq̄are, pl̄ońe, n̄ońapte, kunq̄aſ̄te, t̄ońſ̄e, q̄ońase
40	h	hominem, homo:, peh̄o, u:he:, kin̄h, h̄o:si:, trahere, ekkumhi:k
41	ēj	om̄ēj, om̄ēj, nen̄ēj, nuſ̄v̄ēj, kaliz̄ēj, k̄ēj, n̄ēj
42	ñ	ñ, n̄ñ, k̄oſ̄pye, l̄ñ, n̄ñ
43	ā	āf̄ā, ēf̄ā, seſp̄ā, v̄ā, s̄ađ̄v, ā, l̄āg, m̄āze, p̄āse, f̄āđ̄v, et̄āđ̄v, l̄āse, f̄āte, ſ̄f̄āte, fl̄ābe, ēs̄āđ̄je, ḡv̄ā, ḡv̄ā, āpl, p̄āz̄ā, k̄ā, kom̄ā

### Appendix 3 - Segments used in the word list

44	i	ifēfi, ifēti, sīzeš, ligwē, əstrīzir, əstrīzir, līpar, īsendžiar, īsēdžar, siku
45	ē	ifēfi, ifēti, mēžar, mēžar, ēdar, lēsa, lēsar, kētar, tētu, tētu, grēdži, grēdi, ēfu, kwēdu
46	f	ifēfi, sēfo, utfello, utfel, sēpēfi, fivja, fēs, nariše, pešo, fēatfē, fēlo, fēl, fēr, fēnere, fēnize, fēnufē, noše, matfa:, utfidere, utfide, kattfare, fēsi:, catfa:, pašfīš, fīmine, ma:rtfī:, dʒatfē:re, zəfēa, tərtere, tərte, fē:r, fjade, fira, ešar, lantfare, lantfa:, arrontfare, kušire, zifē, fōte, gjattfjare, glašar, brušare, intfendjare, infindze, mušo, antfo, pittfino, pišful, estrešo, sušiw, seš, deretfo, rōš, krošeo, fīnkwe, fīnk, fīntf, fīne, fē, fēmu:t
47	i	ifēti, išpoze, išpozu, pešfi, avi, sirpēti, vermi, arvuri, pilu, ištrelē, flumi, riw, vint, nojtī, nomi, bišer, minka, kupiser, timer, trimer, siyar, siperar, naviyar, neviyar, ištār, livar, sigurar, siyurar, sizar, epirtar, strindže, išfrigar, išfriyar, impindže, kinta, žilar, ingetsa, infindže, grēdi, gravi, pizađu, pikenu, brevi, ingust, ištrejtu, strimt, virmejlū, verdi, ki, kind
48	p	sponsa, epuz, esposa, spōza, ispoza, išpoze, əspōzə, sponsus, epu, esposo, spōzo, ispozu, išpozu, əspōs, spo:s, patre, peš, padre, pa:dre, paj, parə, pər, pari, piskem, peθ, pešfe, pešfi, pešfi, peš, pes, pešte, pwasō, pēhō, passerem, paxaro, passero, paseru, pasere, peduklus, pu, pjoxo, pidakkjo, pioļu, poļ, pju, pedoli, pədukje, serpentem, sērpā, serpente, serpente, sērpēfi, sirpēti, sərpen, sješpē, sarpint, šarpe, serpens, šjerpe, šerpe, serp, šarpe, pa:lus, pal, palo, paw, pa:l, par, plu:ma, plym, pluma, pjuma, plomə, plom, plume, penna, pen, pena, penē, pēnə, pen, pene, panə, pilus, pwal, pelo, pelu, pilu, pel, pe:l, pər, kapillus, kapello, kapitia, kap, pektus, pi, pešo, petto, peštu, peštu, pit, pet, pjept, apə, pluwia, plūi, pjodžā, plužə, plu:ž, ploje, plōaje, ripa:ria, nqapte, konspuere, kōšpye, kuspīš, kušpir, eskupir, əskupi, skujpa, sputere, esputar, sputare, spuda: sapere, pēnsa:re, pōse, pensar, pensare, pēsar, pēsar, pēsa, pēse, penša:, pōsa, pugnare, pušar, pušare, pušar, kaptia:re, pulsa:re, puse, puxar, pulsare, pušar, pušar, pulsa:, pulsa, parti:re, paštīš, partīr, partire, pašfīš, pērtir, pērti, pō:rti, parti:, se:para:re, separar, separare, separar, siperar, sərərə, separa:, separa, pungere, pwēdš, punžere, pūžir, pūžir, puži, punžē, eksprimere, epēdš, ekspremir, spremere, išpramēš, išpramer, əspremə, esprimi, appektora:re, apretar, epirtar, limpida:re, limpjar, līpar, puse, pu:si:, pulsa:, impingere, impindžere, əmpēnə, impindže, apta:re, komputa:re, ekspō:nere, sporre, spune, paškus, pō, poko, pōko, powku, pōk, pō, pō:k, amplus, āpl, ampjo, amplə, spissus, epe, espeso, spesso, espesu, išpesu, əspes, spē, pe:sant, pēzā, pesađu, pesante, pezadu, pizađu, pəzat, pezant, pezzant, pittitus, pōti, pōtit, piti, 'pittinus, pekepo, pitfjino, pekenu, pikenu, putsin, pitulus, pikkolo, pišful, suptil, drept, patru
49	z	epuz, spōza, ispoza, išpoze, əspōzə, spōzo, ispozu, išpozu, wazo, sīzeš, fīnize, zi, waze, wazar, wəzar, rəza, zjava:, zvolare, zvolar, zbura, zezir, zezir, zezir, zəfēa, traze, trezer, kuzer, kuzi, kō:z, kuzi, dizer, zifē, bruza:, pēzā, pezadu, pizađu, pəzat, pezant
50	ð	maridō, mēridū, madre, padre, iyađu, fiyēđu, morðer, murðer, diviðir, nēðar, toðu, pesađu, pizađu, miuðu, deļađu, deļađu
51	k	sokius, piskem, awikellum, peduklus, pidakkjo, pədukje, fru:ktus, frukt, kađu, kō, kola, koda, kawde, kua, kōw, kōde, kapillus, kabejo, kapello, kabelu, kēšelu, kōbēl, kapitia, kašeθa, kavettsa, kabesē, kēšesē, kap, o:rikla, orekkja, ureke, okulus, əkkjo, bukka, boka, bokka, bokē, bokə, bōk, bukə, kollum, ku, kwejo, kollo, kōlu, kōl, kwel, pektus, kor, kōš, kwōre, kōš, kor, kōr, ku:ž, ku:r, fi:ka:tum, fikat, solikulus, akkwa, lakum, lak, łak, ka:li:ginem, kalina, kalidžine, kalizēž, kēlizēž, kajkia, kajlum, fokum, fwōko, fōk, fu:k, fok, kinerem, komedere, komer, kome, kumer, manduka:re, mandukar, minka, morsika:re, moskar, morsikare, murseka, konspuere, kōšpye, kuspīš, kušpir, eskupir, əskupi, skujpa, ski:re, kogno:skere, kōnetš, konoθer, konoffere, kopēsēš, kupiser, kunēfə, kinōh, koposi, kungafte, ko:gita:re, kūide, kwidar, kodžitare, kuzitar, kuzitar, kujda, kudžeta, kwēdš, neka:re, neka, makta:re, okki:dere, əksiš, uksi, kaptia:re, kaθar, kattfare, kasar, kesar, kōsa, seka:re, kurtare, kortar, kōstāš, kurtar, ekskurta:re, ekurte, skortare, skurta:, skurta, skindere, raskar, wāškar, wēškar, raska, kosa:l, kusar, kawa:re, kabar, kavare, kēvar, kēvar, kēba, ekskawa:re, eskabar, skavare, iškēvar, iškēvar, kaminar, kamminare, kēminar, kēminar, kēmina, ekstendere, ekstender, ekstinde, jake:re, kadere, kaer, kadere, kēir, kawrə, kədə, eksprimere, ekspremir, skreme, appektora:re, frika:re, freka, frika:re, ekstergere, eksu:ka:re, uska, jakta:re, lankea:re, e:runka:re, arankar, aruška, ko:nsuere, kudš, koser, kušire, kuzer, kuzi, kō:z, kuzi, komputa:re, kōte, kontar, kontare, kōtar, kumta, konta:, di:kere, ekspō:nere, kanta:re, kantar, kantare, kētar, kōnta, kinta, joka:re, džokare, zuka, flu:ktua:re, flyktqe, fluktua, kōla:re, kule, kolar, kolare, koar, kuš, kōle, ekskurrere, eskurir, skorrere, iškōvēš, iškurer, əskorə, skorir, skurđe, kurrere, kušir, korer, korere, kōvēš, kušer, korə, kori, kurđe, glakia:re, inglakia:re, krema:re, krame, komar, kremare, kējmare, kējmare, krəma, inkendere, okōē, alkuno, paškus, poko, pōko, powku, pōk, po:k, lunk, łark, lark, krassus, pekepo, pekenu, pikenu, pikkolo, kurtus, kuš, korto, korto, kuštu, kurtu, kurt, ku:ž, kurt, striktus, de:lika:tus, delikato, dēlikat, sikkus, sek, seko, sekko, seku, sek, sek, dekstrum, di:re:ktus, vermikulus, krokeus, krošeo, grōk, katš, kwatro, kwattro, kwatru, kwatrə, kwat, kwatri, sēk, θinko, fīnkwe, siku, sinš, fīnk, ekkumhi:k, aki, kwi, eki, illa:k, ki, ki:, kwi, kjen, kēž, kēž, kwa, ke, ki, kē, kwē:, kē, kwando, kwēđu, kwan, kwand, kwant, kind, kōmā, komo, kome, komu, kōm, kōmē, kum, nek, si:k
52	ts	sots, tšastə, tsarə, altsare, tsine, ingetsa, putsin, subsire

### Appendix 3 - Segments used in the word list

53	a:	ma:trem, ma:dre, pa:dre, nema:l, pa:lus, pa:l, ca:f, na:sus, na:so, na:s, na:ris, a:la, fi:ka:tum, fi:ja:t, ri:pa:ria, la:t, ma:r, sa:lem, sa:l, ka:li:ginem, tene:bra:s, fu:ma:ta, fu:ma:ta, diurna:ta, manduka:re, ma:nja:, morsika:re, cuca:, spuda:, ko:gita:re, pe:nsa:re, pe:nja:, trima:, neka:re, tu:ta:ri, makta:re, ma:fa:, pugna:re, kaptia:re, ca:fa:, pulsa:re, pulsa:, seka:re, sea:, kurta:re, ekskurta:re, skurta:, ta:lia:re, ta:la:re, taja:, se:para:re, separa:, jugula:re, jugula:re, ra:dere, rada:, rasa:, kawa:re, java:, ekskawa:re, zjava:, nata:re, nada:, naviga:re, naviga:, wola:re, zvola:, camina:, ma:rfi:, ambita:re, sedenta:re, senta:, sta:re, sta:, leva:re, leva:, altia:re, altfa:, torna:re, torna:, gyra:re, dgi:ra:, appekto:re, frika:re, frikta:re, lawa:re, lava:, eksu:ka:re, suja:, limpida:re, tira:re, tira:, pulsa:, jakta:re, lankea:re, lanfa:, e:runka:re, liga:re, lea:, apta:re, komputa:re, konta:, e:numera:re, kanta:re, canta:, joka:re, dgi:ja:, flu:ktua:re, fluita:re, ko:la:re, gela:re, glakia:re, gla:fa:, inglakia:re, bruza:, krema:re, flamma:re, flagra:re, ustula:re, la:tus, de:lika:tus, illa:k
54	ēj	mēj, nuvēj, kelizēj, kēj, nēj
55	ṛ	meṛ, vjeṛ, fry, ɔraj, savø:ṛ, mɔri, pɔ:rti, ma:rfi:, fje:ṛ, səraṛ, sere, iʃkurer
56	aj	paj, ɔraj, ajywə, tene:braj, kajkia, kajlum, nwaje, traj, majjo:rem, duaj
57	ε:	pε:r, u:he:, ε:w, tε:ṛ, tε:nebre, tε:nebre, fje:ṛ, kwe:
58	θ	peθ, kaβeθa, nariθ, θjelo, θeniθa, konoθer, kaθar, jaθer, alθar, torθer, θerar, lanθar, deθir, enθender, θinko
59	ej	pejfi, cavej, ovej, seju, pejtu, zejtar, kejmave, istrejtu, trej
60	ej	pejfi, orejla, seju, pejtu, kejmave, iftrejtu, direjte, direjte, virmejlu
61	ō	pwaso, peho, no, tobe, toba, toba, kote, kotar, po, ot, loqu, lo, o
62	ē	sepefi, sirpeti, sjepe, se, vetu, ve, pesa, pesa, kedē, fedē, fedē, istēder, iftēder, setar, efugar, efugar, isēdjar, sek, ne
63	β	arbol, keβelu, kaβeθa, keβese, nuβu, biβer, səβe, laβar
64	ł	sełve, soł, nuβu, zeł, ałsa, ałsar, kuła, flama, ałgū, ał, dełyaðu
65	ɥ	fiɥi, plɥi, nɥi, kuide, tɥe, esɥije, flyktɥe
66	ø:	flø:ṛ, gø:j, fø:t, stø:l, fø:, bø:ṛ, savø:ṛ, kø:z, stø:ṛ, drø:t, dø:, trø:
67	au	kauda, paukus
68	ø	kø, fəvø, løn, fø, pø, dø
69	c	coadə, cavej, ca:f, bocē, noctem, cuca:, ca:fa:, camina:, lanci:, coase, canta:, fluctua, molc, tanc
70	ɛa	teastə, stea, fteafə, bea, zəfɛa, fedɛa, kədə
71	kʲ	okʲ
72	g	gula, gola, golə, gole, gurə, age, lago, 'lengə, pugna:re, segar, segare, jugula:re, naviga:re, naviga:, mergere, gyra:re, stringere, stringe, strengi:, fregare, impingere, lega, xugar, gla:fa:, ingetsa, flagba, alguno, magnus, grandem, gran, gā, grant, longo, lung, largus, larg, gras, gurdus, grossus, grosso, grosu, grwes, gros, grav, grevi, grew, ingust, grək
73	a	am, fwa, bwa, taje, kaze, gka, tka
74	ɔ:	ɔ:m, pɔ:rti, ho:si:
75	ɣ	iyədo, fiyeðu, aywa, ajywə, layu, foyu, musəya, siyar, səya, naviya, neviyar, siyurar, iffriyar, efugar, liya, zuyar, larɣo, dełyaðu, dełyaðu
76	ej	səlej, fveje, vemej
77	kʷ	akʷa, torkʷe:re, kʷattwor, kʷi:nkʷe, kʷis, kʷem, kʷid, kʷando:, kʷo:modo
78	ē:	sē:d
79	dz	dzornade
80	ŋ	aŋ, nŋ, leŋgwa, ma:nja:, pe:nja:, aruŋka, loŋ, ingust, uŋ, fŋkwe, siŋk, 'fŋk
81	gʷ	lingʷa
82	ēu	leu
83	ʃ	ma:nja:, java:, zjava:
84	ē	peše, seše, fet, pwēdē, epwēdē, etwēdē, esādje, komē
85	ū	pūzir, pūjtu, awgū, ałgū, ū
86	ɭ	kosaɭ
87	ç	çavle
88	a:	çavle
89	j	mūjtu
90	œ	okoē, œ
91	ɔ	kofo
92	ēw	new

## Appendix 4 - Word Lists by Language

### Latin

Cognate	IPA	Sounds
I	ego:	ay-g-O
We	no:s	n-O-s
YouPlural	wo:s	w-O-s
YouSingular	tu:	t-U
Woman	fe:mina	f-ai-m-e-n-ah
Woman-Mulier	mulierem	m-u-l-e-ay-r-ay-m
Woman-Domina	domina	d-oh-m-e-n-ah
ManHumanBeing	hominem	h-oh-m-e-n-ay-m
ManHumanBeing-Homo	homo:	h-oh-m-O
Child	infantem	e-n-f-ah-n-t-ay-m
Wife	sponsa	s-p-oh-n-s-ah
Wife-Mulier	mulier	m-u-l-e-ay-r
Husband	mari:tus	m-ah-r-E-t-u-s
Husband-Sponsus	sponsus	s-p-oh-n-s-u-s
Husband-Socius	sokius	s-oh-k-e-u-s
Mother	ma:trem	m-A-t-r-ay-m
Father	patre	p-ah-t-r-ay
Father-Tata	tata	t-ah-t-ah
Animal	animalia	ah-n-e-m-ah-l-e-ah
Animal-Bestia	be:stia	b-ai-s-t-e-ah
Fish-Piskem	piskem	p-e-s-k-ay-m
Bird-Avem	awem	ah-w-ay-m
Bird-Avicellum	awikellum	ah-w-e-k-ay-l-l-u-m
Bird-Passerem	passerem	p-ah-s-s-ay-r-ay-m
Louse	peduklus	p-ay-d-u-k-l-u-s
Snake	serpentem	s-ay-r-p-ay-n-t-ay-m
Snake-Serpens	serpens	s-ay-r-p-ay-n-s
Worm	wermem	w-ay-r-m-ay-m
Tree	arborem	ah-r-b-oh-r-ay-m
Forest	silwa	s-e-l-w-ah
Stick	pa:lus	p-A-l-u-s
Fruit	fru:ktus	f-r-U-k-t-u-s
Flower	flo:rem	f-l-O-r-ay-m
Tail	ka:da	k-au_diphthong-d-ah
Feather	plu:ma	p-l-U-m-ah
Feather-Penna	penna	p-ay-n-n-ah
Hair	pilus	p-e-l-u-s
Hair-Capillus	kapillus	k-ah-p-e-l-l-u-s
Head	kapitia	k-ah-p-e-t-e-ah
Head-Testa	testa	t-ay-s-t-ah
Ear	o:rikla	O-r-e-k-l-ah
Eye	okulus	oh-k-u-l-u-s
Nose	na:sus	n-A-s-u-s
Mouth	bukka	b-u-k-k-ah
Mouth-Gula	gula	j-u-l-ah
Wing	a:la	A-l-ah
Neck	kollum	k-oh-l-l-u-m
Breast	sinus	s-e-n-u-s
Breast-Pectus	pektus	p-ay-k-t-u-s
Heart	kor	k-oh-r
Heart-Anima	anima	ah-n-e-m-ah
Liver	fi:ka:tum	f-E-k-A-t-u-m
Sun	so:lem	s-O-l-ay-m



## Appendix 4 - Word Lists by Language

Sun-Solliculus	solikulus	s-oh-l-e-k-u-l-u-s
Moon	lu:na	l-U-n-ah
Star	ste:lla	s-t-ai-l-l-ah
Water	ak <sup>w</sup> a	ah-kw-ah
Rain	pluwia	p-l-u-w-e-ah
River	flu:men	f-l-U-m-ay-n
River-Rivus	ri:wus	r-E-w-u-s
River-Riparia	ri:pa:ria	r-E-p-A-r-e-ah
Lake	lakum	l-ah-k-u-m
Sea	mare	m-ah-r-ay
Salt	sa:lem	s-A-l-ay-m
Earth	terra	t-ay-r-r-ah
Cloud	nu:be:s	n-U-b-ai-s
Cloud-Secondary	nu:bilus	n-U-b-e-l-u-s
Fog	ka:li:ginem	k-A-l-E-g-e-n-ay-m
Fog-Nebula	nebula	n-ay-b-u-l-ah
Fog-Tenebrae	tene:braj	t-ay-n-ai-b-r-aj_diphthong
Fog-Tenebras	tene:bra:s	t-ay-n-ai-b-r-A-s
Fog-Fumata	fu:ma:ta	f-U-m-A-t-ah
Fog-Caecia	kajkia	k-aj_diphthong-k-e-ah
Sky	kajlum	k-aj_diphthong-l-u-m
Wind	wentum	w-ay-n-t-u-m
Ice	gelu:	g-ay-l-U
Smoke	fu:mus	f-U-m-u-s
Fire-Focus	fokum	f-oh-k-u-m
Ash	kinerem	k-e-n-ay-r-ay-m
Night	noctem	n-oh-tya-t-ay-m
Day	die:s	d-e-ai-s
Day-Diurnus	diurnum	d-e-u-r-n-u-m
Day-Diurnata	diurna:ta	d-e-u-r-n-A-t-ah
Year	annum	ah-n-n-u-m
Name-Nomen	no:men	n-O-m-ay-n
Name-Nominem	no:minem	n-O-m-e-n-ay-m
Tongue	ling <sup>w</sup> a	l-e-n-gw-ah
ToDrink	bibere	b-e-b-ay-r-ay
ToEat	komedere	k-oh-m-ay-d-ay-r-ay
ToEat-Manducare	manduka:re	m-ah-n-d-u-k-A-r-ay
ToBite	morde:re	m-oh-r-d-ai-r-ay
ToBite-Morsicare	morsika:re	m-oh-r-s-e-k-A-r-ay
ToSuck	su:gere	s-U-g-ay-r-ay
ToSpit	konspuere	k-oh-n-s-p-u-ay-r-ay
ToSpit-Sputare	sputere	s-p-u-t-ay-r-ay
ToKnow	ski:re	s-k-E-r-ay
ToKnow-Sapere	sapere	s-ah-p-ay-r-ay
ToKnow-Cognoscere	kogno:skere	k-oh-g-n-O-s-k-ay-r-ay
ToThink	ko:gita:re	k-O-g-e-t-A-r-ay
ToThink-Pensare	pe:nsa:re	p-ai-n-s-A-r-ay
ToFear	time:re	t-e-m-ai-r-ay
ToFear-Tremere	tremere	t-r-ay-m-ay-r-ay
ToSleep	dormi:re	d-oh-r-m-E-r-ay
ToLive	wi:were	w-E-w-ay-r-ay
ToKill	neka:re	n-ay-k-A-r-ay
ToKill-Tutari	tu:ta:ri	t-U-t-A-r-e
ToKill-Mactare	makta:re	m-ah-k-t-A-r-ay
ToKill-Occidere	okki:dere	oh-k-k-E-d-ay-r-ay
ToFight	pugna:re	p-u-j-n-A-r-ay
ToFight-Battuere	battuere	b-ah-t-t-u-ay-r-ay

## Appendix 4 - Word Lists by Language

ToHunt-Captiare	kaptia:re	k-ah-p-t-e-A-r-ay
ToHit	pulsa:re	p-u-l-s-A-r-ay
ToCut	seka:re	s-ay-k-A-r-ay
ToCut-Curtare	kurta:re	k-u-r-t-A-r-ay
ToCut-Excurtare	ekskurta:re	ay-k-s-k-u-r-t-A-r-ay
ToCut-Taliare	ta:lia:re	t-A-l-e-A-r-ay
ToSplit	di:widere	d-E-w-e-d-ay-r-ay
ToSplit-Scindere	skindere	s-k-e-n-d-ay-r-ay
ToSplit-Findere	findere	f-e-n-d-ay-r-ay
ToSplit-Partire	parti:re	p-ah-r-t-E-r-ay
ToSplit-Separare	se:para:re	s-ai-p-ah-r-A-r-ay
ToStab	pungere	p-u-n-g-ay-r-ay
ToStab-Iugulare	jugula:re	jg-u-g-u-l-A-r-ay
ToScratch	ra:dere	r-A-d-ay-r-ay
ToDig	fodere	f-oh-d-ay-r-ay
ToDig-Cavare	kawa:re	k-ah-w-A-r-ay
ToDig-Excavare	ekskawa:re	ay-k-s-k-ah-w-A-r-ay
ToSwim	nata:re	n-ah-t-A-r-ay
ToSwim-Navigare	naviga:re	n-ah-v-e-j-A-r-ay
ToFly	wola:re	w-oh-l-A-r-ay
ToWalk-Mergere	mergere	m-ay-r-j-ay-r-ay
ToWalk-Ambitare	ambita:re	ah-m-b-e-t-A-r-ay
ToCome	weni:re	w-ay-n-E-r-ay
ToLieAsInABed	ekstendere	ay-k-s-t-ay-n-d-ay-r-ay
ToLieAsInABed-lacere	jake:re	jg-ah-k-ai-r-ay
ToSit	sede:re	s-ay-d-ai-r-ay
ToSit-Sedentare	sedenta:re	s-ay-d-ay-n-t-A-r-ay
ToStand	sta:re	s-t-A-r-ay
ToStand-Levare	leva:re	l-ay-v-A-r-ay
ToStand-Altiare	altia:re	ah-l-t-e-A-r-ay
ToTurnIntransitive	torna:re	t-oh-r-n-A-r-ay
ToTurnIntransitive-Gyrare	gyra:re	j-eeh-r-A-r-ay
ToTurnIntransitive-Torquere	tork <sup>w</sup> e:re	t-oh-r-kw-ai-r-ay
ToFall	kadere	k-ah-d-ay-r-ay
ToHold	tene:re	t-ay-n-ai-r-ay
ToSqueeze	eksprimere	ay-k-s-p-r-e-m-ay-r-ay
ToSqueeze-Serrere	serrere	s-ay-r-r-ay-r-ay
ToSqueeze-Serare	serare	s-ay-r-ah-r-ay
ToSqueeze-Appectorare	appektora:re	ah-p-p-ay-k-t-oh-r-A-r-ay
ToSqueeze-Stringere	stringere	s-t-r-e-n-j-ay-r-ay
ToRub	frika:re	f-r-e-k-A-r-ay
ToRub-Frictare	frikta:re	f-r-e-k-t-A-r-ay
ToWash	lawa:re	l-ah-w-A-r-ay
ToWipe	tergere	t-ay-r-g-ay-r-ay
ToWipe-Extergere	ekstergere	ay-k-s-t-ay-r-g-ay-r-ay
ToWipe-Exsucare	eksu:ka:re	ay-k-s-U-k-A-r-ay
ToWipe-Limpidare	limpida:re	l-e-m-p-e-d-A-r-ay
ToPull	tira:re	t-e-r-A-r-ay
ToPull-Pulsare	pulsa:re	p-u-l-s-A-r-ay
ToPull-Trahere	trahere	t-r-ah-h-ay-r-ay
ToPush	impingere	e-m-p-e-n-j-ay-r-ay
ToThrow	jakta:re	jg-ah-k-t-A-r-ay
ToThrow-Lanceare	lankea:re	l-ah-n-k-ay-A-r-ay
ToThrow-Eruncare	e:runka:re	ai-r-u-n-k-A-r-ay
ToTie	liga:re	l-e-g-A-r-ay
ToTie-Aptare	apta:re	ah-p-t-A-r-ay
ToSew	ko:nsuere	k-O-n-s-u-ay-r-ay

## Appendix 4 - Word Lists by Language

ToCount	komputa:re	k-oh-m-p-u-t-A-r-ay
ToCount-Enumerare	e:numera:re	ai-n-u-m-ay-r-A-r-ay
ToSay	di:kere	d-E-k-ay-r-ay
ToSay-Exponere	ekspo:nere	ay-k-s-p-O-n-ay-r-ay
ToSing-AncestralClass	kanta:re	k-ah-n-t-A-r-ay
ToPlay-Ludere	lu:dere	l-U-d-ay-r-ay
ToPlay-Jiocare	joka:re	jg-oh-k-A-r-ay
ToFloat	flu:ktua:re	f-l-U-k-t-u-A-r-ay
ToFloat-Fluitare	fluita:re	f-l-u-e-t-A-r-ay
ToFlow	fluere	f-l-u-ay-r-ay
ToFlow-Colare	ko:la:re	k-O-l-A-r-ay
ToFlow-Excurre	ekskurrere	ay-k-s-k-u-r-r-ay-r-ay
ToFlow-Currere	kurrere	k-u-r-r-ay-r-ay
ToFreeze	gela:re	g-ay-l-A-r-ay
ToFreeze-Glaciare	glakia:re	g-l-ah-k-e-A-r-ay
ToFreeze-Inglaciare	inglakia:re	e-n-g-l-ah-k-e-A-r-ay
ToBurn-Cremare	krema:re	k-r-ay-m-A-r-ay
ToBurn-Flammare	flamma:re	f-l-ah-m-m-A-r-ay
ToBurn-Ardere	arde:re	ah-r-d-ai-r-ay
ToBurn-Flagrare	flagra:re	f-l-ah-g-r-A-r-ay
ToBurn-Incendere	inkendere	e-n-k-ay-n-d-ay-r-ay
ToBurn-AncestralClass8	ustula:re	u-s-t-u-l-A-r-ay
All	omne:s	oh-m-n-ai-s
All-Totus	to:tus	t-O-t-u-s
Many	multus	m-u-l-t-u-s
Many-Tantus	tantus	t-ah-n-t-u-s
Few	paukus	p-au_diphthong-k-u-s
Other	alter	ah-l-t-ay-r
Other-Alius	alius	ah-l-e-u-s
Big	magnus	m-ah-j-n-u-s
Big-Grandem	grandem	j-r-ah-n-d-ay-m
Big-Majjorem	majjo:rem	m-aj_diphthong-jg-O-r-ay-m
Long-Longum	longus	l-oh-n-g-u-s
Long-Largum	largus	l-ah-r-j-u-s
Wide	la:tus	l-A-t-u-s
Wide-Amplum	amplus	ah-m-p-l-u-s
Thick	krassus	k-r-ah-s-s-u-s
Thick-Spissum	spissus	s-p-e-s-s-u-s
Thick-Gurdum	gurdus	j-u-r-d-u-s
Thick-Grossum	grossus	j-r-oh-s-s-u-s
Heavy	grawis	g-r-ah-w-e-s
Heavy-Lurdus	lurdus	l-u-r-d-u-s
Heavy-Pesant	pe:sant	p-ai-s-ah-n-t
Small	pittitus	p-e-t-t-e-t-u-s
Small-Pittinus	'pittinus	p-e-t-t-e-n-u-s
Small-Pitulus	pitulus	p-e-t-u-l-u-s
Short	kurtus	k-u-r-t-u-s
Short-Brevis	brewis	b-r-ay-w-e-s
Narrow	angustus	ah-n-g-u-s-t-u-s
Narrow-Strictus	striktus	s-t-r-e-k-t-u-s
Thin	minu:tus	m-e-n-U-t-u-s
Thin-Delicatus	de:lika:tus	d-ai-l-e-k-A-t-u-s
Thin-Subtilis	subti:lem	s-u-b-t-E-l-ay-m
Dry	sikkus	s-e-k-k-u-s
Right-Dextrem	dekstrum	d-ay-k-s-t-r-u-m
Right-Directus	di:re:ktus	d-E-r-ai-k-t-u-s
Red	russus	r-u-s-s-u-s

## Appendix 4 - Word Lists by Language

Red-Vermiculus	vermikulus	v-ay-r-m-e-k-u-l-u-s
Red-Rubeus	rubeus	r-u-b-ay-u-s
Green	wiridem	w-e-r-e-d-ay-m
Yellow	galbinus	g-ah-l-b-e-n-u-s
Yellow-Amarellus	amarellus	ah-m-ah-r-ay-l-l-u-s
Yellow-Croceus	krokeus	k-r-oh-k-ay-u-s
White	albus	ah-l-b-u-s
One	u:num	U-n-u-m
Two-Duos	duo:s	d-u-O-s
Two-Duae	duaj	d-u-aj_diphthong
Two-Duas	duas	d-u-ah-s
Three	tre:s	t-r-ai-s
Four	k <sup>w</sup> attwor	kw-ah-t-t-w-oh-r
Five	k <sup>w</sup> i:nk <sup>w</sup> e	kw-E-n-kw-ay
Here	ekkumhi:k	ay-k-k-u-m-h-E-k
There	illa:k	e-l-l-A-k
There-Ibi	ibi:	e-b-E
Who-Qui	k <sup>w</sup> is	kw-e-s
Who-Quem	k <sup>w</sup> em	kw-ay-m
What	k <sup>w</sup> id	kw-e-d
When-Quando	k <sup>w</sup> ando:	kw-ah-n-d-O
How-Quomodo	k <sup>w</sup> o:modo	kw-O-m-oh-d-oh
Not	no:n	n-O-n
Not-Nec	nek	n-ay-k
And-Et	et	ay-t
And-Si	si:k	s-E-k

## French

Cognate	IPA	Sounds
I	ʒə	gzah-aah
We	nu	n-u
YouPlural	vu	v-u
YouSingular	ty	t-eeh
Woman	fam	f-ah-m
Woman-Domina	dam	d-ah-m
ManHumanBeing	ɔm	euh-m
ManHumanBeing-Homo	õ	oon
Child	ãfã	NasalA-f-NasalA
Wife	epuz	ay-p-u-zz
Husband	maʁi	m-ah-rr-e
Husband-Sponsus	epu	ay-p-u
Mother	meʁ	m-ay-rr
Father	peʁ	p-ay-rr
Animal	omaj	oh-m-ah-jg
Fish-Pescion	pwasõ	p-w-ah-s-on
Bird-Avicellum	wazo	w-ah-zz-oh
Louse	pu	p-u
Snake	seʁpã	s-ay-rr-p-NasalA
Worm	veʁ	v-ay-rr
Tree	akbʁ	ah-rr-b-rr
Stick	pal	p-ah-l
Fruit	fʁɥi	f-rr-eu-e
Flower	flœʁ	f-l-OpenMidNearFrontRounded-rr
Tail	kø	k-uu
Feather	plym	p-l-eeh-m

## Appendix 4 - Word Lists by Language

Feather-Penna	pɛn	p-eh-n
Hair	pwal	p-w-ah-l
Hair-Capillus	ʃəvø	shh-aah-v-uu
Head	ʃəvɛ	shh-aah-v-eh
Head-Testa	tɛt	t-eh-t
Ear	oʊɛj	oh-rr-ej_diphthong
Eye	œj	OpenMidNearFrontRounded-jg
Nose	ne	n-ay
Mouth	buʃ	b-u-shh
Mouth-Gula	gœl	g-OpenMidNearFrontRounded-l
Wing	el	ay-l
Neck	ku	k-u
Breast	sɛ	s-ehn
Breast-Pectus	pi	p-e
Heart	kœɾ	k-OpenMidNearFrontRounded-rr
Heart-Anima	am	a-m
Liver	fwa	f-w-a
Sun-Soliculus	sœlj	s-euh-l-eh_diphthong
Moon	lyn	l-eeh-n
Star	etwal	ay-t-w-ah-l
Water	o	oh
Rain	plɥi	p-l-eu-e
River-Rivus	ɾy	rr-eeh
River-Riparia	ɾivjɛɾ	rr-e-v-jg-ay-rr
Lake	lak	l-ah-k
Sea	mœɾ	m-eh-rr
Salt	sɛl	s-eh-l
Earth	tɛɾ	t-ay-rr
Cloud	ny	n-eeh
Fog-Nebula	njɔly	n-jg-euh-l-eeh
Fog-Tenebras	tenebɾ	t-ay-n-eh-b-rr
Fog-Fumata	fyme	f-eeh-m-ay
Sky	sjɛl	s-jg-eh-l
Wind	vɑ	v-NasalA
Ice	zɛl	gzah-eh-l
Fire-Focus	fø	f-uu
Ash	sɑdɾ	s-NasalA-d-rr
Night	nɥi	n-eu-e
Day-Diurnus	zux	gzah-u-rr
Day-Diurnata	zuxne	gzah-u-rr-n-ay
Year	ɑ	NasalA
Name-Nomen	nɔ̃	n-oon
Tongue	lɑg	l-NasalA-g
ToDrink	bwɑɾ	b-w-a-rr
ToEat-Manducare	mɑ̃ʒɛ	m-NasalA-gzah-ay
ToBite	moɾdɾ	m-oh-rr-d-rr
ToSuck	syɛ	s-eeh-s-ay
ToSpit	kɔspye	k-oon-s-p-eeh-ay
ToKnow-Sapere	savwɑɾ	s-ah-v-w-ah-rr
ToKnow-Cognoscere	kɔnɛɾ	k-euh-n-eh-t-rr
ToThink	kɥide	k-eu-e-d-ay
ToThink-Pensare	pɑsɛ	p-NasalA-s-ay
ToFear-Tremere	kœdɾ	k-rr-ehn-d-rr
ToSleep	dɔɾmiɾ	d-euh-rr-m-e-rr
ToLive	vivɾ	v-e-v-rr
ToDie	muɾiɾ	m-u-rr-e-rr
ToKill	nwaje	n-w-aj_diphthong-ay

## Appendix 4 - Word Lists by Language

ToKill-Tutari	tʰɛ	t-eu-ay
ToKill-Mactare	mate	m-ah-t-ay
ToKill-Occidere	ɔksɪɾ	euh-k-s-e-rr
ToFight-Battuere	batɾ	b-ah-t-rr
ToHunt-Captiare	ʃase	shh-ah-s-ay
ToHit	puse	p-u-s-ay
ToCut	sje	s-jg-ay
ToCut-Excurtare	ekurte	ay-k-u-rr-t-ay
ToCut-Taliare	tɔje	t-a-jg-ay
ToSplit-Scindere	sɛde	s-ehnn-d-ay
ToSplit-Findere	fɛdɾ	f-NasalA-d-rr
ToSplit-Partire	partɪɾ	p-ah-rr-t-e-rr
ToSplit-Separare	səvrɛ	s-aah-v-rr-ay
ToStab	pwɛdɾ	p-w-ehnn-d-rr
ToStab-Iugulare	ʒyɣyle	gzah-eeh-g-eeh-l-ay
ToScratch-Rasare	ʁaze	rr-a-zz-ay
ToDig	fwɪɾ	f-w-e-rr
ToSwim-Navigare	naʒɛ	n-ah-gzah-ay
ToFly	vole	v-oh-l-ay
ToWalk	ʃəmine	shh-aah-m-e-n-ay
ToWalk-Marcher	marʃɛ	m-ah-rr-shh-ay
ToCome	vənɪɾ	v-aah-n-e-rr
ToLieAsInABed	etɛdɾ	ay-t-NasalA-d-rr
ToLieAsInABed-Iacere	ʒɛzɪɾ	gzah-ay-zz-e-rr
ToSit	swaɾ	s-w-ah-rr
ToStand	ɛtɾ	eh-t-rr
ToStand-Levare	lɔve	l-aah-v-ay
ToStand-Altiare	ose	oh-s-ay
ToTurnIntransitive	turɛne	t-u-rr-n-ay
ToTurnIntransitive-Gyrate	ʒɪɾɛ	gzah-e-rr-ay
ToTurnIntransitive-AncestralClass3	vɪɾɛ	v-e-rr-ay
ToTurnIntransitive-Torque	tɔɾdɾ	t-euh-rr-d-rr
ToFall	ʃwaɾ	shh-w-ah-rr
ToFall-Tumbare	tɔbe	t-on-b-ay
ToHold	tənɪɾ	t-aah-n-e-rr
ToSqueeze	epɾɛdɾ	ay-p-rr-ehnn-d-rr
ToSqueeze-Serare	sɛɾɛ	s-ay-rr-ay
ToSqueeze-Stringere	ɛtɾɛdɾ	ay-t-rr-ehnn-d-rr
ToRub	frɛje	f-rr-eh_diphthong-ay
ToRub-Frictare	frɔte	f-rr-oh-t-ay
ToWash	lave	l-ah-v-ay
ToWipe-Exsucare	esɥije	ay-s-eu-e-jg-ay
ToPull	tɪɾɛ	t-e-rr-ay
ToPull-Pulsare	puse	p-u-s-ay
ToPull-Trahare	tɾɛɾ	t-rr-eh-rr
ToThrow	ʒɔte	gzah-aah-t-ay
ToThrow-Lanceare	lase	l-NasalA-s-ay
ToTie	lie	l-e-ay
ToSew	kudɾ	k-u-d-rr
ToCount	kɔte	k-on-t-ay
ToCount-Enumerare	enumɛɾɛ	ay-n-u-m-ay-rr-ay
ToSay	dɪɾ	d-e-rr
ToSing-AncestralClass	ʃate	shh-NasalA-t-ay
ToPlay-Jiocare	ʒwe	gzah-w-ay
ToFloat	flyktɛ	f-l-eeh-k-t-eu-ay
ToFlow	flye	f-l-eeh-ay
ToFlow-Colare	kule	k-u-l-ay

## Appendix 4 - Word Lists by Language

ToFlow-Currere	kuxix	k-u-rr-e-rr
ToFreeze	zøle	gzah-aah-l-ay
ToFreeze-Glaciare	glase	g-l-ah-s-ay
ToBurn-Brojan	bɣyle	b-rr-eeh-l-ay
ToBurn-Cremare	kɣame	k-rr-ah-m-ay
ToBurn-Flammare	flābe	f-l-NasalA-b-ay
ToBurn-Ardere	akɔɣ	ah-rr-d-rr
ToBurn-Flagrare	flagɣe	f-l-ah-g-rr-ay
ToBurn-Incendere	ēsādje	ehnn-s-NasalA-d-jg-ay
All-Totus	tu	t-u
Many	mu	m-u
Some	okœ	oh-k-uuh
Few	pø	p-uu
Other	otɣ	oh-t-rr
Big-Grandem	gɣā	g-rr-NasalA
Long-Longum	lō	l-oon
Long-Largum	laɣɔ	l-ah-rr-gzah
Wide	le	l-ay
Wide-Amplum	āpl	NasalA-p-l
Thick	gɣa	g-rr-a
Thick-Spissum	epe	ay-p-ay
Thick-Grossum	gɣo	g-rr-oh
Heavy	gɣijef	g-rr-e-jg-eh-f
Heavy-Lurdus	luɣ	l-u-rr
Heavy-Pesant	pəzā	p-aah-zz-NasalA
Small	pəti	p-aah-t-e
Short	kuɣ	k-u-rr
Short-Brevis	bɣef	b-rr-eh-f
Narrow-Strictus	etɣwa	ay-t-rr-w-ah
Thin	məny	m-aah-n-eeh
Thin-Delicatus	du:ɔe:	d-U-gzah-ai
Dry	sek	s-eh-k
Right-Directus	dɣwat	d-rr-w-ah-t
Red	ɣu	rr-u
Red-Vermiculus	vɣmɛj	v-eh-rr-m-eh_diphthong
Red-Rubeus	ɣuɔ	rr-u-gzah
Green	vɣ	v-ay-rr
Yellow	ɔon	gzah-oh-n
One	œ	uuh
Two-Duos	dø	d-uu
Three	tɣwa	t-rr-w-a
Four	katɣ	k-ah-t-rr
Five	sɛk	s-ehn-k
Here	isi	e-s-e
There	la	l-ah
Who-Qui	ki	k-e
What	kwa	k-w-ah
When-Quando	kā	k-NasalA
How-Quomodo	kɔmā	k-euh-m-NasalA
Not	nō	n-oon
Not-Nec	ni	n-e
And-Et	e	ay

## Spanish

Cognate	IPA	Sounds
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## Appendix 4 - Word Lists by Language

I	jo	VdPalatalFricative-oh
We	nos	n-oh-s
YouPlural	bos	b-oh-s
YouSingular	tu	t-u
YouSingular-VostramMercedem	usted	u-s-t-ay-d
Woman	embra	ay-m-b-er-ah
Woman-Mulier	muxer	m-u-xha-ay-er
Woman-Domina	dona	d-oh-VdPalatalNasal-ah
ManHumanBeing	ombre	oh-m-b-er-ay
Child	infante	e-n-f-ah-n-t-ay
Child-Ninnus	nipo	n-e-VdPalatalNasal-oh
Wife	esposa	ay-s-p-oh-s-ah
Wife-Mulier	muxer	m-u-xha-ay-er
Husband	mariño	m-ah-er-e-dd-oh
Husband-Sponsus	esposo	ay-s-p-oh-s-oh
Mother	maðre	m-ah-dd-er-ay
Father	paðre	p-ah-dd-er-ay
Father-Tata	tata	t-ah-t-ah
Animal	alimajna	ah-l-e-m-ah-VdPalatalNasal-ah
Fish-Piskem	peθ	p-ay-th
Bird-Avem	abe	ah-b-ay
Bird-Passerem	paxaro	p-ah-xha-ah-er-oh
Louse	pjoxo	p-jg-oh-xha-oh
Snake	serpiente	s-ay-er-p-jg-ay-n-t-ay
Snake-Serpens	sjerpe	s-jg-ay-er-p-ay
Worm	berme	b-ay-er-m-ay
Tree	arbol	ah-er-bb-oh-l
Forest	selba	s-ay-l-b-ah
Stick	palo	p-ah-l-oh
Fruit	fruto	f-er-u-t-oh
Flower	flor	f-l-oh-er
Tail	kola	k-oh-l-ah
Feather	pluma	p-l-u-m-ah
Feather-Penna	peña	p-ay-VdPalatalNasal-ah
Hair	pelo	p-ay-l-oh
Hair-Capillus	kabejo	k-ah-b-ay-VdPalatalFricative-oh
Head	kaβeθa	k-ah-bb-ay-th-ah
Ear	orexa	oh-er-ay-xha-ah
Eye	oxo	oh-xha-oh
Nose	nasos	n-ah-s-oh
Nose-Nares	nariθ	n-ah-er-e-th
Mouth	boka	b-oh-k-ah
Mouth-Gula	gola	j-oh-l-ah
Wing	ala	ah-l-ah
Neck	kwejo	k-w-ay-VdPalatalFricative-oh
Breast	seno	s-ay-n-oh
Breast-Pectus	pefθo	p-ay-ts-oh
Heart-Anima	alma	ah-l-m-ah
Liver	iyado	e-juh-ah-dd-oh
Sun	sol	s-oh-l
Moon	luna	l-u-n-ah
Star	estreja	ay-s-t-er-ay-VdPalatalFricative-ah
Water	aywa	ah-juh-w-ah
Rain	jubja	VdPalatalFricative-u-b-jg-ah
River-Rivus	rio	r-e-oh
Lake	lago	l-ah-j-oh
Sea	mar	m-ah-er



## Appendix 4 - Word Lists by Language

Salt	sal	s-ah-l
Earth	tjera	t-jg-ay-r-ah
Cloud	nube	n-u-b-ay
Cloud-Secondary	nublo	n-u-b-l-oh
Fog	kalina	k-ah-l-e-n-ah
Fog-Nebula	njebla	n-jg-ay-b-l-ah
Fog-Tenebras	tinjeblas	t-e-n-jg-ay-b-l-ah-s
Fog-Fumata	fumata	f-u-m-ah-t-ah
Sky	θjelo	th-jg-ay-l-oh
Wind	bjento	b-jg-ay-n-t-oh
Ice	jelo	VdPalatalFricative-ay-l-oh
Smoke	umo	u-m-oh
Fire-Focus	fwego	f-w-ay-g-oh
Ash-Cinisia	θeniθa	th-ay-n-c-th-ah
Night	noŋe	n-oh-ts-ay
Day	dia	d-e-ah
Day-Diurnus	djurno	d-jg-u-er-n-oh
Day-Diurnata	xornada	xha-oh-er-n-ah-d-ah
Year	apo	ah-VdPalatalNasal-oh
Name-Nominem	nombre	n-oh-m-b-er-ay
Tongue	lengwa	l-ay-nya-g-w-ah
ToDrink	beber	b-ay-b-ay-er
ToEat	komer	k-oh-m-ay-er
ToEat-Manducare	mandukar	m-ah-n-d-u-k-ah-er
ToBite	morðer	m-oh-er-dd-ay-er
ToBite-Morsicare	moskar	m-oh-s-k-ah-er
ToSpit-Exconspuere	eskupir	ay-s-k-u-p-e-er
ToSpit-Sputare	esputar	ay-s-p-u-t-ah-er
ToKnow-Sapere	saber	s-ah-b-ay-er
ToKnow-Cognoscere	konoθer	k-oh-n-oh-th-ay-er
ToThink	kwidar	k-w-e-d-ah-er
ToThink-Pensare	pensar	p-ay-n-s-ah-er
ToFear	temer	t-ay-m-ay-er
ToFear-Tremere	tremer	t-er-ay-m-ay-er
ToSleep	dormir	d-oh-er-m-e-er
ToLive	bibir	b-e-b-e-er
ToDie	morir	m-oh-er-e-er
ToKill-Adnecare	anegar	ah-n-ay-g-ah-er
ToKill-Mactare	matar	m-ah-t-ah-er
ToFight	pupar	p-u-VdPalatalNasal-ah-er
ToFight-Battuere	batir	b-ah-t-e-er
ToHunt-Captiare	kaθar	k-ah-th-ah-er
ToHit	puxar	p-u-xha-ah-er
ToCut	segar	s-ay-j-ah-er
ToCut-Curtare	kortar	k-oh-er-t-ah-er
ToCut-Taliare	taxar	t-ah-xha-ah-er
ToSplit	dibidir	d-e-b-e-d-e-er
ToSplit-Findere	ender	ay-n-d-ay-er
ToSplit-Partire	partir	p-ah-er-t-e-er
ToSplit-Separare	separar	s-ay-p-ah-er-ah-er
ToScratch	raer	r-ah-ay-er
ToScratch-Rasare	rasar	r-ah-s-ah-er
ToScratch-Rasicare	raskar	r-ah-s-k-ah-er
ToDig-Cavare	kabar	k-ah-b-ah-er
ToDig-Excavare	eskabar	ay-s-k-ah-b-ah-er
ToSwim	nadar	n-ah-d-ah-er
ToSwim-Navigare	nabegar	n-ah-b-ay-g-ah-er

## Appendix 4 - Word Lists by Language

ToFly	bolar	b-oh-l-ah-er
ToWalk	kaminar	k-ah-m-e-n-ah-er
ToWalk-Ambitare	andar	ah-n-d-ah-er
ToCome	benir	b-ay-n-e-er
ToLieAsInABed	ekstender	ay-k-s-t-ay-n-d-ay-er
ToLieAsInABed-lacere	jaθer	VdPalatalFricative-ah-th-ay-er
ToSit	ser	s-ay-er
ToSit-Sedentare	sentar	s-ay-n-t-ah-er
ToStand	estar	ay-s-t-ah-er
ToStand-Levare	jebar	VdPalatalFricative-ay-b-ah-er
ToStand-Altiare	alθar	ah-l-th-ah-er
ToTurnIntransitive	tornar	t-oh-er-n-ah-er
ToTurnIntransitive-Gyrare	xirar	xha-e-er-ah-er
ToTurnIntransitive-AncestralClass3	birar	b-e-er-ah-er
ToTurnIntransitive-Torque	torθer	t-oh-er-th-ay-er
ToFall	kaer	k-ah-ay-er
ToFall-Tumbare	tumbar	t-u-m-b-ah-er
ToHold	tener	t-ay-n-ay-er
ToHold-Segurar	segurar	s-ay-g-u-er-ah-er
ToSqueeze	ekspremir	ay-k-s-p-er-ay-m-e-er
ToSqueeze-Serrere	serar	s-ay-r-ah-er
ToSqueeze-Serare	θerar	th-ay-r-ah-er
ToSqueeze-Appetorare	apretar	ah-p-er-ay-t-ah-er
ToSqueeze-Stringere	estrepir	ay-s-t-er-ay-VdPalatalNasal-e-er
ToRub	fregar	f-er-ay-g-ah-er
ToRub-Frictare	frotar	f-er-oh-t-ah-er
ToRub-Frictiare	frisar	f-r-e-s-ah-er
ToWash	laßar	l-ah-bb-ah-er
ToWipe-Extergere	estarsir	ay-s-t-ah-er-s-e-er
ToWipe-Exsucare	enxugar	ay-n-xha-u-g-ah-er
ToWipe-Limpidare	limpiar	l-e-m-p-jg-ah-er
ToPull	tirar	t-e-er-ah-er
ToPull-Pulsare	puxar	p-u-xha-ah-er
ToThrow	eñar	ay-ts-ah-er
ToThrow-Lanceare	lanθar	l-ah-n-th-ah-er
ToThrow-Eruncare	arankar	ah-r-ah-n-k-ah-er
ToTie	legar	l-ay-g-ah-er
ToTie-Aptare	atar	ah-t-ah-er
ToSew	koser	k-oh-s-ay-er
ToCount	kontar	k-oh-n-t-ah-er
ToCount-Enumerare	enumerar	ay-n-u-m-ay-er-ah-er
ToSay	deθir	d-ay-th-e-er
ToSing-AncestralClass	kantar	k-ah-n-t-ah-er
ToPlay-Ludere	ludir	l-u-d-e-er
ToPlay-Jiocare	xugar	xha-u-j-ah-er
ToFloat	flugtwar	f-l-u-g-t-w-ah-er
ToFlow	fluir	f-l-u-e-er
ToFlow-Colare	kolar	k-oh-l-ah-er
ToFlow-Excurrere	eskurir	ay-s-k-u-r-e-er
ToFlow-Currere	korer	k-oh-r-ay-er
ToFreeze	elar	ay-l-ah-er
ToBurn-Cremare	kemar	k-ay-m-ah-er
ToBurn-Flammare	flamear	f-l-ah-m-ay-ah-er
ToBurn-Ardere	arder	ah-er-d-ay-er
ToBurn-Flagrare	flagrar	f-l-ah-g-er-ah-er
ToBurn-Incendere	enθender	ay-n-th-ay-n-d-ay-er
All-Totus	todo	t-oh-d-oh

## Appendix 4 - Word Lists by Language

Many	muŋfo	m-u-ts-oh
Many-Tantus	tanto	t-ah-n-t-oh
Some	alguno	ah-l-j-u-n-oh
Few	poko	p-oh-k-oh
Other	otro	oh-t-er-oh
Big	mapo	m-ah-VdPalatalNasal-oh
Big-Grandem	grande	g-er-ah-n-d-ay
Long-Longum	longo	l-oh-n-j-oh
Long-Largum	laryo	l-ah-er-juh-oh
Wide	lato	l-ah-t-oh
Wide-Amplum	anŋfo	ah-n-ts-oh
Thick	graso	g-er-ah-s-oh
Thick-Spissum	espeso	ay-s-p-ay-s-oh
Thick-Gurdum	gordo	g-oh-er-d-oh
Heavy	grabe	g-er-ah-b-ay
Heavy-Lurdus	lerdo	l-ay-er-d-oh
Heavy-Pesant	pesaðo	p-ay-s-ah-dd-oh
Small-Pittinus	pekepo	p-ay-k-ay-VdPalatalNasal-oh
Short	korto	k-oh-er-t-oh
Short-Brevis	brebe	b-er-ay-b-ay
Narrow	angosto	ah-n-g-oh-s-t-oh
Narrow-Strictus	estreŋfo	ay-s-t-er-ay-ts-oh
Thin	menudo	m-ay-n-u-d-oh
Thin-Delicatus	delyaðo	d-ay-l-juh-ah-dd-oh
Thin-Subtilis	sutil	s-u-t-e-l
Dry	seko	s-ay-k-oh
Right-Dextrem	djestro	d-jg-ay-s-t-er-oh
Right-Directus	dereŋfo	d-ay-er-ay-ts-oh
Red	roxo	r-oh-xha-oh
Red-Vermiculus	bermexo	b-ay-er-m-ay-xha-oh
Red-Rubeus	rubjo	r-u-b-jg-oh
Green	berde	b-ay-er-d-ay
Yellow-Amarellus	amarijo	ah-m-ah-er-e-VdPalatalFricative-oh
White	albo	ah-l-b-oh
One	uno	u-n-oh
Two-Duos	dos	d-oh-s
Three	tres	t-er-ay-s
Four	kwatro	k-w-ah-t-er-oh
Five	θinko	th-e-n-k-oh
Here	aki	ah-k-e
There	aja	ah-VdPalatalFricative-ah
There-Adlbi	ai	ah-e
Who-Quem	kjen	k-jg-ay-n
What	ke	k-ay
When-Quando	kwando	k-w-ah-n-d-oh
How-Quomodo	komo	k-oh-m-oh
Not	no	n-oh
Not-Nec	ni	n-e
And-Et	i	e

## Italian

Cognate	IPA	Sounds
I	io	e-oh
We	no:i	n-O-e
YouPlural	vo:i	v-O-e

## Appendix 4 - Word Lists by Language

YouSingular	tu	t-u
Woman	femmina	f-ay-m-m-e-n-ah
Woman-Mulier	moʎʎe	m-oh-yuh-yuh-ay
Woman-Domina	donna	d-euh-n-n-ah
ManHumanBeing-Homo	womo	w-euh-m-oh
Child	fante	f-ah-n-t-ay
Child-Ninnus	nino	n-e-n-oh
Wife	spoza	s-p-euh-zz-ah
Wife-Mulier	moʎʎe	m-oh-yuh-yuh-ay
Husband	marito	m-ah-r-e-t-oh
Husband-Sponsus	spoza	s-p-euh-zz-oh
Husband-Socius	soʎfo	s-euh-ts-oh
Mother	ma:dre	m-A-d-r-ay
Father	pa:dre	p-A-d-r-ay
Father-Tata	tata	t-ah-t-ah
Animal-Bestia	bijʃa	b-e-shh-shh-ah
Fish-Piskem	peʃʃe	p-ay-shh-shh-ay
Bird-Avicellum	utʃello	u-t-ts-eh-l-l-oh
Bird-Passerem	passero	p-ah-s-s-ay-r-oh
Louse	pidokkjo	p-e-d-euh-k-k-jg-oh
Snake	serpente	s-ay-r-p-ay-n-t-ay
Snake-Serpens	serpe	s-eh-r-p-ay
Worm	verme	v-ay-r-m-ay
Tree	albero	ah-l-b-ay-er-oh
Forest	selva	s-ay-l-v-ah
Stick	palo	p-ah-l-oh
Fruit	frutto	f-r-u-t-t-oh
Flower	fjo:re	f-jg-O-er-ay
Tail	koda	k-oh-d-ah
Feather	pjuma	p-jg-u-m-ah
Feather-Penna	penna	p-ay-n-n-ah
Hair	pelo	p-ay-l-oh
Hair-Capillus	kapello	k-ah-p-ay-l-l-oh
Head	kavetsta	k-ah-v-ay-t-t-s-ah
Head-Testa	testa	t-eh-s-t-ah
Ear	orekkja	oh-r-ay-k-k-jg-ah
Eye	okkjo	euh-k-k-jg-oh
Nose	na:so	n-A-s-oh
Nose-Nares	nariʃe	n-ah-r-e-ts-ay
Mouth	bokka	b-oh-k-k-ah
Mouth-Gula	gola	j-oh-l-ah
Wing	ala	ah-l-ah
Neck	kollo	k-oh-l-l-oh
Breast	seno	s-ay-n-oh
Breast-Pectus	petto	p-eh-t-t-oh
Heart	kwore	k-w-euh-r-ay
Heart-Anima	alma	ah-l-m-ah
Liver	fegato	f-ay-g-ah-t-oh
Sun	sole	s-oh-l-ay
Moon	luna	l-u-n-ah
Star	stella	s-t-ay-l-l-ah
Water	akkwa	ah-k-k-w-ah
Rain	pjoddʒa	p-jg-oh-d-VdPalatoAlveolarSibilant-ah
River	fjume	f-jg-u-m-ay
River-Rivus	rio	r-e-oh
Lake	lago	l-ah-g-oh
Sea	mare	m-ah-r-ay

## Appendix 4 - Word Lists by Language

Salt	sale	s-ah-l-ay
Earth	terra	t-eh-r-r-ah
Cloud	nube	n-u-b-ay
Cloud-Secondary	nuvola	n-u-v-oh-l-ah
Fog	kalidžine	k-ah-l-e-VdPalatoAlveolarSibilant-e-n-ay
Fog-Nebula	nebbja	n-ay-b-b-jg-ah
Fog-Tenebrae	te:nebre	t-Eh-n-ay-b-r-ay
Fog-Tenebras	te:nebre	t-Eh-n-ay-b-r-ay
Fog-Fumata	fuma:ta	f-u-m-A-t-ah
Sky	ʃfelo	ts-eh-l-oh
Wind	vento	v-eh-n-t-oh
Ice	đželo	VdPalatoAlveolarSibilant-eh-l-oh
Smoke	fumo	f-u-m-oh
Fire-Focus	fwoko	f-w-euh-k-oh
Ash	ʃfenero	ts-ay-n-ay-r-ay
Night	notte	n-euh-t-t-ay
Day	di	d-e
Day-Diurnus	đžorno	VdPalatoAlveolarSibilant-oh-r-n-oh
Day-Diurnata	đžornata	VdPalatoAlveolarSibilant-oh-r-n-ah-t-ah
Year	anno	ah-n-n-oh
Name-Nomen	no:me	n-O-m-ay
Tongue	lingwa	l-e-n-g-w-ah
ToDrink	bere	b-ay-er-ay
ToEat-Manducare	mandžare	m-ah-n-VdPalatoAlveolarSibilant-ah-er-ay
ToBite	mordere	m-euh-r-d-ay-r-ay
ToBite-Morsicare	morsikare	m-oh-r-s-e-k-ah-er-ay
ToSpit-Sputare	sputare	s-p-u-t-ah-er-ay
ToKnow-Sapere	sapere	s-ah-p-ay-r-ay
ToKnow-Cognoscere	konoʃfere	k-oh-n-oh-shh-shh-ay-r-ay
ToThink	kodžitare	k-oh-VdPalatoAlveolarSibilant-e-t-ah-r-ay
ToThink-Pensare	pensare	p-ay-n-s-ah-er-ay
ToFear	temere	t-ay-m-ay-r-ay
ToFear-Tremere	tremare	t-r-ay-m-ah-r-ay
ToSleep	dormire	d-oh-r-m-e-r-ay
ToLive	vivere	v-e-v-ay-r-ay
ToDie	morire	m-oh-r-e-r-ay
ToKill-Adnecare	annegare	ah-n-n-ay-g-ah-r-ay
ToKill-Occidere	utʃidere	u-t-ts-e-d-ay-er-ay
ToFight	punjare	p-u-VdPalatalNasal-VdPalatalNasal-ah-r-ay
ToFight-Battuere	battere	b-ah-t-t-ay-r-ay
ToHunt-Captiare	katʃare	k-ah-t-ts-ah-r-ay
ToHit	pulsare	p-u-l-s-ah-r-ay
ToCut	segare	s-ay-j-ah-r-ay
ToCut-Excurtare	skortare	s-k-oh-r-t-ah-r-ay
ToCut-Taliare	taʎʎa:re	t-ah-yuh-yuh-A-r-ay
ToSplit	dividere	d-e-v-e-d-ay-r-ay
ToSplit-Scindere	ʃindere	shh-e-n-d-ay-r-ay
ToSplit-Findere	fendere	f-eh-n-d-ay-r-ay
ToSplit-Partire	partire	p-ah-r-t-e-r-ay
ToSplit-Separare	separare	s-ay-p-ah-r-ah-r-ay
ToStab	pundžere	p-u-n-VdPalatoAlveolarSibilant-ay-r-ay
ToStab-Iugulare	jugula:re	jg-u-j-u-l-A-r-ay
ToScratch	radere	r-ah-d-ay-r-ay
ToScratch-Rasare	rasare	r-ah-s-ah-r-ay
ToDig-Cavare	kavare	k-ah-v-ah-r-ay
ToDig-Excavare	skavare	s-k-ah-v-ah-r-ay
ToSwim	nwotare	n-w-oh-t-ah-er-ay

## Appendix 4 - Word Lists by Language

ToSwim-Navigare	navigare	n-ah-v-e-g-ah-r-ay
ToFly	volare	v-oh-l-ah-er-ay
ToFly-Exvolare	zvolare	zz-v-oh-l-ah-er-ay
ToWalk	kamminare	k-ah-m-m-e-n-ah-er-ay
ToWalk-Mergere	merdzere	m-eh-r-VdPalatoAlveolarSibilant-ay-r-ay
ToWalk-Ambitare	andare	ah-n-d-ah-r-ay
ToCome	venire	v-ay-n-e-er-ay
ToLieAsInABed	estendere	ay-s-t-eh-n-d-ay-r-ay
ToLieAsInABed-lacere	dʒaʃe:re	VdPalatoAlveolarSibilant-ah-ts-ai-er-ay
ToSit	sedere	s-ay-d-ay-r-ay
ToStand	stare	s-t-ah-r-ay
ToStand-Levare	levare	l-ay-v-ah-r-ay
ToStand-Altiare	altsare	ah-l-VAlveolarSibilantAffricate-ah-r-ay
ToTurnIntransitive	tornare	t-oh-r-n-ah-r-ay
ToTurnIntransitive-Gyrate	dʒirare	VdPalatoAlveolarSibilant-e-r-ah-er-ay
ToTurnIntransitive-AncestralClass3	virare	v-e-r-ah-er-ay
ToTurnIntransitive-Torquere	tɔrfere	t-euh-r-ts-ay-r-ay
ToFall	kadere	k-ah-d-ay-er-ay
ToHold	tenere	t-ay-n-ay-er-ay
ToSqueeze	spremere	s-p-r-eh-m-ay-r-ay
ToSqueeze-Serare	serrare	s-ay-r-r-ah-r-ay
ToSqueeze-Stringere	strindzere	s-t-r-e-n-VdPalatoAlveolarSibilant-ay-r-ay
ToRub	fregare	f-r-ay-j-ah-r-ay
ToRub-Frictare	frettare	f-r-ay-t-t-ah-r-ay
ToWash	lavare	l-ah-v-ah-r-ay
ToWipe	terdzere	t-eh-r-VdPalatoAlveolarSibilant-ay-r-ay
ToWipe-Exsucare	aʃfugare	ah-shh-shh-u-g-ah-r-ay
ToPull	tirare	t-e-r-ah-r-ay
ToPull-Pulsare	pulsare	p-u-l-s-ah-r-ay
ToPull-Trahere	trarre	t-r-ah-r-r-ay
ToPush	impindzere	e-m-p-e-n-VdPalatoAlveolarSibilant-ay-r-ay
ToThrow	dʒettare	VdPalatoAlveolarSibilant-ay-t-t-ah-r-ay
ToThrow-Lanceare	lanʃare	l-ah-n-ts-ah-r-ay
ToThrow-Eruncare	arrontʃare	ah-r-r-oh-n-ts-ah-r-ay
ToTie	legare	l-ay-g-ah-r-ay
ToSew	kuffire	k-u-ts-e-r-ay
ToCount	kontare	k-oh-n-t-ah-r-ay
ToCount-Enumerare	enumerare	ay-n-u-m-ay-r-ah-r-ay
ToSay	dire	d-e-r-ay
ToSay-Exponere	sporre	s-p-oh-r-r-ay
ToSing-AncestralClass	kantare	k-ah-n-t-ah-r-ay
ToPlay-Jiocare	dʒokare	VdPalatoAlveolarSibilant-oh-k-ah-r-ay
ToFloat	fluttuare	f-l-u-t-t-u-ah-r-ay
ToFloat-Fluitare	fluitare	f-l-u-e-t-ah-r-ay
ToFlow	fluire	f-l-u-e-r-ay
ToFlow-Colare	kolare	k-oh-l-ah-r-ay
ToFlow-Excurrere	skorrere	s-k-oh-r-r-ay-r-ay
ToFlow-Currere	korrere	k-oh-r-r-ay-r-ay
ToFreeze	dʒelare	VdPalatoAlveolarSibilant-ay-l-ah-r-ay
ToFreeze-Glaciare	gʒatʃʃare	g-jg-ah-t-ts-jg-ah-r-ay
ToBurn-Brojan	bruʃʃare	b-r-u-ts-ah-r-ay
ToBurn-Cremare	kremare	k-r-ay-m-ah-r-ay
ToBurn-Flammare	fjammare	f-jg-ah-m-m-ah-r-ay
ToBurn-Ardere	ardere	ah-r-d-ay-r-ay
ToBurn-Flagrare	flagrare	f-l-ah-g-r-ah-r-ay
ToBurn-Incendere	intʃendjare	e-n-ts-eh-n-d-jg-ah-r-ay
ToBurn-AncestralClass8	ustolare	u-s-t-oh-l-ah-r-ay

## Appendix 4 - Word Lists by Language

All	oppi	oh-VdPalatalNasal-VdPalatalNasal-e
All-Totus	tutto	t-u-t-t-oh
Many	molto	m-oh-l-t-oh
Many-Tantus	tanto	t-ah-n-t-oh
Some	alkuno	ah-l-k-u-n-oh
Few	poko	p-euh-k-oh
Other	altro	ah-l-t-r-oh
Big	mappo	m-ah-VdPalatalNasal-VdPalatalNasal-oh
Big-Grandem	grande	g-r-ah-n-d-ay
Long-Longum	lungo	l-u-n-g-oh
Long-Largum	largo	l-ah-r-g-oh
Wide	lato	l-ah-t-oh
Wide-Amplum	ampjo	ah-m-p-jg-oh
Thick	grasso	g-r-ah-s-s-oh
Thick-Spissum	spesso	s-p-ay-s-s-oh
Thick-Grossum	grosso	j-r-euh-s-s-oh
Heavy	grave	g-r-eh-v-ay
Heavy-Lurdus	lordo	l-oh-r-d-oh
Heavy-Pesant	pesante	p-ay-s-ah-n-t-ay
Small-Pittinus	pittino	p-e-t-ts-e-n-oh
Small-Pitulus	pikkolo	p-e-k-k-oh-l-oh
Short	korto	k-oh-r-t-oh
Short-Brevis	breve	b-r-eh-v-ay
Narrow	angusto	ah-n-g-u-s-t-oh
Narrow-Strictus	stretto	s-t-r-ay-t-t-oh
Thin	minuto	m-e-n-u-t-oh
Thin-Delicatus	delikato	d-ay-l-e-k-ah-t-oh
Thin-Subtilis	sottile	s-oh-t-t-e-l-ay
Dry	sekko	s-ay-k-k-oh
Right-Dextrem	destro	d-eh-s-t-r-oh
Right-Directus	destra	d-eh-s-t-r-ah
Red	rosso	r-oh-s-s-oh
Red-Vermiculus	vermiġġo	v-ay-r-m-e-yuh-yuh-oh
Red-Rubeus	rōbbjo	r-euh-b-b-jg-oh
Green	verde	v-ay-r-d-ay
Yellow-Croceus	kroġġeo	k-r-oh-ts-ay-oh
White	albo	ah-l-b-oh
One	uno	u-n-oh
Two-Duae	due	d-u-ay
Three	tre	t-r-ay
Four	kwattro	k-w-ah-t-t-r-oh
Five	ġinġkwe	ts-e-nya-k-w-ay
Here	kwi	k-w-e
There	la	l-ah
There-Ibi	vi	v-e
Who-Qui	ki	k-e
What	ke	k-ay
When-Quando	kwando	k-w-ah-n-d-oh
How-Quomodo	kome	k-oh-m-ay
Not	non	n-oh-n
Not-Nec	ne	n-ay
And-Et	e	ay

## Brazilian Portuguese

Cognate	IPA	Sounds
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## Appendix 4 - Word Lists by Language

I	ew	ay-w
We	nojs	n-euh-jg-s
YouPlural	vojs	v-euh-jg-s
YouSingular	tu	t-u
YouSingular-VostramMercedem	vose	v-oh-s-ay
Woman	femeɐ	f-ay-m-ay-ahh
Woman-Mulier	muʎeɐ	m-u-yuh-ay-rr
Woman-Domina	done	d-oh-n-ahh
ManHumanBeing	omej	oh-m-nasal_diphthong_portuguese1
Child	ifeyji	een-f-ahn-ts-e
Child-Ninnus	neněj	n-ay-n-nasal_diphthong_portuguese1
Wife	ispoza	e-s-p-oh-zz-ah
Wife-Mulier	muʎeɐ	m-u-yuh-ay-rr
Husband	maridu	m-ah-er-e-d-u
Husband-Sponsus	ispozu	e-s-p-oh-zz-u
Mother	mēj	m-nasal_diphthong_portuguese2
Father	paj	p-aj_diphthong
Father-Tata	tata	t-ah-t-ah
Animal-Bestia	biʃe	b-e-shh-ahh
Fish-Piskem	pejʃi	p-ej_diphthong-shh-e
Bird-Avem	avi	ah-v-e
Bird-Passerem	pasɛru	p-ah-s-ahh-er-u
Louse	pioʎu	p-e-oh-yuh-u
Snake	seɐpɛjji	s-ay-rr-p-ehn-ts-e
Worm	veɐmi	v-ay-rr-m-e
Tree	akvori	ah-rr-v-oh-er-e
Forest	sewva	s-eh-w-v-ah
Stick	paw	p-ah-w
Fruit	frute	f-er-u-t-ahh
Flower	floɐ	f-l-oh-rr
Tail	kawde	k-ah-w-d-ahh
Feather-Penna	pene	p-ay-n-ahh
Hair	pelu	p-ay-l-u
Hair-Capillus	kabelu	k-ah-b-ay-l-u
Head	kabese	k-ah-b-ay-s-ahh
Head-Testa	teste	t-eh-s-t-ahh
Ear	oreʎe	oh-er-ay-yuh-ahh
Eye	oʎu	oh-yuh-u
Nose-Nares	naris	n-ah-er-e-s
Mouth	bokɐ	b-oh-k-ahh
Wing	a	ah
Neck	kolu	k-euh-l-u
Breast	seju	s-ej_diphthong-u
Breast-Pectus	pejtu	p-ej_diphthong-t-u
Heart	kɔɐ	k-euh-rr
Heart-Anima	awme	ah-w-m-ahh
Liver	figedu	f-e-g-ahh-d-u
Sun	sow	s-euh-w
Moon	lue	l-u-ahh
Star	istrele	e-s-t-er-ay-l-ahh
Water	agwe	ah-g-w-ahh
Rain	ʃuve	shh-u-v-ahh
River	flumi	f-l-u-m-e
River-Rivus	ɛiw	rr-e-w
Lake	lagu	l-ah-g-u
Sea	maɐ	m-ah-rr
Salt	saw	s-ah-w



## Appendix 4 - Word Lists by Language

Earth	teɾɐ	t-ay-rr-ahh
Cloud	nuvẽj	n-u-v-nasal_diphthong_portuguese1
Cloud-Secondary	nubladu	n-u-b-l-ah-d-u
Fog	kalizẽj	k-ah-l-e-gzah-nasal_diphthong_portuguese1
Fog-Nebula	nevɥɐ	n-eh-v-w-ahh
Fog-Fumata	fumase	f-u-m-ah-s-ahh
Sky	sɛw	s-eh-w
Wind	vẽtu	v-ehn-t-u
Smoke	fumu	f-u-m-u
Fire-Focus	fogu	f-oh-g-u
Ash-Cinisia	sizɛj	s-een-zz-ahh-shh
Night	nojti	n-øj_diphthong-t-eee
Day	diɐ	d-e-ahh
Day-Diurna	zɔɾna	gzah-euh-rr-n-ah
Year	ɛnu	ahh-n-u
Name-Nomen	nomi	n-oh-m-e
Tongue	liɣwɐ	l-een-g-w-ahh
ToDrink	bebeɾ	b-ay-b-ay-rr
ToEat	kome	k-oh-m-ay
ToEat-Manducare	mẽzɔɾ	m-ahn-gzah-ah-rr
ToBite	moɾdeɾ	m-oh-rr-d-ay-rr
ToBite-Morsicare	musɔga	m-u-s-aah-g-ah
ToSuck	sugɔɾ	s-u-g-ah-rr
ToSpit	kuspiɾ	k-u-s-p-e-rr
ToKnow-Sapere	sabeɾ	s-ah-b-ay-rr
ToKnow-Cognoscere	koɾneseɾ	k-oh-VdPalatalNasal-ay-s-ay-rr
ToThink	kuɾitaɾ	k-u-gzah-e-t-ah-rr
ToThink-Pensare	pẽsaɾ	p-ehn-s-ah-rr
ToFear	temeɾ	t-ay-m-ay-rr
ToFear-Tremere	tremeɾ	t-er-ay-m-ay-rr
ToSleep	doɾmiɾ	d-oh-rr-m-e-rr
ToLive	viveɾ	v-e-v-ay-rr
ToDie	moɾeɾ	m-oh-rr-ay-rr
ToKill-Mactare	mataɾ	m-ah-t-ah-rr
ToFight-Battuere	bateɾ	b-ah-t-ay-rr
ToHunt-Captiare	kasɔɾ	k-ah-s-ah-rr
ToHit	puɟɔɾ	p-u-shh-ah-rr
ToCut	segaɾ	s-ay-g-ah-rr
ToCut-Curtare	koɾtaɾ	k-oh-rr-t-ah-rr
ToCut-Taliare	taɟɔɾ	t-ah-yuh-ah-rr
ToSplit	dʒividʒiɾ	VdPalatoAlveolarSibilant-e-v-e-VdPalatoAlveolarSibilant-e-rr
ToSplit-Findere	fẽdeɾ	f-ehn-d-ay-rr
ToSplit-Partire	paɾtʃiɾ	p-ah-rr-ts-e-rr
ToSplit-Separare	separaɾ	s-ay-p-ah-er-ah-rr
ToStab	pũziɾ	p-ooo-gzah-e-rr
ToScratch	kaɛɾ	rr-ah-ay-rr
ToScratch-Rasare	kaɾaɾ	rr-ah-zz-ah-rr
ToScratch-Rasicare	kaɟkaɾ	rr-ah-shh-k-ah-rr
ToScratch-Coctiare	koɾaɟ	k-oh-s-ah-VdRetroflexApproximant
ToDig-Cavare	keɥaɾ	k-ahh-v-ah-rr
ToDig-Excavare	ʃkeɥaɾ	e-shh-k-ahh-v-ah-rr
ToSwim	nadaɾ	n-ah-d-ah-rr
ToSwim-Navigare	naviɣaɾ	n-ah-v-eee-juh-ah-rr
ToFly	voaɾ	v-oh-ah-rr
ToWalk	kɛmiɾɔɾ	k-ahh-m-e-VdPalatalNasal-ah-rr
ToWalk-Ambitare	ẽdaɾ	ahn-d-ah-rr
ToCome	viɾ	v-e-rr

## Appendix 4 - Word Lists by Language

ToLieAsInABed	istēdeɤ	e-s-t-ehn-d-ay-rr
ToLieAsInABed-lacere	ʒeɤeɤ	gzah-ahh-zz-ay-rr
ToSit	seɤ	s-ay-rr
ToSit-Sedentare	sētar	s-ehn-t-ah-er
ToStand	iftar	eee-shh-t-ah-er
ToStand-Levare	levaɤ	l-ay-v-ah-rr
ToStand-Altiare	alsa	ah-ssha-s-ah
ToTurnIntransitive	toɤnaɤ	t-oh-rr-n-ah-rr
ToTurnIntransitive-Gyrate	ʒiraɤ	gzah-e-er-ah-er
ToTurnIntransitive-AncestralClass3	viɤaɤ	v-e-er-ah-er
ToTurnIntransitive-Torque	turser	t-u-r-s-ay-r
ToFall	kēir	k-ahh-e-er
ToFall-Tumbare	tōbaɤ	t-on-b-ah-rr
ToHold	teɤ	t-ay-rr
ToHold-Segurar	siɤuraɤ	s-eee-g-u-er-ah-rr
ToSqueeze	ifɤrəmeɤ	e-shh-p-r-aah-m-ay-rr
ToSqueeze-Serrere	seɤa	s-ay-rr-ah
ToSqueeze-Serare	siɤaɤ	s-eee-rr-ah-er
ToSqueeze-Appetorare	ɤpiɤtar	ahh-p-eee-er-t-ah-er
ToSqueeze-Stringere	əftɤɤʒir	aah-shh-t-r-een-gzah-e-r
ToRub-Exfricare	ifɤfrigaɤ	eee-shh-f-er-eee-g-ah-er
ToWash	levaɤ	l-ahh-v-ah-er
ToWipe-Exsucare	ēfugaɤ	ehn-shh-u-g-ah-er
ToWipe-Limpidare	liɤpaɤ	l-een-p-ah-er
ToPull	ʒiɤa	ts-e-er-ah
ToPull-Pulsare	puɤfaɤ	p-u-shh-ah-er
ToPull-Trahere	traze	t-er-ah-zz-ay
ToThrow	ʒejtar	gzah-ej_diphthong-t-ah-er
ToThrow-Lanceare	lesa	l-ahn-s-ah
ToTie-Aptare	ɤtar	ahh-t-ah-er
ToSew	kuzer	k-u-zz-ay-er
ToCount	kōtar	k-on-t-ah-er
ToCount-Enumerare	enumerar	ay-n-u-m-ay-er-ah-er
ToSay	dizer	d-e-zz-ay-er
ToSing-AncestralClass	kētar	k-ahn-t-ah-er
ToPlay-Jiocare	ʒogaɤ	gzah-oh-g-ah-rr
ToFloat	flutuɤaɤ	f-l-u-t-u-ah-rr
ToFlow	flwiɤ	f-l-w-e-rr
ToFlow-Colare	koɤaɤ	k-oh-ah-rr
ToFlow-Excurrere	ifɤkoɤeɤ	e-shh-k-oh-rr-ay-rr
ToFlow-Currere	koɤeɤ	k-oh-rr-ay-rr
ToFreeze	ʒilaɤ	gzah-eee-l-ah-er
ToBurn-Cremare	keɤjmaɤe	k-diphthong_portuguese-m-ah-er-ay
ToBurn-Ardere	aɤdeɤ	ah-rr-d-ay-rr
ToBurn-Flagrare	flagɤaɤ	f-l-ah-j-rr-ah-rr
ToBurn-Incendere	isendɤʒaɤ	een-s-ay-n-VdPalatoAlveolarSibilant-NearCloseFrontUnrounded-ah-er
All-Totus	todu	t-oh-d-u
Many	mūɤʒtu	m-ooo-jn-t-u
Many-Tantus	tētu	t-ahn-t-u
Some	awgū	ah-w-g-ooo
Few	powku	p-oh-w-k-u
Other	owtru	oh-w-t-er-u
Other-Alius	aw	ah-w
Big-Grandem	grēdɤʒi	g-er-ahn-VdPalatoAlveolarSibilant-e
Long-Longum	lōgu	l-on-g-u
Long-Largum	laɤgu	l-ah-rr-g-u

## Appendix 4 - Word Lists by Language

Wide	latu	l-ah-t-u
Wide-Amplum	ẽfu	ahn-shh-u
Thick-Spissum	espesu	ay-s-p-eh-s-u
Thick-Grossum	grosu	g-er-oh-s-u
Heavy	gravi	g-er-ah-v-e
Heavy-Lurdus	lerdo	l-ay-er-d-oh
Heavy-Pesant	pezadu	p-ay-zz-ah-d-u
Small-Pittinus	pekenu	p-ay-k-ay-n-u
Short	kurtu	k-u-rr-t-u
Short-Brevis	br̃evi	b-er-eh-v-e
Narrow-Strictus	istrejtu	e-s-t-er-ej_diphthong-t-u
Thin	miudu	m-e-u-d-u
Thin-Delicatus	dewgadu	d-ay-w-g-ah-d-u
Thin-Subtilis	suf̃iʷ	s-u-ts-e-w
Dry	seku	s-ay-k-u
Right-Dextrem	destru	d-eh-s-t-er-u
Right-Directus	dir̃ejt̃	d-e-er-diphthong_portuguese-t-ahh
Red	ʁoʃu	rr-oh-shh-NearCloseBackRounded
Red-Vermiculus	veʁmeʎu	v-ay-rr-m-ay-yuh-u
Red-Rubeus	rubeo	r-u-b-ay-oh
Green	verdi	v-ay-er-d-eee
Yellow-Amarellus	ẽmareʎu	ahh-m-ah-er-eh-l-u
White	awvu	ah-w-v-u
One	ũ	ooo
Two-Duos	dojs	d-oj_diphthong-s
Two-Duas	dues	d-u-ahh-s
Three	tres	t-er-ay-s
Four	kwatru	k-w-ah-t-er-u
Five	siku	s-eeen-k-u
Here	aki	ah-k-e
There	la	l-ah
There-Adlbi	ai	ah-e
Who-Quem	kẽʃ̃	k-nasal_diphthong_portuguese1
What	ki	k-e
When-Quando	kwẽdu	k-w-ahn-d-u
How-Quomodo	komu	k-oh-m-u
Not	nẽw̃	n-au_diphthong_nasal
Not-Nec	nẽʃ̃	n-nasal_diphthong_portuguese1
And-Et	i	e

## Portuguese

Cognate	IPA	Sounds
I	ew	ay-w
We	noʃ	n-euh-shh
YouPlural	voʃ	v-oh-shh
YouSingular	tu	t-u
YouSingular-VostramMercedem	vose	v-euh-s-ay
Woman	femj̃e	f-ay-m-jg-ahh
Woman-Mulier	muʎer	m-u-yuh-ay-er
Woman-Domina	doñe	d-oh-n-ahh
ManHumanBeing	omẽʃ̃	euh-m-nasal_diphthong_portuguese1
Child	ĩf̃eti	een-f-ahn-t-eee
Child-Ninnus	nenẽʃ̃	n-ay-n-nasal_diphthong_portuguese1
Wife	ĩʃ̃poz̃e	eee-shh-p-oh-zz-ahh
Wife-Mulier	muʎer	m-u-yuh-ay-er

## Appendix 4 - Word Lists by Language

Husband	meriðu	m-ahh-er-e-dd-u
Husband-Sponsus	ifpozu	eee-shh-p-oh-zz-u
Mother	mẽj	m-nasal_diphthong_portuguese2
Father	paj	p-aj_diphthong
Father-Tata	tata	t-ah-t-ah
Animal-Bestia	bifɛ	b-e-shh-ahh
Fish-Piskem	pejfi	p-diphthong_portuguese-shh-eee
Bird-Avem	avi	ah-v-eee
Bird-Passerem	pasɛru	p-ah-s-ahh-er-u
Louse	pioɫu	p-e-oh-yuh-u
Snake	sirpɛti	s-eee-er-p-ehn-t-eee
Worm	vermi	v-ay-er-m-eee
Tree	arvuri	ah-er-v-u-er-eee
Forest	sɛlve	s-eh-ssha-v-ahh
Stick	paw	p-ah-w
Fruit	frutɛ	f-er-u-t-ahh
Flower	flor	f-l-oh-er
Tail	kawdɛ	k-ah-w-d-ahh
Feather-Penna	pene	p-ay-n-ahh
Hair	pilu	p-eee-l-u
Hair-Capillus	kɛβelu	k-ahh-bb-ay-l-u
Head	kɛβese	k-ahh-bb-ay-s-ahh
Head-Testa	tɛftɛ	t-eh-shh-t-ahh
Ear	orejɫɛ	oh-er-diphthong_portuguese-yuh-ahh
Eye	oɫu	oh-yuh-u
Nose-Nares	nɛrif	n-ahh-er-e-shh
Mouth	boke	b-oh-k-ahh
Wing	a	ah
Neck	kɔlu	k-euh-l-u
Breast	sɛju	s-diphthong_portuguese-u
Breast-Pectus	pɛjtu	p-diphthong_portuguese-t-u
Heart	kor	k-oh-er
Heart-Anima	almɛ	ah-l-m-ahh
Liver	fiyɛðu	f-e-juh-ahh-dd-u
Sun	sɔɫ	s-euh-ssha
Moon	luɛ	l-u-ahh
Star	iftrelɛ	eee-shh-t-er-ay-l-ahh
Water	agwɛ	ah-g-w-ahh
Rain	juvɛ	shh-u-v-ahh
River	flumi	f-l-u-m-eee
River-Rivus	ɛiu	rr-e-u
Lake	layu	l-ah-juh-u
Sea	mar	m-ah-er
Salt	sal	s-ah-l
Earth	tɛkɛ	t-eh-rr-ahh
Cloud	nuvẽj	n-u-v-nasal_diphthong_portuguese2
Cloud-Secondary	nubladu	n-u-b-l-ah-d-u
Fog	kɛliʒɛj	k-ahh-l-e-gzah-nasal_diphthong_portuguese2
Fog-Nebula	nevwe	n-eh-v-w-ahh
Fog-Tenebras	trɛvɛf	t-er-eh-v-ahh-shh
Fog-Fumata	fumasɛ	f-u-m-ah-s-ahh
Sky	sew	s-eh-w
Wind	vɛtu	v-ehn-t-u
Smoke	fumu	f-u-m-u
Fire-Focus	foɣu	f-oh-juh-u
Ash-Cinisia	sizɛf	s-eeen-zz-ahh-shh
Night	nojti	n-oj_diphthong-t-eee

## Appendix 4 - Word Lists by Language

Day	diē	d-e-ahh
Day-Diurna	zɔɣna	gzah-euh-rr-n-ah
Year	enu	ahh-n-u
Name-Nomen	nomi	n-oh-m-eee
Tongue	liḡwe	l-eeen-g-w-ahh
ToDrink	biṣer	b-eee-bb-ay-er
ToEat	kumer	k-u-m-ay-er
ToEat-Manducare	mēzar	m-ahn-gzah-ah-er
ToBite	murḡer	m-u-er-dd-ay-er
ToBite-Morsicare	musəgar	m-u-s-aah-g-ah-r
ToSuck	sugar	s-u-g-ah-er
ToSpit	kuṣpir	k-u-shh-p-e-er
ToKnow-Sapere	səber	s-ahh-b-ay-er
ToKnow-Cognoscere	kuṇiser	k-u-VdPalatalNasal-eee-s-ay-er
ToThink	kuzitar	k-u-gzah-e-t-ah-er
ToThink-Pensare	pēsar	p-ehn-s-ah-er
ToFear	timer	t-eee-m-ay-er
ToFear-Tremere	trimer	t-er-eee-m-ay-er
ToSleep	durmir	d-u-er-m-e-er
ToLive	viver	v-e-v-ay-er
ToDie	muḡer	m-u-rr-ay-er
ToKill-Mactare	meṭar	m-ahh-t-ah-er
ToFight-Battuere	beter	b-ahh-t-ay-er
ToHunt-Captiare	keṣar	k-ahh-s-ah-er
ToHit	puṣar	p-u-shh-ah-er
ToCut	siṣar	s-eee-juh-ah-er
ToCut-Curtare	kurtar	k-u-er-t-ah-er
ToCut-Taliare	teḡar	t-ahh-yuh-ah-er
ToSplit	diviḡir	d-e-v-e-dd-e-er
ToSplit-Findere	fēder	f-ehn-d-ay-er
ToSplit-Partire	pertir	p-ahh-er-t-e-er
ToSplit-Separare	sipərar	s-eee-p-ahh-er-ah-er
ToStab	pūzir	p-ooo-gzah-e-er
ToScratch	keṣer	rr-ahh-ay-er
ToScratch-Rasare	kezar	rr-ahh-zz-ah-er
ToScratch-Rasicare	keḡkar	rr-ahh-shh-k-ah-er
ToScratch-Coctiare	kusar	k-u-s-ah-er
ToDig-Cavare	kevar	k-ahh-v-ah-er
ToDig-Excavare	ifkevar	e-shh-k-ahh-v-ah-er
ToSwim	neḡar	n-ahh-dd-ah-er
ToSwim-Navigare	neviṣar	n-ahh-v-eee-juh-ah-er
ToFly	vwar	v-w-ah-er
ToWalk	keṃinar	k-ahh-m-e-VdPalatalNasal-ah-er
ToWalk-Ambitare	ēdar	ahn-d-ah-er
ToCome	vir	v-e-er
ToLieAsInABed	iftēder	e-shh-t-ehn-d-ay-er
ToLieAsInABed-lacere	zezer	gzah-ahh-zz-ay-er
ToSit	ser	s-ay-er
ToSit-Sedentare	sētar	s-ehn-t-ah-er
ToStand	iftar	eee-shh-t-ah-er
ToStand-Levare	livar	l-eee-v-ah-er
ToStand-Altiare	aṣsar	ah-ssha-s-ah-er
ToTurnIntransitive	turnar	t-u-er-n-ah-er
ToTurnIntransitive-Gyrare	zirar	gzah-e-er-ah-er
ToTurnIntransitive-AncestralClass3	zirar	gzah-e-er-ah-er
ToTurnIntransitive-Torqueare	turser	t-u-r-s-ay-r
ToFall	keir	k-ahh-e-er

## Appendix 4 - Word Lists by Language

ToFall-Tumbare	tōbar	t-on-b-ah-er
ToHold	ter	t-ay-er
ToHold-Segurar	siyurar	s-eee-juh-u-er-ah-er
ToSqueeze	ijprəmer	e-shh-p-r-aah-m-ay-r
ToSqueeze-Serrere	sərar	s-aah-VIUvularTrill-ah-er
ToSqueeze-Serare	sixar	s-eee-rr-ah-er
ToSqueeze-Appetorare	əpirtar	ahh-p-eee-er-t-ah-er
ToSqueeze-Stringere	əʃtrɪʒir	aah-shh-t-r-een-gzah-e-r
ToRub-Exfricare	ijfriyar	eee-shh-f-er-eee-juh-ah-er
ToWash	lɐvar	l-ahh-v-ah-er
ToWipe-Exsucare	ɛʃuɐar	ehn-shh-u-juh-ah-er
ToWipe-Limpidare	lipar	l-een-p-ah-er
ToPull	tirar	t-e-er-ah-er
ToPull-Pulsare	puʃar	p-u-shh-ah-er
ToPull-Trahere	trezer	t-er-ahh-zz-ay-er
ToThrow	ʒejtar	gzah-ej_diphthong-t-ah-er
ToThrow-Lanceare	lɛsar	l-ahn-s-ah-er
ToTie-Aptare	ɐtar	ahh-t-ah-er
ToSew	kuzer	k-u-zz-ay-er
ToCount	kōtar	k-on-t-ah-er
ToCount-Enumerare	enumerar	ay-n-u-m-ay-er-ah-er
ToSay	dizer	d-e-zz-ay-er
ToSing-AncestralClass	kētar	k-ahn-t-ah-er
ToPlay-Jiocare	zuɐar	gzah-u-juh-ah-er
ToFloat	flutuar	f-l-u-t-u-ah-er
ToFlow	flwir	f-l-w-e-er
ToFlow-Colare	kuar	k-u-ah-er
ToFlow-Excurrere	ijkurer	e-shh-k-u-VIUvularTrill-ay-er
ToFlow-Currere	kuxer	k-u-rr-ay-er
ToFreeze	zilar	gzah-eee-l-ah-er
ToBurn-Cremare	kejmaɐe	k-ej_diphthong-m-ah-rr-ay
ToBurn-Ardere	ɐrder	ahh-er-d-ay-er
ToBurn-Flagrare	flagrar	f-l-ah-g-er-ah-er
ToBurn-Incendere	isɛdjar	een-s-ehn-d-jg-ah-er
All-Totus	toðu	t-oh-dd-u
Many	mũjtu	m-ooo-jn-t-u
Many-Tantus	tɛtu	t-ahn-t-u
Some	alɣũ	ah-ssha-g-ooo
Few	powku	p-oh-w-k-u
Other	owtru	oh-w-t-er-u
Other-Alius	aɫ	ah-ssha
Big-Grandem	grɛdi	g-er-ahn-d-eee
Long-Longum	lɔgu	l-on-g-u
Long-Largum	largu	l-ah-er-g-u
Wide	latu	l-ah-t-u
Wide-Amplum	ɛʃu	ahn-shh-u
Thick	graʃu	g-er-ah-shh-u
Thick-Spissum	ijpesu	e-shh-p-ay-s-u
Thick-Grossum	grosu	j-er-oh-s-u
Heavy	gravi	g-er-ah-v-eee
Heavy-Lurdus	lerdo	l-ay-er-d-oh
Heavy-Pesant	pizaðu	p-eee-zz-ah-dd-u
Small-Pittinus	pikenu	p-eee-k-ay-n-u
Short	kurtu	k-u-er-t-u
Short-Brevis	brevi	b-er-eh-v-eee
Narrow-Strictus	ijtrejtu	eee-shh-t-er-diphthong_portuguese-t-u
Thin	miuðu	m-e-u-dd-u

## Appendix 4 - Word Lists by Language

Thin-Delicatus	dɛɭɹaðu	d-eh-ssha-juh-ah-dd-u
Thin-Subtilis	suɭɹɪw	s-u-ts-e-w
Dry	seku	s-ay-k-u
Right-Dextrem	dɛɭɹu	d-eh-shh-t-er-u
Right-Directus	dirɛjtɐ	d-e-r-diphthong_portuguese-t-ahh
Red	ɾoɭu	rr-oh-shh-u
Red-Vermiculus	virɱɛjɭu	v-eee-er-m-diphthong_portuguese-yuh-u
Red-Rubeus	rubeo	r-u-b-ay-oh
Green	verdi	v-ay-er-d-eee
Yellow-Amarellus	ɐmɛɾɛɭu	ahh-m-ahh-er-ch-l-u
White	alvu	ah-l-v-u
One	ũ	ooo
Two-Duos	dojɭ	d-oj_diphthong-shh
Two-Duas	duɛɭ	d-u-ahh-shh
Three	trɛɭ	t-er-ay-shh
Four	kwatru	k-w-ah-t-er-u
Five	siku	s-een-k-u
Here	ɛki	ahh-k-e
There	la	l-ah
There-Adlbi	ɛi	ahh-e
Who-Quem	kɛj	k-nasal_diphthong_portuguese2
What	ki	k-eee
When-Quando	kwɛɖu	k-w-ahn-d-u
How-Quomodo	komu	k-oh-m-u
Not	nɛw	n-au_diphthong_nasal
Not-Nec	nɛj	n-nasal_diphthong_portuguese2
And-Et	i	e

## Catalan

Cognate	IPA	Sounds
I	ʒə	gzah-euh
YouPlural	bus	b-u-s
YouSingular	tu	t-u
YouSingular-VostramMercedem	voste	v-oh-s-t-ay
Woman	fembra	f-ay-m-b-er-ah
Woman-Mulier	muɭe	m-u-yuh-ay
Woman-Domina	dɔnə	d-euh-n-aah
ManHumanBeing	ɔmə	euh-m-aah
Child-Ninnus	nen	n-ay-n
Wife	əspəzə	aah-s-p-euh-zz-aah
Wife-Mulier	muɭe	m-u-yuh-ay
Husband	marit	m-ah-er-e-t
Husband-Sponsus	əspɔs	aah-s-p-euh-s
Mother	marə	m-ah-er-aah
Father	parə	p-ah-er-aah
Fish-Piskem	pɛɭ	p-ay-shh
Bird-Avem	aw	ah-w
Bird-Avicellum	useɭ	u-s-ay-yuh
Louse	poɭ	p-oh-yuh
Snake	səpɛn	s-aah-r-p-ay-n
Snake-Serpens	sɛp	s-ay-er-p
Worm	vɛrm	v-eh-er-m
Tree	abrə	ah-b-er-aah
Forest	selba	s-ay-l-b-ah
Stick	pal	p-ah-l

## Appendix 4 - Word Lists by Language

Fruit	frujt	f-er-u-jg-t
Flower	flə	f-l-euh
Tail	kua	k-u-ah
Feather	plomə	p-l-oh-m-aah
Feather-Penna	pɛɲə	p-eh-VdPalatalNasal-aah
Hair	pɛl	p-eh-l
Hair-Capillus	kəbɛʎ	k-aah-b-eh-yuh
Head	kap	k-ah-p
Head-Testa	testə	t-ay-s-t-aah
Ear	urɛʎə	u-er-eh-yuh-aah
Nose	nas	n-ah-s
Nose-Nares	na:ɾis	n-A-r-NearCloseFrontUnrounded-s
Mouth	bokə	b-oh-k-aah
Mouth-Gula	golə	j-oh-l-aah
Wing	alə	ah-l-aah
Neck	kɔʎ	k-euh-yuh
Breast	si	s-e
Breast-Pectus	pit	p-e-t
Heart	kɔr	k-euh-r
Liver	fɛdʒə	f-ay-VdPalatoAlveolarSibilant-aah
Sun	səl	s-euh-l
Moon	ʎunə	yuh-u-n-aah
Star	əstɛl	aah-s-t-eh-l
Water	ajɣwə	aj_diphthong-juh-w-aah
Rain	pluzə	p-l-u-gzah-aah
River-Rivus	riw	r-e-w
Lake	ʎak	yuh-ah-k
Sea	mar	m-ah-r
Salt	sal	s-ah-l
Earth	tɛrə	t-eh-r-aah
Cloud-Secondary	nuβul	n-u-bb-u-ssha
Fog-Nebula	newlə	n-ay-w-l-aah
Fog-Tenebras	tənebrəs	t-aah-n-ay-b-er-aah-s
Sky	sɛl	s-eh-l
Wind	ben	b-ay-n
Ice	ʒɛl	gzah-eh-ssha
Smoke	fum	f-u-m
Fire-Focus	fɔk	f-euh-k
Ash	sɛndrə	s-eh-n-d-r-aah
Night	nit	n-e-t
Day	diə	d-e-aah
Day-Diurnus	ʒɔrn	gzah-oh-er-n
Year	aj	ah-VdPalatalNasal
Name-Nomen	nɔm	n-euh-m
ToDrink	bɛwɾə	b-eh-w-er-aah
ToEat-Manducare	məɲʒa	m-aah-VdPalatalNasal-gzah-ah
ToBite-Morsicare	musəɣa	m-u-s-aah-juh-ah
ToSpit-Exconspuere	əskupi	aah-s-k-u-p-e
ToKnow-Sapere	səβɛ	s-aah-bb-eh
ToKnow-Cognoscere	kunɛʃə	k-u-n-eh-shh-aah
ToThink	kujda	k-u-jg-d-ah
ToThink-Pensare	pənsa	p-aah-n-s-ah
ToFear	tɛmə	t-ay-m-aah
ToSleep	durmi	d-u-r-m-e
ToLive	biwɾə	b-e-w-er-aah
ToDie	muri	m-u-er-e
ToKill	nəga	n-aah-g-ah



## Appendix 4 - Word Lists by Language

ToKill-Mactare	məta	m-aah-t-ah
ToKill-Occidere	uksi	u-k-s-e
ToFight	pupa	p-u-VdPalatalNasal-ah
ToFight-Battuere	batrə	b-ah-t-er-aah
ToHunt-Captiare	kəsa	k-aah-s-ah
ToCut	səya	s-aah-juh-ah
ToCut-Taliare	təʎa	t-aah-yuh-ah
ToSplit	dibidi	d-e-b-e-d-e
ToSplit-Findere	fəndrə	f-eh-n-d-er-aah
ToSplit-Partire	pərti	p-aah-r-t-e
ToSplit-Separare	səpəra	s-aah-p-aah-er-ah
ToStab	puni	p-u-VdPalatalNasal-e
ToScratch	rawrə	r-ah-w-er-aah
ToScratch-Rasare	rəza	r-aah-zz-ah
ToScratch-Rasicare	rəska	r-aah-s-k-ah
ToDig-Cavare	kəba	k-aah-b-ah
ToSwim	nəda	n-aah-d-ah
ToSwim-Navigare	nəbəga	n-aah-b-aah-g-ah
ToFly	bula	b-u-l-ah
ToWalk	kəmina	k-aah-m-e-n-ah
ToCome	bəni	b-aah-n-e
ToLieAsInABed	əstendrə	aah-s-t-ay-n-d-er-aah
ToLieAsInABed-lacere	zawrə	gzah-ah-w-er-aah
ToStand	əsta	aah-s-t-ah
ToStand-Levare	ʎəba	yuh-aah-b-ah
ToStand-Altiare	əlsa	aah-l-s-ah
ToTurnIntransitive	turna	t-u-r-n-ah
ToTurnIntransitive-Gyrare	zira	gzah-e-er-ah
ToTurnIntransitive-AncestralClass3	bira	b-e-er-ah
ToTurnIntransitive-Torquere	tərsə	t-euh-r-s-aah
ToFall	kawrə	k-ah-w-r-aah
ToFall-Tumbare	tumba	t-u-m-b-ah
ToHold	təni	t-aah-n-e
ToSqueeze	əspremə	aah-s-p-er-ay-m-aah
ToSqueeze-Serrere	səra	s-aah-r-ah
ToSqueeze-Stringere	əstrəpə	aah-s-t-er-eh-VdPalatalNasal-aah
ToRub	frəga	f-er-aah-g-ah
ToRub-Frictiare	frəsa	f-er-aah-s-ah
ToWash	ʎəba	yuh-aah-b-ah
ToWipe-Extergere	əstərzi	aah-s-t-aah-r-gzah-e
ToWipe-Exsucare	əfuga	aah-shh-u-g-ah
ToPull	tira	t-e-er-ah
ToPull-Trahere	trəwrə	t-er-eh-w-er-aah
ToPush	əmpəpə	aah-m-p-eh-VdPalatalNasal-aah
ToThrow	xita	xha-e-t-ah
ToThrow-Lanceare	ʎənsa	yuh-aah-n-s-ah
ToTie	ʎiya	yuh-e-juh-ah
ToSew	kuzi	k-u-zz-e
ToCount	kumta	k-u-m-t-ah
ToCount-Enumerare	enumera	ay-n-u-m-ay-er-ah
ToSay	di	d-e
ToSing-AncestralClass	kənta	k-aah-n-t-ah
ToPlay-Jiocare	zuga	gzah-u-g-ah
ToFloat	fluktua	f-l-u-k-t-u-ah
ToFlow	flui	f-l-u-e
ToFlow-Colare	kula	k-u-ssha-ah
ToFlow-Excurrere	əskorə	aah-s-k-oh-r-aah

## Appendix 4 - Word Lists by Language

ToFlow-Currere	korə	k-oh-r-aah
ToFreeze	ʒəla	gzah-aah-l-ah
ToFreeze-Glaciare	gləsa	g-l-aah-s-ah
ToBurn-Cremare	krəma	k-r-aah-m-ah
ToBurn-Flammare	flama	f-ssha-ah-m-ah
ToBurn-Incendere	ənsendrə	aah-n-s-ay-n-d-er-aah
All-Totus	tot	t-oh-t
Many	mol	m-oh-l
Many-Tantus	tant	t-ah-n-t
Some	əlgʊ	aah-l-g-u
Few	pək	p-euh-k
Other	altərə	ah-l-t-er-aah
Big-Grandem	gran	j-r-ah-n
Long-Longum	loŋ	yuh-oh-nya
Long-Largum	lark	yuh-ah-er-k
Wide-Amplum	amplə	ah-m-p-l-aah
Thick	gras	g-er-ah-s
Thick-Spissum	əspəs	aah-s-p-eh-s
Thick-Grossum	grəs	g-er-euh-s
Heavy	grew	g-er-ay-w
Heavy-Pesant	pəzat	p-aah-zz-ah-t
Small	pətit	p-aah-t-e-t
Short	kurt	k-u-er-t
Short-Brevis	brew	b-er-ay-w
Narrow-Strictus	əstrət	aah-s-t-er-eh-t
Thin	mənʊt	m-aah-n-u-t
Thin-Delicatus	dəlikat	d-aah-l-e-k-ah-t
Thin-Subtilis	suptil	s-u-p-t-e-l
Dry	sek	s-eh-k
Right-Dextrem	destrə	d-ay-s-t-er-aah
Right-Directus	drət	d-er-eh-t
Red	ros	r-oh-s
Red-Vermiculus	bərmɛʎ	b-aah-r-m-eh-yuh
Red-Rubeus	rudʒe	r-u-VdPalatoAlveolarSibilant-ay
Green	vɛrt	v-eh-er-t
Yellow-Croceus	grək	j-er-euh-k
White	alb	ah-l-b
One	un	u-n
Two-Duos	dos	d-oh-s
Three	tɾəs	t-r-eh-s
Four	kwatrə	k-w-ah-t-er-aah
Five	siŋk	s-e-nya-k
Here	aki	ah-k-e
There	əʎa	aah-yuh-ah
Who-Qui	ki	k-e
What	kɛ	k-eh
When-Quando	kwan	k-w-ah-n
How-Quomodo	kɔm	k-euh-m
Not	no	n-oh
Not-Nec	ni	n-e
And-Et	i	e

## Walloon

Cognate	IPA	Sounds
l	dʒɹ	VdPalatoAlveolarSibilant-NearCloseFrontUnrounded

## Appendix 4 - Word Lists by Language

We	no	n-oh
YouPlural	vos	v-oh-s
YouSingular	ty	t-eeh
Woman	fœm	f-OpenMidNearFrontRounded-m
Woman-Domina	dœm	d-OpenMidNearFrontRounded-m
ManHumanBeing	ɔm	euh-m
Child	ɛfã	eh-f-NasalA
Mother	mer	m-ay-VIUvularTrill
Father	pɛ:r	p-Eh-r
Fish-Pescion	pehō	p-eh-h-on
Bird-Avicellum	u:hɛ:	U-h-Eh
Louse	pju	p-jg-u
Snake	sjɛkpɛ	s-jg-eh-rr-p-ehn
Worm	vjɛr	v-jg-eh-VIUvularTrill
Tree	o:b	O-b
Fruit	fry	f-VIUvularTrill-eeh
Flower	flɔ:ɤ	f-l-o-rr
Tail	kɔw	k-euh-w
Feather	plɔm	p-l-euh-m
Feather-Penna	pen	p-ay-n
Hair-Capillus	ʃivja	ts-e-v-jg-ah
Head-Testa	ʃɛs	ts-eh-s
Ear	ɔraj	euh-VIUvularTrill-aj_diphthong
Eye	u:j	U-jg
Nose	ne	n-ay
Mouth	bɔk	b-euh-k
Mouth-Gula	gɔ:j	g-o-jg
Wing	el	ay-l
Heart	ku:ɤ	k-U-rr
Heart-Anima	ɔ:m	LongOpenMidBackRounded-m
Liver	fɔ:t	f-o-t
Sun	solo	s-euh-l-euh
Moon	lɔn	l-uu-n
Star	stɔ:l	s-t-o-l
Water	ɛ:w	Eh-w
Rain	plu:ɤ	p-l-U-rr
River-Riparia	rivi:ɤ	r-e-v-E-rr
Lake	lak	l-ah-k
Sea	meɤ	m-ay-rr
Salt	se	s-ay
Earth	tɛ:ɤ	t-Eh-rr
Sky	si:ɤ	s-E-rr
Wind	vɛ	v-ehn
Fire-Focus	fɔ:	f-o
Ash	sɛ:d	s-LongNasalE-d
Night	nyt	n-eeh-t
Day	dʒu:	VdPalatoAlveolarSibilant-U
Day-Diurnus	dʒu:	VdPalatoAlveolarSibilant-U
Year	ã	NasalA
Name-Nomen	nō	n-on
Tongue	lɛu	l-eu_nasalized_diphthong
ToDrink	bɔ:ɤ	b-o-rr
ToEat-Manducare	mapi:	m-ah-VdPalatalNasal-E
ToSuck	sysi:	s-eeh-s-E
ToKnow-Sapere	savɔ:r	s-ah-v-o-VIUvularTrill
ToKnow-Cognoscere	kinɔh	k-e-n-euh-h
ToThink-Pensare	pɛse	p-chnn-s-ay

## Appendix 4 - Word Lists by Language

ToSleep	dwaꞤmi	d-w-ah-rr-m-e
ToDie	mɔ̃ri	m-euh-VIUvularTrill-e
ToKill-Tutari	tuwe	t-u-w-ay
ToFight-Battuer	bate	b-ah-t-ay
ToHunt-Captiare	ʃɛsi:	ts-eh-s-E
ToCut-Taliare	tɛji:	t-eh-jg-E
ToSplit-Findere	fɛt	f-chnn-t
ToSplit-Partire	pɔ:rti	p-LongOpenMidBackRounded-VIUvularTrill-t-e
ToDig-Cavare	ɕa:vle	sh-aay-v-l-ay
ToSwim-Navigare	nɛdʒi:	n-eh-VdPalatoAlveolarSibilant-E
ToFly	vole	v-euh-l-ay
ToWalk	ʃimine	ts-e-m-e-n-ay
ToWalk-Marcher	ma:ʀʃi:	m-A-VIUvularTrill-ts-E
ToCome	vini	v-e-n-e
ToLieAsInABed-lacere	dʒere	VdPalatoAlveolarSibilant-ay-r-ay
ToStand	ɛs	eh-s
ToStand-Levare	lɔve	l-aah-v-ay
ToStand-Altiare	hɔ:si:	h-LongOpenMidBackRounded-s-E
ToTurnIntransitive	tu:rne	t-U-r-n-ay
ToTurnIntransitive-AncestralClass3	vixe	v-e-rr-ay
ToFall	ʃɛ:r	ts-Eh-VIUvularTrill
ToFall-Tumbare	tume	t-u-m-ay
ToHold	tini	t-e-n-e
ToSqueeze-Serare	sere	s-eh-VIUvularTrill-ay
ToSqueeze-Stringere	stringe	s-t-r-e-n-j-ay
ToRub	froj	f-r-ɔj_diphthong
ToRub-Frictare	fɔte	f-rr-oh-t-ay
ToWash	lave	l-ah-v-ay
ToWipe-Exsucare	suwe	s-u-w-ay
ToPull	tire	t-e-r-ay
ToPull-Pulsare	pu:si:	p-U-s-E
ToThrow	dʒete	VdPalatoAlveolarSibilant-eh-t-ay
ToThrow-Lanceare	lanci:	l-ah-n-tya-E
ToTie	lɔji:	l-euh-jg-E
ToSew	kø:z	k-o-zz
ToCount	kɔte	k-on-t-ay
ToSay	di:ʀ	d-E-rr
ToSing-AncestralClass	ʃɛte	ts-NasalA-t-ay
ToPlay-Jiocare	dʒuwe	VdPalatoAlveolarSibilant-u-w-ay
ToFlow-Colare	kɔle	k-euh-l-ay
ToFreeze	dʒale	VdPalatoAlveolarSibilant-ah-l-ay
ToBurn-Brojan	bɔu:le	b-rr-U-l-ay
All-Totus	tɔ	t-euh
Few	pɔ̃	p-on
Other	ɔ̃t	on-t
Big-Grandem	gɔ̃ã	j-rr-NasalA
Long-Longum	lɔ̃	l-on
Thick-Spissum	spe	s-p-eh
Heavy	grav	j-r-ah-v
Small	piti	p-e-t-e
Short	ku:ʀ	k-U-rr
Short-Brevis	bɔɛf	b-rr-ay-f
Narrow-Strictus	stɔ̃:	s-t-rr-o
Thin	minu	m-e-n-u
Thin-Subtilis	su:ti	s-U-t-e
Dry	seʃ	s-eh-ts
Right-Directus	drɔ:t	d-r-o-t

## Appendix 4 - Word Lists by Language

Red-Rubeus	rəʃ	r-euh-ts
Green	vɛɾ	v-eh-rr
Yellow	ɟɛn	VdPalatoAlveolarSibilant-eh-n
One	ō	on
Two-Duos	dø:	d-o
Three	trø:	t-r-o
Four	kwat	k-w-ah-t
Five	sɛk	s-ehn-k
There	la	l-ah
Who-Qui	ki:	k-E
What	kwɛ:	k-w-Eh
When-Quando	kwand	k-w-ah-n-d
How-Quomodo	kɔmɛ̃	k-euh-m-ehnn
Not-Nec	nɛ̃	n-ehn
And-Et	ɛ	eh

### Friulian

Cognate	IPA	Sounds
I	jo	jg-oh
We	no:	n-O
YouPlural	vo:	v-O
YouSingular	tu	t-u
Woman	femine	f-eh-m-e-n-eh
Woman-Mulier	mui:r	m-u-E-r
Woman-Domina	dɔne	d-euh-n-ay
ManHumanBeing	ɔm	euh-m
Wife-Mulier	mui:r	m-u-E-r
Husband	mari:t	m-ah-r-E-t
Husband-Sponsus	spo:s	s-p-O-s
Mother	mari	m-ah-r-e
Father	pari	p-ah-r-e
Animal	nema:l	n-ay-m-A-l
Animal-Bestia	bis	b-e-s
Fish-Piskem	pes	p-eh-s
Bird-Avicellum	uʃʃjel	u-ts-jg-eh-l
Louse	pedoli	p-ay-d-oh-l-e
Snake	sarpint	s-ah-r-p-e-n-t
Worm	vjer	v-jg-eh-r
Tree	arbul	ah-r-b-u-l
Forest	selve	s-eh-l-v-ay
Stick	pa:l	p-A-l
Fruit	frut	f-r-u-t
Flower	flo:r	f-l-O-r
Tail	kɔde	k-euh-d-eh
Feather	plume	p-l-u-m-eh
Feather-Penna	pene	p-eh-n-ay
Hair	pe:l	p-ai-l
Hair-Capillus	cavej	tya-ah-v-ej_diphthong
Head	ca:f	tya-A-f
Head-Testa	tɛste	t-eh-s-t-ay
Ear	orele	oh-r-ay-l-ay
Eye	voli	v-oh-l-e
Nose	na:s	n-A-s
Mouth	bɔce	b-euh-tya-eh
Mouth-Gula	gole	j-euh-l-ay

## Appendix 4 - Word Lists by Language

Wing	ale	ah-l-ay
Neck	kwɛl	k-w-eh-l
Breast	sen	s-ay-n
Breast-Pectus	pet	p-eh-t
Heart	ku:r	k-U-r
Heart-Anima	anime	ah-n-e-m-ay
Liver	fija:t	f-e-jg-A-t
Sun-Soliculus	soreli	s-oh-r-ay-l-e
Moon	lune	l-u-n-ay
Star	stele	s-t-eh-l-ay
Water	age	ah-j-ay
Rain	ploje	p-l-oh-jg-ay
River	flum	f-l-u-m
Lake	la:t	l-A-t
Sea	ma:r	m-A-r
Salt	sa:l	s-A-l
Earth	tjere	t-jg-eh-r-ay
Cloud-Secondary	nu:l	n-U-l
Fog-Fumata	fumate	f-u-m-ah-t-ay
Sky	ʃi:l	ts-E-l
Wind	'vint	v-e-n-t
Smoke	fum	f-u-m
Fire-Focus	fu:k	f-U-k
Ash-Cinisia	ʃi:nize	ts-e-n-e-zz-eh
Night	not	VdPalatalNasal-euh-t
Day	di	d-e
Day-Diurnata	ɖɔrnade	VdPalatoAlveolarAffricate-oh-r-n-ah-d-ay
Year	aŋ	ah-nya
Name-Nomen	nɔŋ	n-euh-nya
Tongue	'lengɛ	l-eh-n-j-eh
ToDrink	bevi	b-ay-v-e
ToEat-Manducare	maŋja:	m-ah-nya-VdPalatalStop-A
ToBite	mwardi	m-w-ah-r-d-e
ToSuck	cuca:	tya-u-tya-A
ToSpit-Sputare	spuda:	s-p-u-d-A
ToKnow-Sapere	save:	s-ah-v-ai
ToKnow-Cognoscere	koɓosi	k-oh-VdPalatalNasal-oh-s-e
ToThink-Pensare	peŋsa:	p-ay-nya-s-A
ToFear	temi	t-ay-m-e
ToFear-Tremere	trima:	t-r-e-m-A
ToSleep	durmi:	d-u-r-m-E
ToLive	vivi	v-e-v-e
ToDie	muri:	m-u-r-E
ToKill-Mactare	maʃa:	m-ah-ts-A
ToFight-Battuere	bati	b-ah-t-e
ToHunt-Captiare	caʃa:	tya-ah-ts-A
ToHit	pulsa:	p-u-l-s-A
ToCut	sea:	s-ay-A
ToCut-Excurtare	skurta:	s-k-u-r-t-A
ToCut-Taliare	taja:	t-ah-jg-A
ToSplit	dividi	d-e-v-e-d-e
ToSplit-Partire	parti:	p-ah-r-t-E
ToSplit-Separare	separa:	s-ay-p-ah-r-A
ToScratch	rada:	r-ah-d-A
ToScratch-Rasare	rasa:	r-ah-s-A
ToDig-Cavare	java:	VdPalatalStop-ah-v-A
ToDig-Excavare	zjava:	zz-VdPalatalStop-ah-v-A

## Appendix 4 - Word Lists by Language

ToSwim	nada:	n-ah-d-A
ToSwim-Navigare	naviga:	n-ah-v-e-j-A
ToFly-Exvolare	zvola:	zz-v-oh-l-A
ToWalk	camina:	tya-ah-m-e-n-A
ToCome	vijni:	v-e-VdPalatalNasal-E
ToLieAsInABed-lacere	jesi	jg-ay-s-e
ToSit-Sedentare	senta:	s-ay-n-t-A
ToStand	sta:	s-t-A
ToStand-Levare	leva:	l-ay-v-A
ToStand-Altiare	altfa:	ah-l-t-shh-A
ToTurnIntransitive	torna:	t-oh-r-n-A
ToTurnIntransitive-Gyrare	dgira:	VdPalatoAlveolarSibilant-e-r-A
ToTurnIntransitive-AncestralClass3	dgira:	VdPalatoAlveolarSibilant-e-r-A
ToFall	ffjade	ts-jg-ah-d-ay
ToHold	tinji	t-e-n-jg-e
ToSqueeze	esprimi	ay-s-p-r-e-m-e
ToSqueeze-Stringere	strengi:	s-t-r-eh-n-j-E
ToRub	frea	f-r-ay-ah
ToWash	lava:	l-ah-v-A
ToWipe-Exsucare	suja:	s-u-jg-A
ToPull	tira:	t-e-r-A
ToPull-Pulsare	pulsa:	p-u-l-s-A
ToPull-Trahere	traj	t-r-aj_diphthong
ToThrow-Lanceare	lanffa:	l-ah-n-ts-A
ToTie	lea:	l-ay-A
ToSew	kuzi	k-u-zz-e
ToCount	konta:	k-oh-n-t-A
ToSay	di:	d-E
ToSing-AncestralClass	canta:	tya-ah-n-t-A
ToPlay-Jiocare	dguja:	VdPalatoAlveolarSibilant-u-jg-A
ToFlow-Excurrere	skori:	s-k-oh-r-E
ToFlow-Currere	kori	k-oh-r-e
ToFreeze-Glaciare	glaffa:	j-l-ah-ts-A
ToBurn-Brojan	bruza:	b-r-u-zz-A
All-Totus	dut	d-u-t
Many	mole	m-oh-l-tya
Many-Tantus	tanc	t-ah-n-tya
Few	po:k	p-O-k
Other	altri	ah-l-t-r-e
Big-Grandem	grant	j-r-ah-n-t
Long-Longum	lunk	l-u-n-k
Long-Largum	lark	l-ah-r-k
Thick	gras	j-r-ah-s
Thick-Grossum	grwes	j-r-w-eh-s
Heavy	grevi	j-r-eh-v-e
Heavy-Pesant	pezant	p-ay-zz-ah-n-t
Small-Pitulus	piiful	p-e-ts-u-l
Short	kurt	k-u-r-t
Narrow-Strictus	stret	s-t-r-eh-t
Thin	minu:t	m-e-n-U-t
Thin-Subtilis	suti:l	s-u-t-E-l
Dry	sek	s-eh-k
Right-Directus	'dret	d-r-eh-t
Red	ros	r-euh-s
Green	vert	v-eh-r-t
One	uj	u-nya
Two-Duos	doj	d-oj_diphthong

## Appendix 4 - Word Lists by Language

Three	'tre:	t-r-ai
Four	kwatri	k-w-ah-t-r-e
Five	'fɪŋk	ts-e-nya-k
Here	aki	ah-k-e
Who-Qui	kwi	k-w-e
What	ʃe	ts-ay
When-Quando	kwant	k-w-ah-n-t
How-Quomodo	ʃemu:t	ts-ay-m-U-t
Not	no	n-oh
And-Et	e	ay

### Romanian

Cognate	IPA	Sounds
I	jew	jg-ay-w
We	noj	n-øj_diphthong
YouPlural	voj	v-øj_diphthong
YouSingular	tu	t-u
Woman	femeje	f-ay-m-ay-jg-ay
Woman-Mulier	mujere	m-u-jg-ay-r-ay
Woman-Domina	doamnə	d-midback_diphthong_romanian-m-n-aah
ManHumanBeing	om	oh-m
Wife-Mulier	mujere	m-u-jg-ay-r-ay
Husband	mərit	m-aah-r-e-t
Husband-Socius	sots	s-oh-VIAlveolarSibilantAffricate
Father-Tata	tatə	t-ah-t-aah
Animal	nəmaje	n-aah-m-ah-jg-ay
Fish-Piskem	peʃte	p-ay-shh-t-ay
Bird-Passerem	pasəre	p-ah-s-aah-er-ay
Louse	pədukje	p-aah-d-u-k-jg-ay
Snake	ʃarpe	shh-ah-er-p-ay
Snake-Serpens	ʃarpe	shh-ah-er-p-ay
Worm	vjerme	v-jg-ay-r-m-ay
Tree	arbore	ah-r-b-oh-r-ay
Stick	par	p-ah-er
Fruit	frukt	f-r-u-k-t
Flower	floare	f-l-midback_diphthong_romanian-er-ay
Tail	coadă	tya-midback_diphthong_romanian-d-aah
Feather-Penna	panə	p-ah-n-aah
Hair	pər	p-aah-er
Head	kap	k-ah-p
Head-Testa	tseastə	VIAlveolarSibilantAffricate-midfront_diphthong_romanian-s-t-aah
Ear	ureke	u-r-ay-k-ay
Eye	oki	oh-kpalatal
Nose	nas	n-ah-s
Mouth	bukə	b-u-k-aah
Mouth-Gula	gurə	j-u-er-aah
Breast	san	s-ah-n
Breast-Pectus	pjept	p-jg-ay-p-t
Heart-Anima	inimə	e-n-e-m-aah
Liver	fikat	f-e-k-ah-t
Sun	soare	s-midback_diphthong_romanian-er-ay
Moon	lunə	l-u-n-aah
Star	stea	s-t-midfront_diphthong_romanian
Water	apə	ah-p-aah
Rain	ploaje	p-l-midback_diphthong_romanian-jg-ay



## Appendix 4 - Word Lists by Language

River-Rivus	riw	r-eee-w
Lake	lak	l-ah-k
Sea	mare	m-ah-r-ay
Salt	sare	s-ah-r-ay
Earth	tsarə	VlAlveolarSibilantAffricate-ah-r-aah
Cloud-Secondary	nor	n-oh-r
Fog-Nebula	negurə	n-ay-g-u-r-aah
Fog-Caecia	ʃeafʃə	ts-midfront_diphthong_romanian-ts-aah
Sky	ʃer	ts-ay-er
Wind	vint	v-eee-n-t
Ice	dʒer	VdPalatoAlveolarSibilant-ay-r
Smoke	fum	f-u-m
Fire-Focus	fok	f-oh-k
Ash-Cinisia	ʃenuʃə	ts-ay-n-u-shh-aah
Night	noapte	n-midback_diphthong_romanian-p-t-ay
Day	zi	zz-e
Year	an	ah-n
Name-Nomen	nume	n-u-m-ay
Tongue	limbə	l-e-m-b-aah
ToDrink	bea	b-midfront_diphthong_romanian
ToEat-Manducare	minka	m-eee-n-k-ah
ToBite-Morsicare	murseka	m-u-r-s-ay-k-ah
ToSuck	sudʒe	s-u-VdPalatoAlveolarSibilant-ay
ToSpit-Exconspuere	skujpa	s-k-u-jg-p-ah
ToKnow	ʃti	shh-t-e
ToKnow-Cognoscere	kunoaʃte	k-u-n-midback_diphthong_romanian-shh-t-ay
ToThink	kudʒeta	k-u-VdPalatoAlveolarSibilant-ay-t-ah
ToThink-Pensare	pəsa	p-aah-s-ah
ToFear	teme	t-ay-m-ay
ToSleep	dormi	d-oh-r-m-e
ToLive	via	v-e-ah
ToDie	muri	m-u-r-e
ToKill	neka	n-ay-k-ah
ToKill-Occidere	uʃide	u-ts-e-d-ay
ToFight-Battuere	bate	b-ah-t-ay
ToHit	pulsa	p-u-l-s-ah
ToCut-Excurtare	skurta	s-k-u-r-t-ah
ToCut-Taliare	təja	t-aah-jg-ah
ToSplit	divide	d-e-v-e-d-ay
ToSplit-Separare	separa	s-ay-p-ah-r-ah
ToStab	pundʒe	p-u-n-VdPalatoAlveolarSibilant-ay
ToScratch	rade	r-ah-d-ay
ToSwim-Navigare	naviga	n-ah-v-e-g-ah
ToFly-Exvolare	zbura	zz-b-u-er-ah
ToWalk-Mergere	merdʒe	m-ay-r-VdPalatoAlveolarSibilant-ay
ToCome	veni	v-ay-n-e
ToLieAsInABed	ekstinde	ay-k-s-t-e-n-d-ay
ToLieAsInABed-lacere	zəʃeə	zz-aah-ts-midfront_diphthong_romanian
ToSit	ʃedeə	shh-ay-d-midfront_diphthong_romanian
ToStand	sta	s-t-ah
ToStand-Levare	lua	l-u-ah
ToTurnIntransitive	turna	t-u-r-n-ah
ToTurnIntransitive-Torquere	toartʃe	t-midback_diphthong_romanian-r-ts-ay
ToFall	kədeə	k-aah-d-midfront_diphthong_romanian
ToHold	tsine	VlAlveolarSibilantAffricate-e-n-ay
ToSqueeze	skreme	s-k-r-ay-m-ay
ToSqueeze-Stringere	strindʒe	s-t-r-eee-n-VdPalatoAlveolarSibilant-ay

## Appendix 4 - Word Lists by Language

ToRub	freka	f-r-ay-k-ah
ToWash	la	l-ah
ToWipe-Extergere	ʃterdʒe	shh-t-ay-r-VdPalatoAlveolarSibilant-ay
ToWipe-Exsucare	uska	u-s-k-ah
ToPull-Pulsare	pulsa	p-u-l-s-ah
ToPull-Trahere	tradʒe	t-r-ah-VdPalatoAlveolarSibilant-ay
ToPush	impindʒe	eee-m-p-e-n-VdPalatoAlveolarSibilant-ay
ToThrow-Eruncare	aruŋka	ah-er-u-nya-k-ah
ToTie	lega	l-ay-j-ah
ToSew	coase	tya-midback_diphthong_romanian-s-ay
ToCount-Enumerare	numara	n-u-m-ah-r-ah
ToSay	ziʃe	zz-e-ts-ay
ToSay-Exponere	spune	s-p-u-n-ay
ToSing-AncestralClass	kinta	k-eee-n-t-ah
ToPlay-Jiocare	zuka	gzah-u-k-ah
ToFloat	fluctua	f-l-u-tya-t-u-ah
ToFlow-Excurrere	skurdʒe	s-k-u-er-VdPalatoAlveolarSibilant-ay
ToFlow-Currere	kurdʒe	k-u-er-VdPalatoAlveolarSibilant-ay
ToFreeze-Inglaciare	ingetsa	eee-n-j-ay-VAlveolarSibilantAffricate-ah
ToBurn-Ardere	arde	ah-er-d-ay
ToBurn-Incendere	inʃindʒe	eee-n-ts-e-n-d-gzah-ay
ToBurn-AncestralClass8	ustura	u-s-t-u-r-ah
All-Totus	tot	t-oh-t
Many	mult	m-u-l-t
Other	alt	ah-l-t
Big-Majjorem	mare	m-ah-er-ay
Long-Longum	lung	l-u-n-j
Long-Largum	larg	l-ah-r-j
Wide	lat	l-ah-t
Thick	gras	g-r-ah-s
Thick-Grossum	gros	j-r-oh-s
Heavy	grew	j-er-ay-w
Small-Pittinus	putsin	p-u-VAlveolarSibilantAffricate-e-n
Narrow	ingust	eee-nya-j-u-s-t
Narrow-Strictus	strimt	s-t-r-eee-m-t
Thin	mərunt	m-aah-r-u-n-t
Thin-Subtilis	subtsire	s-u-b-VAlveolarSibilantAffricate-e-r-ay
Dry	sek	s-ay-k
Right-Directus	drept	d-er-ay-p-t
Red	roʃu	er-oh-shh-u
Red-Rubeus	rojʃb	r-oj_diphthong-b
Green	verde	v-ay-er-d-ay
Yellow	galben	g-ah-l-b-ay-n
White	alb	ah-l-b
One	unu	u-n-u
Two-Duos	doj	d-oj_diphthong
Two-Duae	dowə	d-oh-w-aah
Three	trej	t-r-ej_diphthong
Four	patru	p-ah-t-r-u
Five	ʃiŋʃ	ts-e-n-ts
There	la	l-ah
Who-Quem	ʃine	ts-e-n-ay
What	ʃe	ts-ay
When-Quando	kind	k-eee-n-d
How-Quomodo	kum	k-u-m
Not	nu	n-u
And-Et	e	ay

## Appendix 4 - Word Lists by Language

And-Si	ŋi	shh-e
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## Appendix 5 - Segment Groups

### Pulmonic Consonants

Manner	Bilabial	Labial-Velar	Labio-Dental	Linguo-Labial	Dental	Alveolar	Post-Alveolar	Retroflex	Palatal	Velar	Uvular	Pharyngeal Epiglottal	Glottal
Nasal	m					n			ɲ	ŋ			
Stop	p b	k <sup>w</sup> g <sup>w</sup>				t d			k <sup>j</sup> ɟ	k g			
Sibilant, Fricative						s z	ʃ ʒ						
Fricative	β		f v		θ ð				ç ʝ	x ɣ	ʁ		h
Approximant								ɻ	j				
Tap/Flap						ɾ							
Trill						r					R		
Lateral, Fricative													
Lateral, Approximant						l			ʎ				
Lateral, Tap/Flap													

Shaded areas denote articulations judged to be impossible. Where symbols appear in pairs, the one to the right represents a modally voiced consonant.

### Non-Pulmonic Consonants

Manner	Bilabial	Labio-Dental	Velar	Uvular	Pharyngeal Epiglottal
Ejective, Stop					
Ejective, Fricative					
Ejective, Lateral, Fricative					
Tenuis, Click					
Nasal, Click					
Tenuis, Lateral, Click					
Implosive					

Shaded areas denote articulations judged to be impossible. Where symbols appear in pairs, the one to the right represents a modally voiced consonant.

## Appendix 5 - Segment Groups

### Vowels

	Front	Near-Front	Central	Near-Back	Back
Close	i • y		ɨ		u
Near-close		ɪ		ʊ	
Close-mid	e • ø		ə		o
Mid					
Open-mid		œ • ɛ			ɔ
Near-open			ɐ		
Open		a			ɑ

Where symbols appear in pairs, the one to the right represents a rounded vowel.

### Long Vowels

	Front	Near-Front	Central	Near-Back	Back
Close	iː				uː
Mid	eː				oː
Open-mid		ɛː			ɔː
Open	øː		aː		ɑː

### Pulmonic Affricates

Manner	Bilabial	Labio-Dental	Alveolar	Palato-Alveolar	Velar	Uvular	Pharyngeal Epiglottal	Glottal
Sibilant			ts	tʃ				
Non-Sibilant								
Lateral								

Shaded areas denote articulations judged to be impossible.

### Ejective Affricates

Manner	Bilabial	Labio-Dental	Pharyngeal Epiglottal	Glottal
Central				
Lateral				

Shaded areas denote articulations judged to be impossible.

## Appendix 5 - Segment Groups

### Other Segments

<b>e</b> Close-mid Front Vocoid Vowel Continuant	<b>g</b> Velar Voiced Pulmonic Stop Occlusive
<b>oː</b> Mid Back Rounded Vocoid Long Vowel Continuant	<b>ʒ</b> Post-Alveolar Voiced Pulmonic Sibilant Fricative Strident Obstruent Continuant
<b>ə</b> Close-mid Central Vowel	<b>j</b> Palatal Voiced Pulmonic Fricative Obstruent Continuant
<b>o</b> Close-mid Back Rounded Vocoid Vowel Continuant	<b>i</b> Close Front Vocoid Vowel Continuant
<b>w</b> Labial-Velar Vocoid Semivowel Voiced Approximant Continuant	<b>ɔ</b> Open-mid Back Rounded Vocoid Vowel Continuant
<b>dʒ</b> Palato-Alveolar Voiced Sibilant Affricate	<b>ɪ</b> Near-close Near-Front Vowel
<b>j</b> Palatal Vocoid Semivowel Voiced Pulmonic Approximant Continuant	<b>n</b> Alveolar Voiced Pulmonic Nasal Occlusive
<b>s</b> Alveolar Pulmonic Sibilant Fricative Strident Obstruent Continuant	<b>u</b> Close Back Rounded Vocoid Vowel Continuant
<b>ʃ</b> Post-Alveolar Pulmonic Sibilant Fricative Strident Obstruent Continuant	<b>oj</b> Mid Front Vowel Diphthong
<b>v</b> Labio-Dental Voiced Pulmonic Fricative Strident Obstruent Continuant	<b>b</b> Bilabial Voiced Pulmonic Stop Occlusive
<b>t</b> Alveolar Pulmonic Stop Occlusive	<b>uː</b> Close Back Rounded Long Vowel
<b>y</b> Close Front Rounded Vocoid Vowel Continuant	<b>d</b> Alveolar Voiced Pulmonic Stop Occlusive
<b>f</b> Labio-Dental Pulmonic Fricative Strident Obstruent Continuant	<b>eː</b> Mid Front Vocoid Long Vowel Continuant
<b>m</b> Bilabial Voiced Pulmonic Nasal Occlusive	<b>a</b> Open Near-Front Vocoid Vowel Continuant
<b>ɾ</b> Alveolar Voiced Pulmonic Tap/Flap Rhotic Vibrant Liquid	<b>ɐ</b> Near-open Central Rounded Vowel
<b>œ</b> Open-mid Near-Front Rounded Vocoid Vowel Continuant	<b>ɛ</b> Open-mid Near-Front Vocoid Vowel Continuant
<b>l</b> Alveolar Vocoid Voiced Pulmonic Lateral Approximant Rhotic Liquid	<b>r</b> Alveolar Voiced Pulmonic Trill Rhotic Vibrant Liquid
<b>x</b> Velar Pulmonic Fricative Obstruent Continuant	<b>ʎ</b> Palatal Vocoid Voiced Pulmonic Lateral Approximant Rhotic Liquid
<b>ʁ</b> Uvular Voiced Pulmonic Fricative Rhotic Strident Obstruent Continuant Liquid	<b>iː</b> Close Front Vocoid Long Vowel Continuant
<b>ɲ</b> Palatal Voiced Pulmonic Nasal Occlusive	<b>o</b> Mid Front Vowel Diphthong
<b>h</b> Glottal Pulmonic Fricative	<b>ẽj</b> Mid Front Nasal Vowel Diphthong
<b>ɔ̃</b> Open-mid Back Rounded Nasal Vowel	<b>ã</b> Near-close Back Nasal Vowel
<b>ĩ</b> Close Front Nasal Vowel	<b>ẽ</b> Near-open Central Rounded Nasal Vowel
<b>ʈʂ</b> Palato-Alveolar Pulmonic Sibilant Affricate	<b>ɨ</b> Close Central Vowel

## Appendix 5 - Segment Groups

<b>p</b> Bilabial Pulmonic Stop Occlusive	<b>z</b> Alveolar Voiced Pulmonic Sibilant Fricative Strident Obstruent Continuant
<b>ð</b> Dental Voiced Pulmonic Fricative Obstruent Continuant	<b>k</b> Velar Pulmonic Stop Occlusive
<b>ts</b> Alveolar Pulmonic Sibilant Affricate Occlusive Strident	<b>a:</b> Open Central Vowel Long Vowel Continuant
<b>ẽj</b> Mid Front Nasal Vowel Diphthong	<b>ʀ</b> Uvular Pulmonic Trill Rhotic Vibrant Liquid
<b>aj</b> Mid Front Vowel Diphthong	<b>ɛ:</b> Open-mid Near-Front Vowel Long Vowel Continuant
<b>θ</b> Dental Pulmonic Fricative Obstruent Continuant	<b>ej</b> Mid Front Vowel Diphthong
<b>ɐj</b> Mid Front Vowel Diphthong	<b>õ</b> Close-mid Back Rounded Nasal Vowel
<b>ẽ</b> Close Back Nasal Vowel	<b>β</b> Bilabial Voiced Pulmonic Fricative Obstruent Continuant
<b>ɭ</b> Alveolar Voiced Velarized Pulmonic Lateral Approximant	<b>ɥ</b> Labial-Palatal Vowel Semivowel Voiced Approximant Continuant
<b>ø:</b> Open Front Rounded Vowel Long Vowel	<b>a</b> Mid Front Vowel Diphthong
<b>ø</b> Close-mid Front Rounded Vowel Vowel Continuant	<b>c</b> Palatal Pulmonic Stop Occlusive
<b>e</b> ^ Mid Front Vowel Diphthong	<b>k<sup>j</sup></b> Palatal Pulmonic Stop
<b>g</b> Velar Voiced Pulmonic Stop Occlusive	<b>ɑ</b> Open Back Vowel Vowel Continuant
<b>ɔ:</b> Open-mid Back Rounded Vowel Long Vowel Continuant	<b>ɣ</b> Velar Voiced Pulmonic Fricative Obstruent Continuant
<b>ɛj</b> Mid Front Vowel Diphthong	<b>k</b> Labial-Velar Pulmonic Stop Occlusive
<b>ẽ:</b> Close Back Long Nasal Vowel	<b>dz</b> Alveolar Voiced Sibilant Affricate
<b>ŋ</b> Velar Voiced Pulmonic Nasal Occlusive	<b>g</b> Labial-Velar Voiced Pulmonic Stop Occlusive
<b>ẽ</b> Mid Front Nasal Vowel Diphthong	<b>ʃ</b> Palatal Voiced Pulmonic Stop Occlusive
<b>ẽ</b> Open-mid Near-Front Nasal Vowel	<b>ũ</b> Open Back Nasal Vowel
<b>ɭ</b> Retroflex Vowel Voiced Pulmonic Approximant Rhotic Liquid	<b>ç</b> Palatal Pulmonic Fricative Obstruent Continuant
<b>ɑ:</b> Open Back Long Vowel	<b>ĩ</b> Palatal Nasal Approximant

## Appendix 5 - Segment Groups

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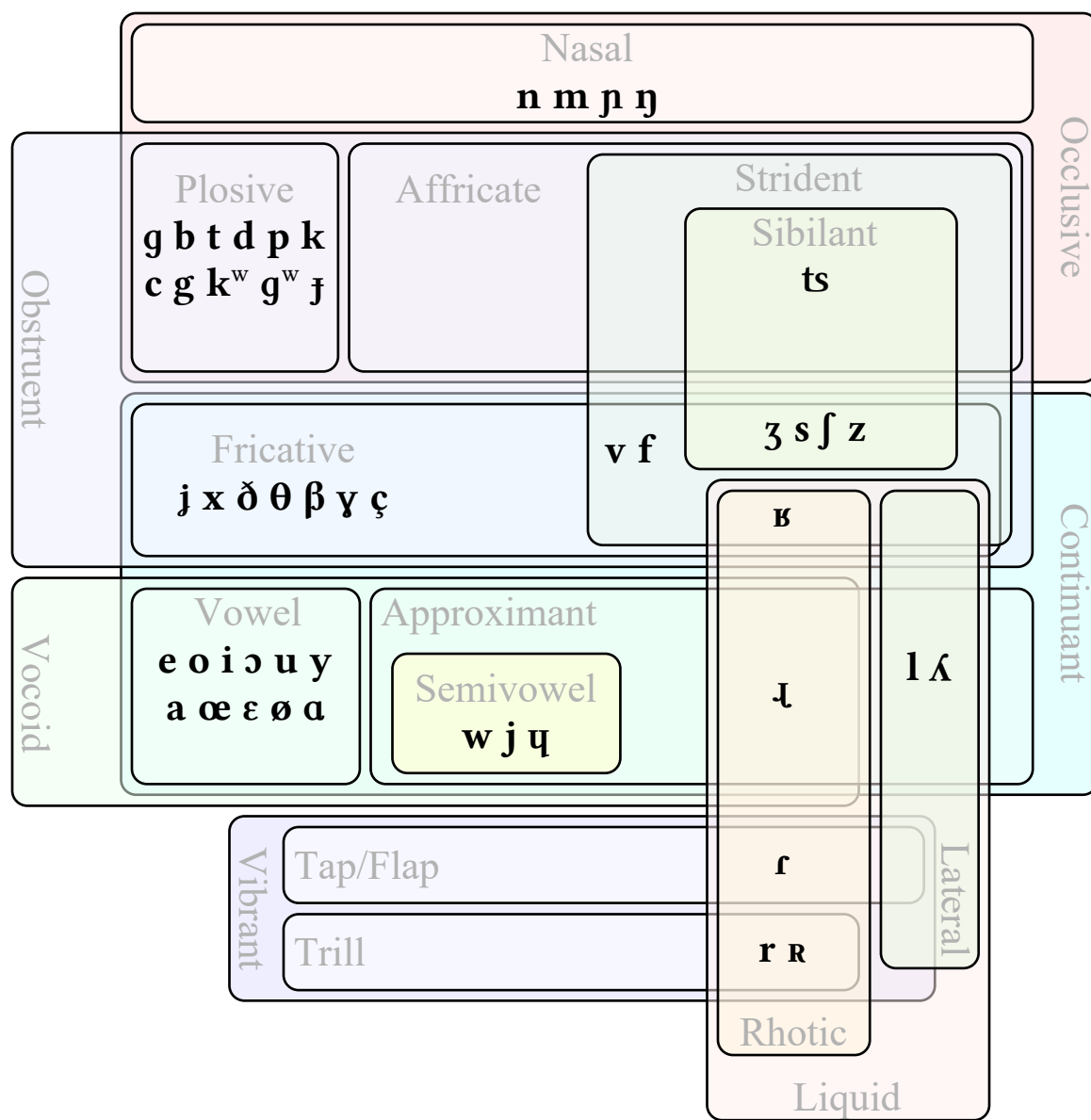
œ̃ Open-mid Near-Front Rounded Nasal Vowel Diphthong

ʊ Near-close Near-Back Rounded Vowel

ẽ  
Mid Front Nasal Vowel Diphthong



## Appendix 6 - Euler Feature Diagram



## Appendix 7 - International Phonetic Alphabet

### IPA Segments

ẽ	θ	β	ʈʃ
1EBD Close Back Nasal Vowel	03B8 Dental Pulmonic Fricative Obstruent Continuant	03B2 Bilabial Voiced Pulmonic Fricative Obstruent Continuant	02A7 Palato-Alveolar Pulmonic Sibilant Affricate
ʈʂ	ɖʒ	ɖʒ	ɟ
02A6 Alveolar Pulmonic Sibilant Affricate Occlusive Strident	02A4 Palato-Alveolar Voiced Sibilant Affricate	02A3 Alveolar Voiced Sibilant Affricate	029D Palatal Voiced Pulmonic Fricative Obstruent Continuant
ʒ	ʎ	ʊ	ʃ
0292 Post-Alveolar Voiced Pulmonic Sibilant Fricative Strident Obstruent Continuant	028E Palatal Vocoid Voiced Pulmonic Lateral Approximant Rhotic Liquid	028A Near-close Near-Back Rounded Vowel	0283 Post-Alveolar Pulmonic Sibilant Fricative Strident Obstruent Continuant
ʁ	ʀ	ɽ	ɻ
0281 Uvular Voiced Pulmonic Fricative Rhotic Strident Obstruent Continuant Liquid	0280 Uvular Pulmonic Trill Rhotic Vibrant Liquid	027E Alveolar Voiced Pulmonic Tap/Flap Rhotic Vibrant Liquid	027B Retroflex Vocoid Voiced Pulmonic Approximant Rhotic Liquid
ɲ	ɭ	ɪ	ɨ
0272 Palatal Voiced Pulmonic Nasal Occlusive	026B Alveolar Voiced Velarized Pulmonic Lateral Approximant	026A Near-close Near-Front Vowel	0268 Close Central Vowel
ɥ	ʏ	ɣ	ʝ
0265 Labial-Palatal Vocoid Semivowel Voiced Approximant Continuant	0263 Velar Voiced Pulmonic Fricative Obstruent Continuant	0261 Velar Voiced Pulmonic Stop Occlusive	025F Palatal Voiced Pulmonic Stop Occlusive
ɛ	ə	ɔ	ɑ
025B Open-mid Near-Front Vocoid Vowel Continuant	0259 Close-mid Central Vowel	0254 Open-mid Back Rounded Vocoid Vowel Continuant	0251 Open Back Vocoid Vowel Continuant

## Appendix 7 - International Phonetic Alphabet

ɐ	ũ	œ	ŋ
0250	0169	0153	014B
Near-open Central Rounded Vowel	Open Back Nasal Vowel	Open-mid Near-Front Rounded Vowel Vocoid Vowel Continuant	Velar Voiced Pulmonic Nasal Occlusive
ĩ	ø	õ	ð
0129	00F8	00F5	00F0
Close Front Nasal Vowel	Close-mid Front Rounded Vowel Vocoid Vowel Continuant	Close-mid Back Rounded Nasal Vowel	Dental Voiced Pulmonic Fricative Obstruent Continuant
ç	ʒ	y	x
00E7	007A	0079	0078
Palatal Pulmonic Fricative Obstruent Continuant	Alveolar Voiced Pulmonic Sibilant Fricative Strident Obstruent Continuant	Close Front Rounded Vowel Vocoid Vowel Continuant	Velar Pulmonic Fricative Obstruent Continuant
w	v	u	t
0077	0076	0075	0074
Labial-Velar Vocoid Semivowel Voiced Approximant Continuant	Labio-Dental Voiced Pulmonic Fricative Strident Obstruent Continuant	Close Back Rounded Vowel Vocoid Vowel Continuant	Alveolar Pulmonic Stop Occlusive
s	r	p	o
0073	0072	0070	006F
Alveolar Pulmonic Sibilant Fricative Strident Obstruent Continuant	Alveolar Voiced Pulmonic Trill Rhotic Vibrant Liquid	Bilabial Pulmonic Stop Occlusive	Close-mid Back Rounded Vowel Vocoid Vowel Continuant
n	m	l	k
006E	006D	006C	006B
Alveolar Voiced Pulmonic Nasal Occlusive	Bilabial Voiced Pulmonic Nasal Occlusive	Alveolar Vocoid Voiced Pulmonic Lateral Approximant Rhotic Liquid	Velar Pulmonic Stop Occlusive
j	i	h	g
006A	0069	0068	0067
Palatal Vocoid Semivowel Voiced Pulmonic Approximant Continuant	Close Front Vocoid Vowel Continuant	Glottal Pulmonic Fricative	Velar Voiced Pulmonic Stop Occlusive

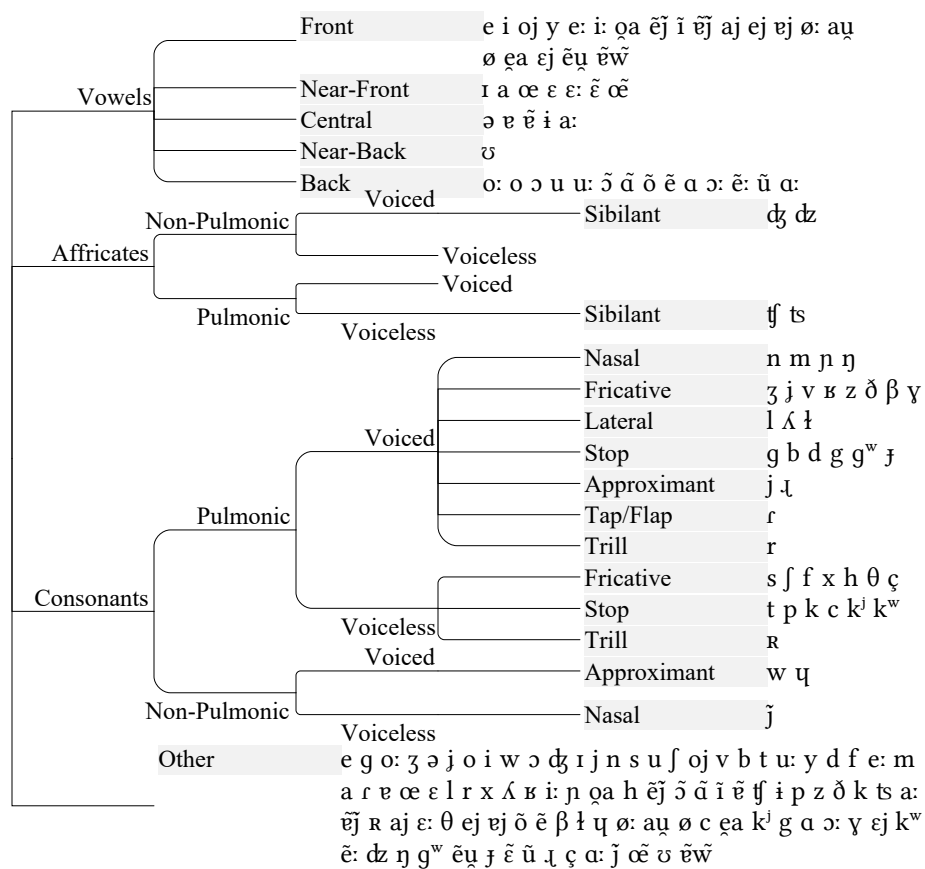
## Appendix 7 - International Phonetic Alphabet

<b>f</b>	<b>e</b>	<b>d</b>	<b>c</b>
0066 Labio-Dental Pulmonic Fricative Strident Obstruent Continuant	0065 Close-mid Front Vocoid Vowel Continuant	0064 Alveolar Voiced Pulmonic Stop Occlusive	0063 Palatal Pulmonic Stop Occlusive
<b>b</b>	<b>a</b>	<b>ẽ:</b>	<b>g<sup>w</sup></b>
0062 Bilabial Voiced Pulmonic Stop Occlusive	0061 Open Near-Front Vocoid Vowel Continuant	1EBD, 02D0 Close Back Long Nasal Vowel	0261, 02B7 Labial-Velar Voiced Pulmonic Stop Occlusive
<b>ẽ</b>	<b>ε:</b>	<b>εj</b>	<b>õ</b>
025B, 0303 Open-mid Near-Front Nasal Vowel	025B, 02D0 Open-mid Near-Front Vocoid Long Vowel Continuant	025B, 006A Mid Front Vowel Diphthong	0254, 0303 Open-mid Back Rounded Nasal Vowel
<b>ɔ:</b>	<b>ã</b>	<b>ɑ:</b>	<b>ẽ</b>
0254, 02D0 Open-mid Back Rounded Vocoid Long Vowel Continuant	0251, 0303 Near-close Back Nasal Vowel	0251, 02D0 Open Back Long Vowel	0250, 0303 Near-open Central Rounded Nasal Vowel
<b>ɛj</b>	<b>œ</b>	<b>ø:</b>	<b>u:</b>
0250, 006A Mid Front Vowel Diphthong	0153, 0303 Open-mid Near-Front Rounded Nasal Vowel Diphthong	00F8, 02D0 Open Front Rounded Vocoid Long Vowel	0075, 02D0 Close Back Rounded Long Vowel
<b>o:</b>	<b>oj</b>	<b>k<sup>w</sup></b>	<b>k<sup>j</sup></b>
006F, 02D0 Mid Back Rounded Vocoid Long Vowel Continuant	006F, 006A Mid Front Vowel Diphthong	006B, 02B7 Labial-Velar Pulmonic Stop Occlusive	006B, 02B2 Palatal Pulmonic Stop
<b>ĩ</b>	<b>i:</b>	<b>e:</b>	<b>ej</b>
006A, 0303 Palatal Nasal Approximant	0069, 02D0 Close Front Vocoid Long Vowel Continuant	0065, 02D0 Mid Front Vocoid Long Vowel Continuant	0065, 006A Mid Front Vowel Diphthong

## Appendix 7 - International Phonetic Alphabet

aː	aj	ẽu̯	ẽj̃
0061, 02D0 Open Central Vowoid Long Vowel Continuant	0061, 006A Mid Front Vowel Diphthong	1EBD, 0075, 032F Mid Front Nasal Vowel Diphthong	1EBD, 006A, 0303 Mid Front Nasal Vowel Diphthong
ɔa	ɛa	au̯	ẽw̃
006F, 032F, 0061 Mid Front Vowel Diphthong	0065, 032F, 0061 Mid Front Vowel Diphthong	0061, 0075, 032F Mid Front Vowel Diphthong	0250, 0303, 0077, 0303 Mid Front Nasal Vowel Diphthong
ẽj̃			
0250, 0303, 006A, 0303 Mid Front Nasal Vowel Diphthong			

## Appendix 8 - Feature Tree



## Appendix 9 - Diacritics

## Diacritics

	Undefined escape character	~	Nasalized	..	Centralized
+	Advanced	-	Retracted	∨	RisingTone
°	Voiceless		Implosive	,	Syllabic
'	Ejective	ɿ	Pharyngealized	˘	Falling tone
)	Non-syllabic	ˀ	No audible release	◌̤	Rhotic hook
-	Advanced tongue root	◌̥	Apical	˙	Extra low tone
☒	Low rising tone	◌̦	Less rounded	◌̪	Dental
˜	Velarized or Pharyngealized	↘	Global fall	◌̠	Velarized
ˈ	High tone	☒	High rising tone	h	Aspirated
j	Palatalized	˝	Creaky voiced	ˉ	Low tone
l	Lateral release	-	Mid tone	◌̹	Laminal
ᵐ	Linguo-Labial	n	Nasal release	◌̽	More rounded
ː	Lowered	Ɑ	Retracted tongue root	↗	Global rise
☒	Rising falling tone	ˑ	Raised	˚	Extra high tone
˞	Breathy voiced	ˋ	Voiced	w	Labialized
◌̣	Extra short	x	Mid-centralized	↓	Down-step
↑	Up-step	ː	Long	˙	Half-long
	Indeterminacy in french vowels		Begin Non-segmental notation		End non-segmental notation
ʕ	Voiced epiglottal fricative	!	Post-alveolar click		Minor group
	Dental click		Major group		Alveolar lateral click
‡	Palatal click	◌̯	Voiceless descender	-	Combining macron
◌̸	Tie-bar below	(	Tie-bar above	†	Ready made combination
→	Becomes		Separator		

## Appendix 10 - Languages

### Latin

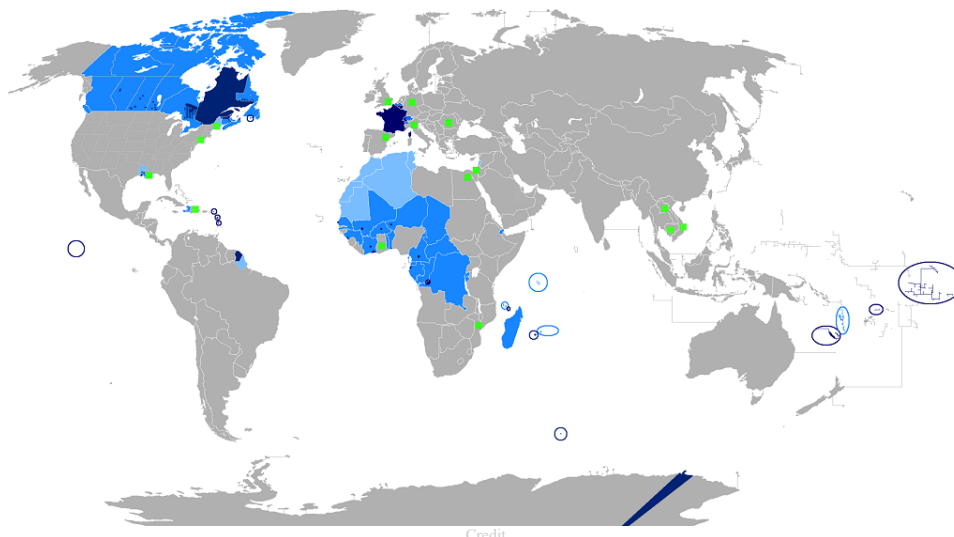


A classical language belonging to the Italic branch of the Indo-European languages. Latin was originally spoken in the area around Rome, known as Latium. Through the power of the Roman Republic, it became the dominant language in Italy, and subsequently throughout the western Roman Empire, before eventually becoming a dead language. Latin has contributed many words to the English language. In particular, Latin (and Ancient Greek) roots are used in English descriptions of theology, the sciences, medicine, and law.

By the late Roman Republic (75 BC), Old Latin had been standardised into Classical Latin. Vulgar Latin was the colloquial form spoken at that time and attested in inscriptions and the works of comic playwrights like Plautus and Terence[3] and author Petronius. Late Latin is the written language from the 3rd century; its colloquial form Vulgar Latin developed in the 6th to 9th centuries into the Romance languages, such as Italian, Sardinian, Venetian, Neapolitan, Sicilian, Piedmontese, Lombard, French, Franco-Provençal, Occitan, Corsican, Ladin, Friulan, Romansh, Catalan/Valencian, Aragonese, Spanish, Asturian, Galician, and Portuguese. Medieval Latin was used as a literary language from the 9th century to the Renaissance which used Renaissance Latin. Later, Early Modern Latin and New Latin evolved. Latin was the language of international communication, scholarship and science until well into the 18th century, when vernaculars (including the Romance languages) supplanted it. Ecclesiastical Latin remains the official language of the Holy See and the Roman Rite of the Catholic Church. Latin is a highly inflected language, with three distinct genders, six or seven noun cases, five declensions, four verb conjugations, six tenses, three persons, three moods, two voices, two or three aspects, and two numbers. The Latin alphabet is derived from the Etruscan and Greek alphabets and ultimately from the Phoenician alphabet.



### French

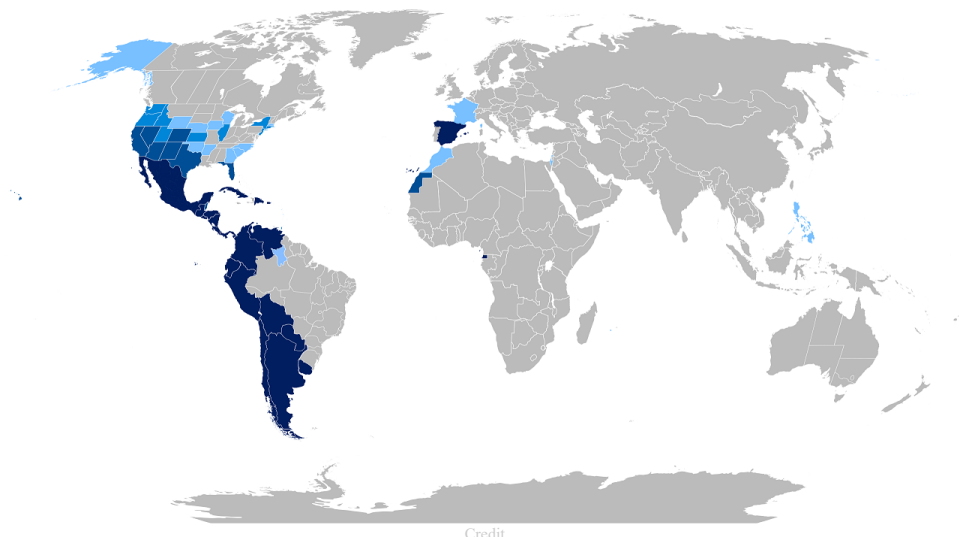


A Romance language of the Indo-European family. It descended from the Vulgar Latin of the Roman Empire, as did all Romance languages. French evolved from Gallo-Romance, the Latin spoken in Gaul, and more specifically in Northern Gaul. Its closest relatives are the other langues d'oïl—languages historically spoken in northern France and in southern Belgium, which French (Francien) largely supplanted.

French was also influenced by native Celtic languages of Northern Roman Gaul like Gallia Belgica and by the (Germanic) Frankish language of the post-Roman Frankish invaders. Today, owing to France's past overseas expansion, there are numerous French-based creole languages, most notably Haitian Creole. A French-speaking person or nation may be referred to as Francophone in both English and French.

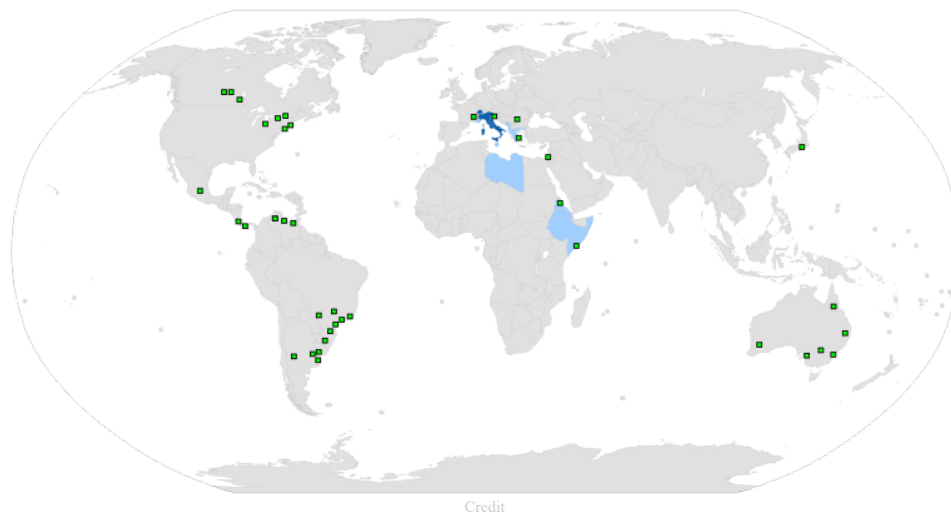
French is an official language in 29 countries across multiple continents, most of which are members of the Organisation internationale de la Francophonie (OIF), the community of 84 countries which share the official use or teaching of French. French is also one of six official languages used in the United Nations. It is spoken as a first language (in descending order of the number of speakers) in France; the Democratic Republic of Congo; Algeria; Morocco; Canada (provinces of Quebec, Ontario and New Brunswick as well as other Francophone regions); Cameroon; Belgium (Wallonia and the Brussels-Capital Region); Ivory Coast; Tunisia; western Switzerland (Romandy—all or part of the cantons of Bern, Fribourg, Geneva, Jura, Neuchâtel, Vaud, Valais); Monaco; parts of Luxembourg; parts of the United States (the states of Louisiana, Maine, New Hampshire and Vermont); northwestern Italy (autonomous region of Aosta Valley); and various communities elsewhere.

### Spanish



A Romance language that originated in the Iberian Peninsula of Europe. Today, it is a global language with nearly 500 million native speakers, mainly in Spain and the Americas. It is the world's second-most spoken native language after Mandarin Chinese, and the world's fourth-most spoken language overall after English, Mandarin Chinese, and Hindi.

### Italian



A Romance language of the Indo-European language family. Italian is the closest national language to Latin, from which it descends via vulgar Latin of the Roman Empire. Taking into account both national and regional languages, it is seen that Italian and Sardinian are together the least differentiated from Latin. Italian is an official language in Italy, Switzerland (Ticino and the Grisons), San Marino, and Vatican City. It has an official minority status in western Istria (Croatia and Slovenia).

It formerly had official status in Albania, Malta, Monaco, Montenegro (Kotor), Greece (Ionian Islands and Dodecanese), and is generally understood in Corsica by Corsican speakers (many linguists classify Corsican as an Italian dialect). It used to be an official language in the former colonial areas of Italian East Africa and Italian North Africa, where it still has a significant role in various sectors.

Italian is also spoken by large immigrant and expatriate communities in the Americas and Australia. Italian is included under the

## Appendix 10 - Languages

languages covered by the European Charter for Regional or Minority languages in Bosnia and Herzegovina and in Romania, although Italian is neither a co-official nor a protected language in these countries. Many speakers of Italian are native bilinguals of both Italian (either in its standard form or regional varieties) and another regional language of Italy.

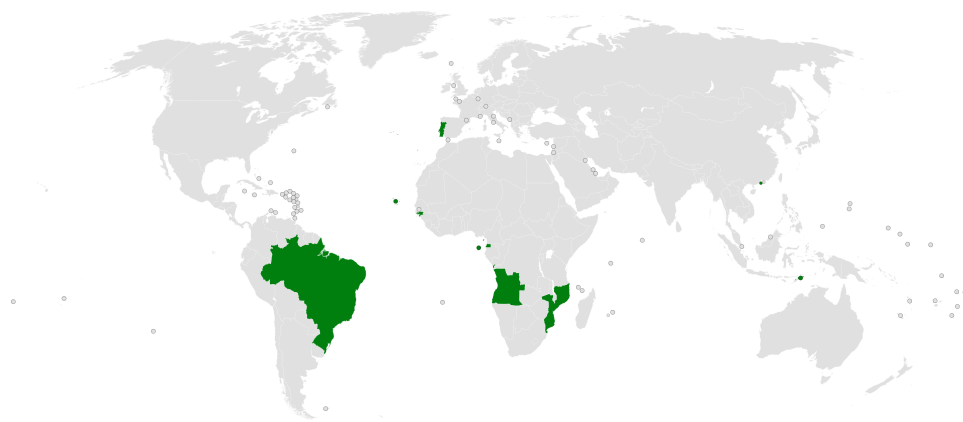
### Brazilian Portuguese



Credit

The set of dialects of the Portuguese language native to Brazil and the most influential form of Portuguese worldwide. It is spoken by almost all of the 200 million inhabitants of Brazil and spoken widely across the Brazilian diaspora, today consisting of about two million Brazilians who have emigrated to other countries. With a population of over 205 million, Brazil is by far the world's largest Portuguese-speaking nation and the only one in the Americas.

### Portuguese



Credit

A Romance language originating in the Iberian Peninsula of Europe. It is the sole official language of Portugal, Angola, Mozambique, Guinea-Bissau, Cape Verde, São Tomé and Príncipe, and Brazil, while having co-official language status in East Timor, Equatorial Guinea, and Macau. A Portuguese-speaking person or nation is referred to as "Lusophone" (lusófono). As the result of expansion during colonial times, a cultural presence of Portuguese and Portuguese creole speakers are also found around the world. Portuguese is part of the Ibero-Romance group that evolved from several dialects of Vulgar Latin in the medieval Kingdom of Galicia and the County of Portugal, and has kept some Celtic phonology and its lexicon.

## Appendix 10 - Languages

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### Catalan



Credit

Catalan (/ˈkætələn, -æn, ˌkætəˈlæn/; autonym: *català* or *llengua catalana*; Eastern Catalan: [kətəˈla]), known in the Valencian Community and Carche as Valencian, is a Western Romance language derived from Vulgar Latin. It is the official language of Andorra, and a co-official language of three autonomous communities in eastern Spain: Catalonia, the Valencian Community and the Balearic Islands. It also has semi-official status in the Italian comune of Alghero. It is also spoken in the Pyrénées-Orientales department of France and in two further areas in eastern Spain: the eastern strip of Aragon and the Carche area in the Region of Murcia. The Catalan-speaking territories are often called the *Països Catalans* or "Catalan Countries".

The language evolved from Vulgar Latin in the Middle Ages around the eastern Pyrenees. Nineteenth-century Spain saw a Catalan literary revival, culminating in the early 1900s.

### Walloon



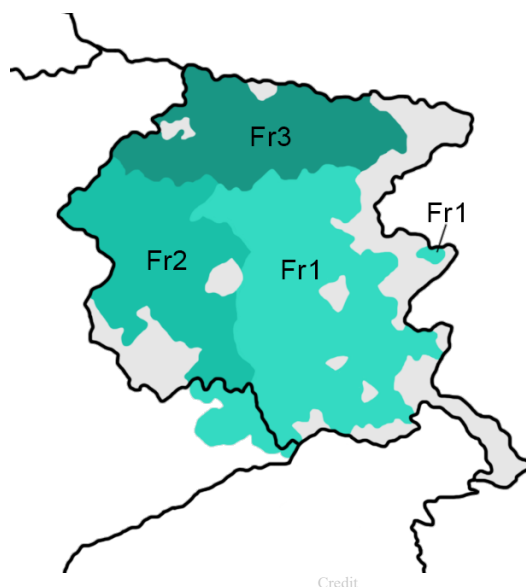
Credit

## Appendix 10 - Languages

A Romance language that is spoken in much of Wallonia and (to small extent) in Brussels, Belgium; some villages near Givet, northern France; a clutch of communities in northeastern Wisconsin, U.S.; and in some parts of Canada. It belongs to the langue d'oïl language family, the most prominent member of which is the French language. The historical background of its formation was the territorial extension since 980 of the Principality of Liège to the south and west.

Despite its rich literature, beginning anonymously in the 16th century and with well-known authors since 1756, the use of Walloon has decreased markedly since France's annexation of Wallonia in 1795. This period definitively established French as the language of social promotion, far more than it was before. After World War I, public schools provided French-speaking education to all children, inducing a denigration of Walloon, especially when accompanied by official orders in 1952 to punish its use in schools. Subsequently, since the middle of the 20th century, generational transmission of the language has decreased, resulting in Walloon almost becoming a dead language. Today it is scarcely spoken among younger people, with vast majority of its native speakers being the elderly (aged 65 and over). In 2007, the number of people with knowledge of the language was estimated at 600,000.

### Friulian



Friulian (/friˈuːliən/ free-OO-lee-ən) or Friulan (natively About this soundfurlan or marilenghe; Italian: friulano; German: Furlanisch; Slovene: furlanščina) is a Romance language belonging to the Rhaeto-Romance family, spoken in the Friuli region of northeastern Italy. Friulian has around 600,000 speakers, the vast majority of whom also speak Italian.

It is sometimes called Eastern Ladin since it shares the same roots as Ladin, but over the centuries, it has diverged under the influence of surrounding languages, including German, Italian, Venetian, and Slovene. Documents in Friulian are attested from the 11th century and poetry and literature date as far back as 1300. By the 20th century, there was a revival of interest in the language.

### Romanian



Credit

Romanian (obsolete spellings: Rumanian or Roumanian; autonym: *limba română* ['limba ro'minə] (About this soundlisten), or *românește*, lit. 'in Romanian') is a Balkan Romance language spoken by approximately 24–26 million people as a native language, primarily in Romania and Moldova, and by another 4 million people as a second language. According to another estimate, there are about 34 million people worldwide who can speak Romanian, of whom 30 million speak it as a native language. It is an official and national language of both Romania and Moldova and is one of the official languages of the European Union.

Romanian is a part of the Eastern Romance sub-branch of Romance languages, a linguistic group that evolved from several dialects of Vulgar Latin which separated from the Western Romance languages in the course of the period from the 5th to the 8th centuries. To distinguish it within the Eastern Romance languages, in comparative linguistics it is called Daco-Romanian as opposed to its closest relatives, Aromanian, Megleno-Romanian and Istro-Romanian. Romanian is also known as Moldovan in Moldova, although the Constitutional Court of Moldova ruled in 2013 that "the official language of the republic is Romanian".