

Taller en CHARTA, 2015

# **Tratamientos digitales de textos españoles**

## **Teoría y prácticas**

**Cronología relativa del español medieval**  
**Variación gramatical del español moderno**

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Gotemburgo, 16 de octubre

# 1. Búsqueda avanzada de ítems

## (1) Comodín: #, &, %

#: Frontera de palabra

&: Secuencia de igual o más de una letra:  $\geq 1$

%: Secuencia de igual o más de zero letras:  $\geq 0$

#y#	Tornaua la cabeça <code>{*&amp;*</code> estaua los catando
&t#	El <code>{*abbat*</code> do<n> sancho x<pisti>ano del c<ri>ador
&d#	Bie<n> las <code>{*abastad*</code> yo assi uos lo ma<n>do
&<n>n&	se vos torne amal seso ni<n> <code>{*adapn&lt;n&gt;o*</code> ca
&nn&	es <code>{*anno*</code> . & desempare. & si ouiere baruechos

## (2) Literal

#de#	Alli pienssan { <i>*de*</i> } aguiiar alli suelta<n> las Riendas
#pora#	Esto la ni<n>na dixo & tornos { <i>*pora*</i> } su casa
%qua%	{ <i>*equa&lt;n&gt;to*</i> } a de la vna cibdat

## (3) Escape: \

#\&#	Tornaua la cabeça { <i>*&amp;*</i> } estaua los catando
------	---

## (4) Grupo: [\*\*\*]

%[mnu]i%	deuiernes. ante alcaldes. amos foren { <i>*abenidos*</i> } ua=yan
%[mnu]j%	Ante lo auje { <i>*comjdo*</i> }: tanto era gloton.

## (5) Negación: [^\*\*\*]

#ff&	Fem ante uos yo & u<uest>ras { *ffijas* } yffantes son & de dias *
#f[^f ]&	alguna destas cosas no<n> { *fa=gamos* }
#rr&	el leo<n> ala { *rraposa* } la vianda mando dar
#r[^r ]&	al Rey q<ue>l dixiese aq<ue>llas { *ra=zones* }

## (6) Selección: (\*|\*)

%\C(<r\V   \Vr>)%	& dyxo. Benedicto sea { *a=braam* }
%\C(r\V   \Vr)%	ayuda avn tu { *açip<re>ste* }
&(nd   nt   ll)#	a p<ri>etenlo los fiadores. & { *abeant* } guarnidas { *agrand* } marauilla & auia de su=so

## (7) Vocal y consonante: \V, \C

#u\V%	Passando { <i>*ua*</i> } la noch viniendo la man
#v\C%	Vio puertas abiertas & { <i>*vços*</i> } sin ca<n>nados
%\Vs\V%	Q<ue> ue<n>gades { <i>*acasa*</i> } de u<uest>ro sier=uo
%\Vss\V%	to sieruo ysaac. Ante q<ue> { <i>*acabasse*</i> }

## (8) LETRAS en Excel

	A	B	C	D	E	F
	Fm. búsqueda	#dest[eao]s?# %[mnu]i% TX		C	P	L
1		%[mnu]j% %				
72	%[mnu]j%	amj	dela sang<re> de tu h<er>mano llama { <i>*amj*</i> } dela	13d.GE	4rb	2
79	%[mnu]j%	anj=malias	solo. & aduxol essora dela<n>te todas las { <i>*anj=malias*</i> }	13d.GE	2rb	12
122	%[mnu]j%	aquj	{{ <i>*aquj*</i> } fue *ostrado aa=}	13b.Fazienda	1vb	17

## 2. Frecuencias de ítems

[LETRAS] Programas para analisis de datos linguisticos

<Inicio> | <Edición> | <Lista de búsqueda> | \*<Tabla total>

3.PMP (Pc)  Exp. reg.  Lista pals.  D. may/min.  N. letras lim. 20000

Ver.  Ord.  Item  Patrón  Patrón t

Hor.  Ord. Año 20  Total  Op.trans.

Act. hoja Redefinir Guardar Limpiar

Det. ip. Ejecutar Eliminar NmFIp: 0 NmFIOp: 0

[Lemi.D] #B: TX (1) Ocult. CnFIp: 5,049 Tpo. ejec. 0

#(a|de|d<e>|en|e<n>|con|co<n>|por)  
(e||a||o)s?#  
#(a|de|d<e>|en|e<n>|con|co<n>|por)  
(e||a||o)s?#  
#(di&|de&|(a|de)?ba&.)  
#(div&|de&|(a|de)?hav&.)

¡¢£¤¥¦§¨ª«¬®¯°±²³´µ¶·¸¹º»¼½¾ÀÁÂÃÄÅÆÇÈÉÊËÌÍÎÏÐÑÒÓÔÕÖ

1.Letras latinas (supl)

LETRAS-Excel

## **(0) Corpus:**

### (a) CODEA

«Corpus de Documentos Españoles Anteriores a 1700»

GITHE (Grupo de Investigación de Textos para la Historia del Español, Universidad de Alcalá)

### (b) CODCAR

«Corpus de Documentos de Cancillería Real »

Nieves Sánchez González de Herrero ( Universidad de Salamanca)

### (c) CORHEN

«Corpus Histórico del Español Norteño»

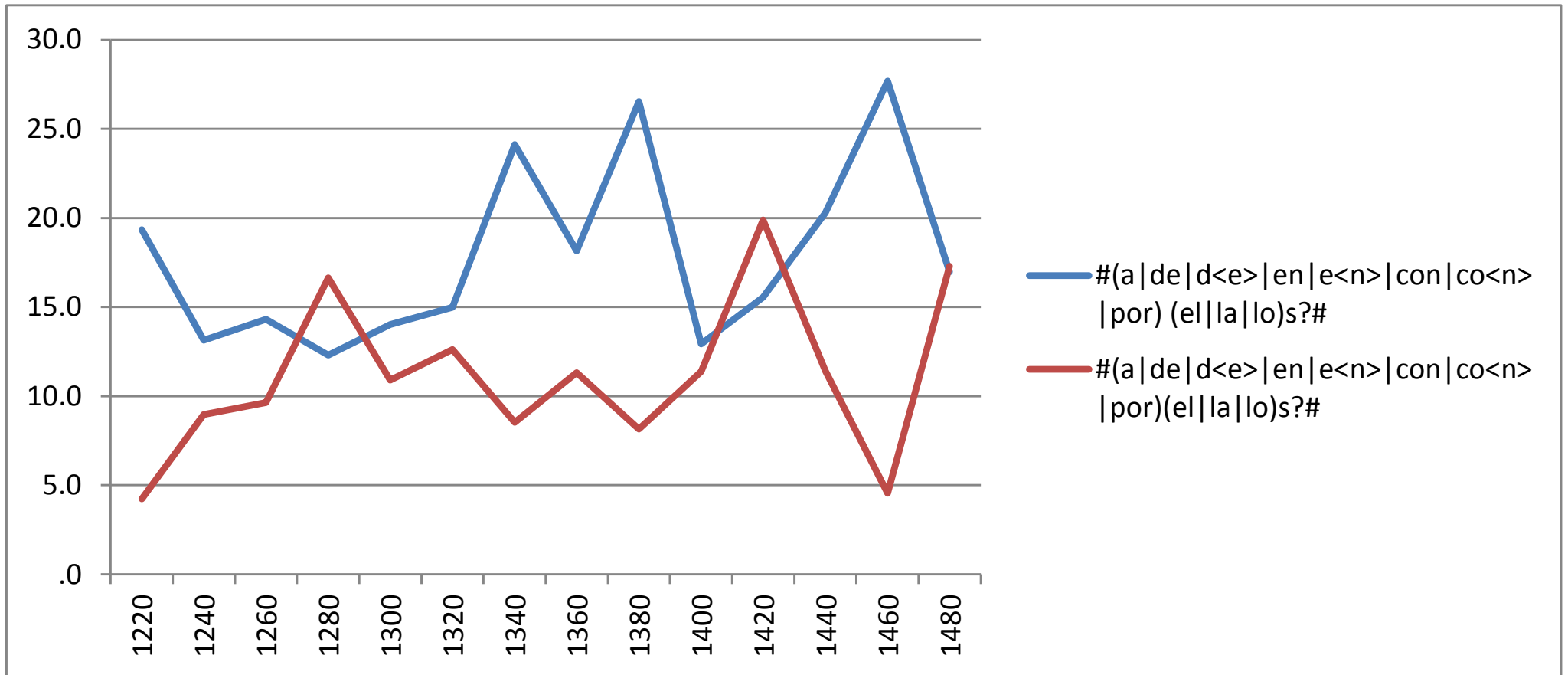
María Jesús Torrens Álvarez

### (d) LEMI

«Letras Españolas en Manuscritos e Impresos», Hiroto Ueda

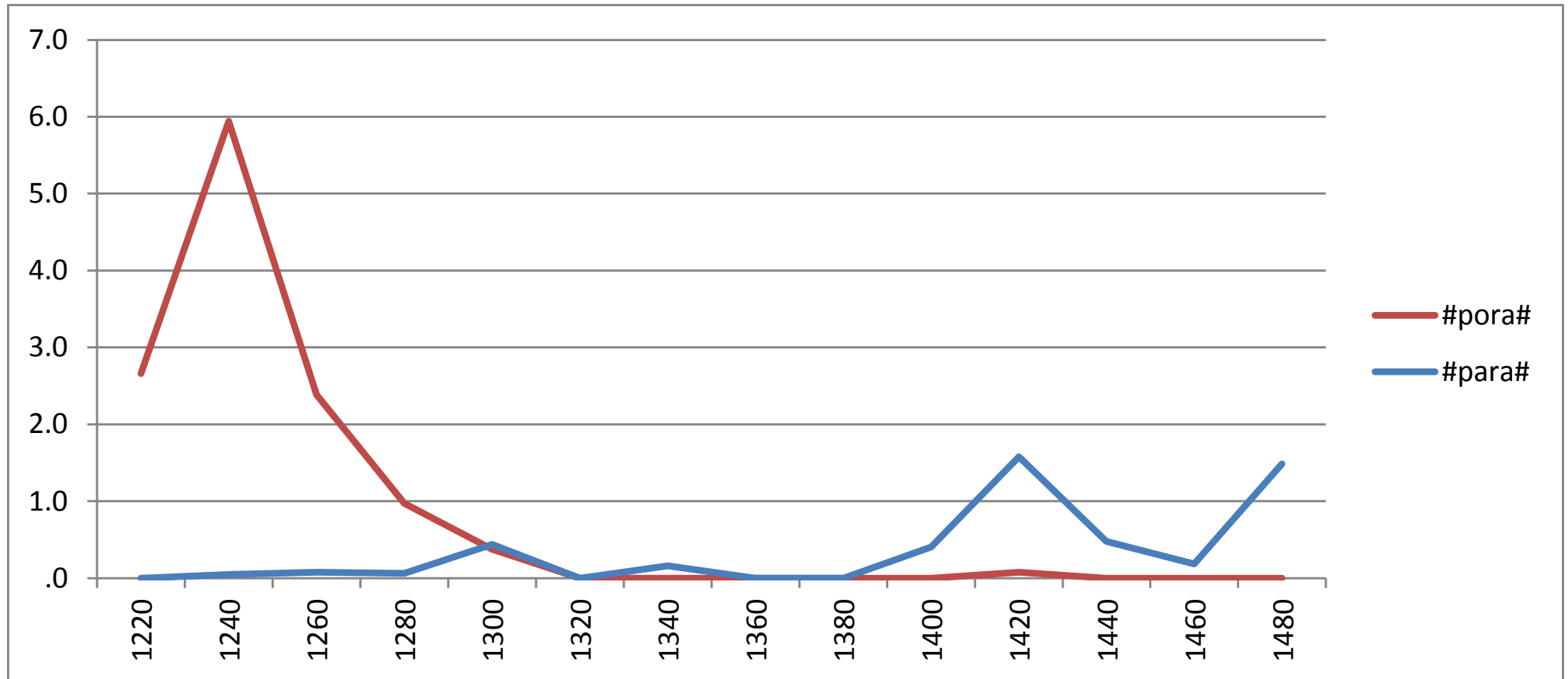
# (1) Unión y separación

Patrón	1220	1240	1260	1280	1300	1320	1340	1360	1380	1400	1420	1440	1460	1480
#(a de d<e> en e<n> con co<n> por)(el la lo)s?#	19.3	13.1	14.3	12.3	14.0	15.0	24.1	18.2	26.5	12.9	15.5	20.3	27.7	17.0
#(a de d<e> en e<n> con co<n> por)(el la lo)s?#	4.2	9.0	9.6	16.6	10.9	12.6	8.5	11.3	8.2	11.4	19.9	11.4	4.5	17.3

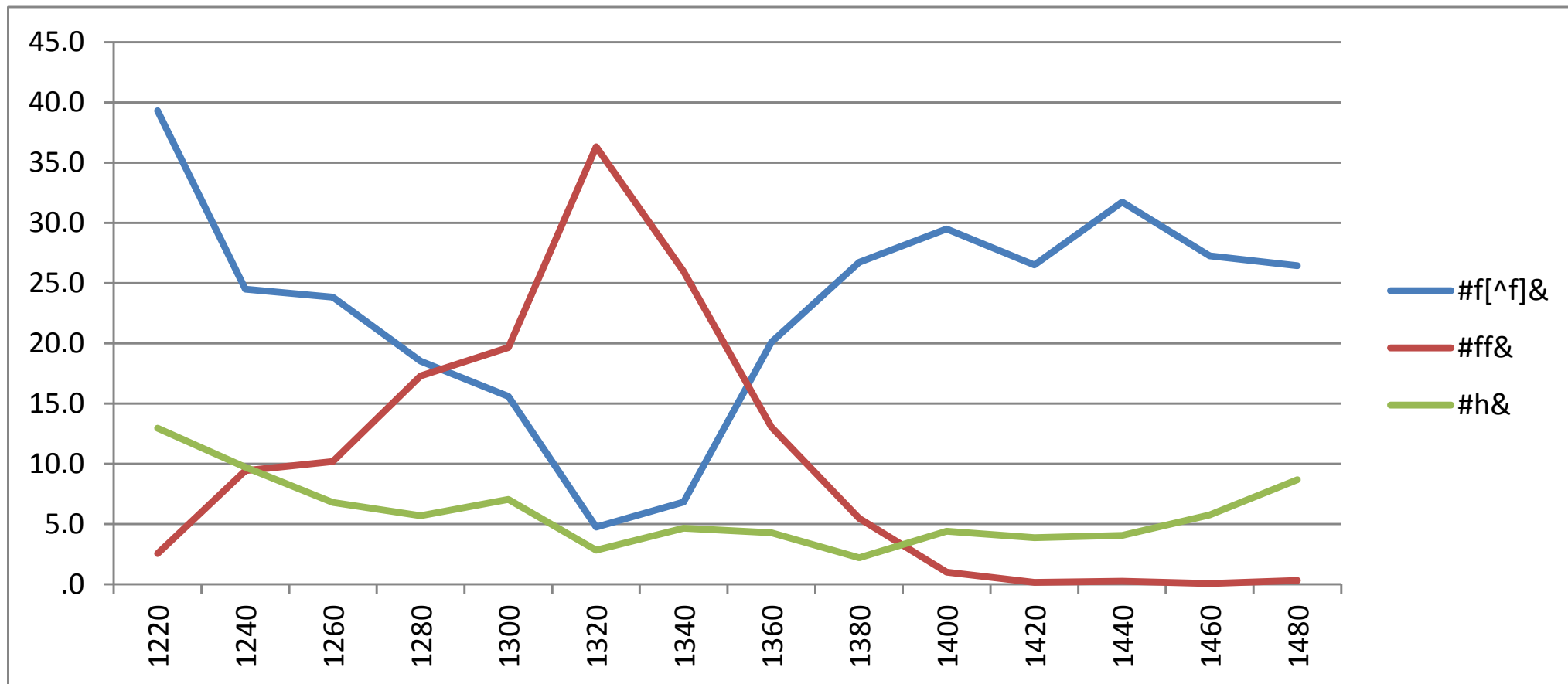




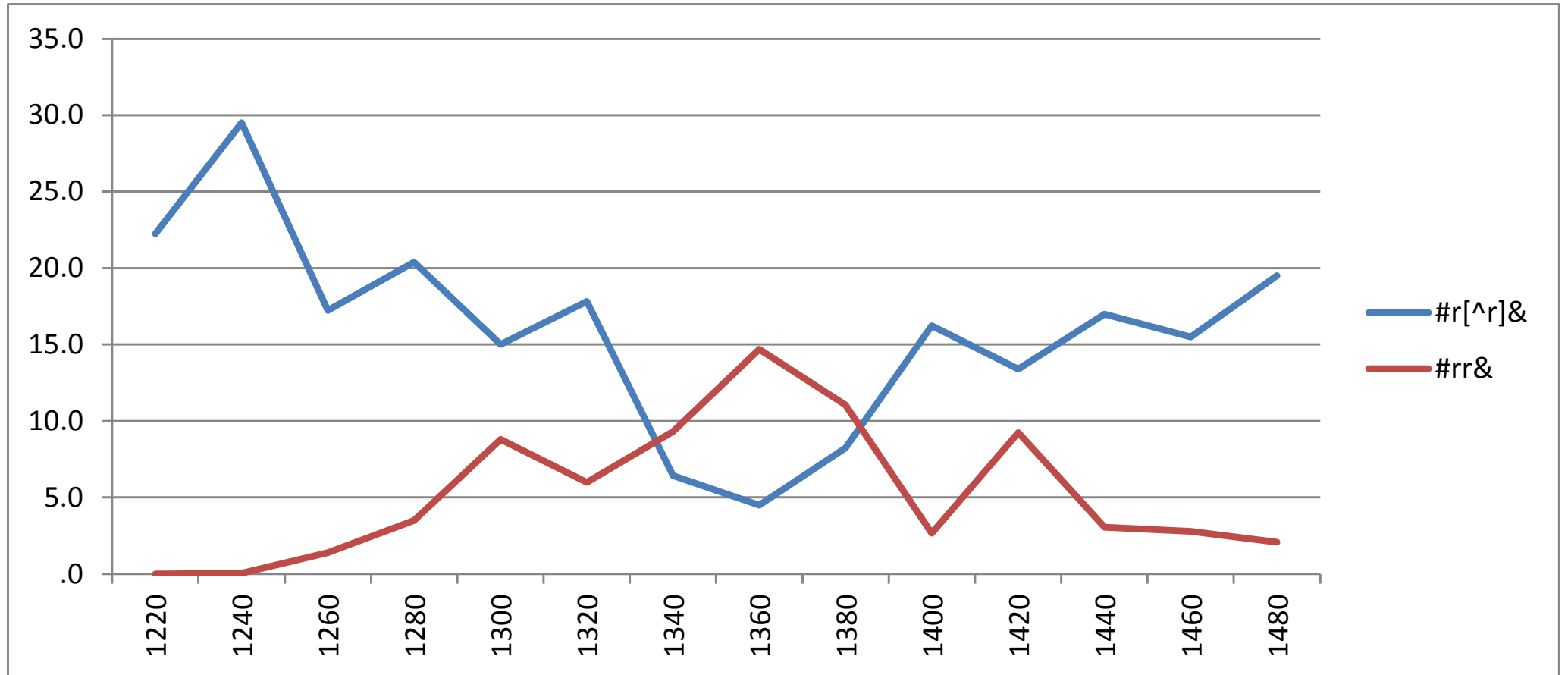
## (2) pora : para



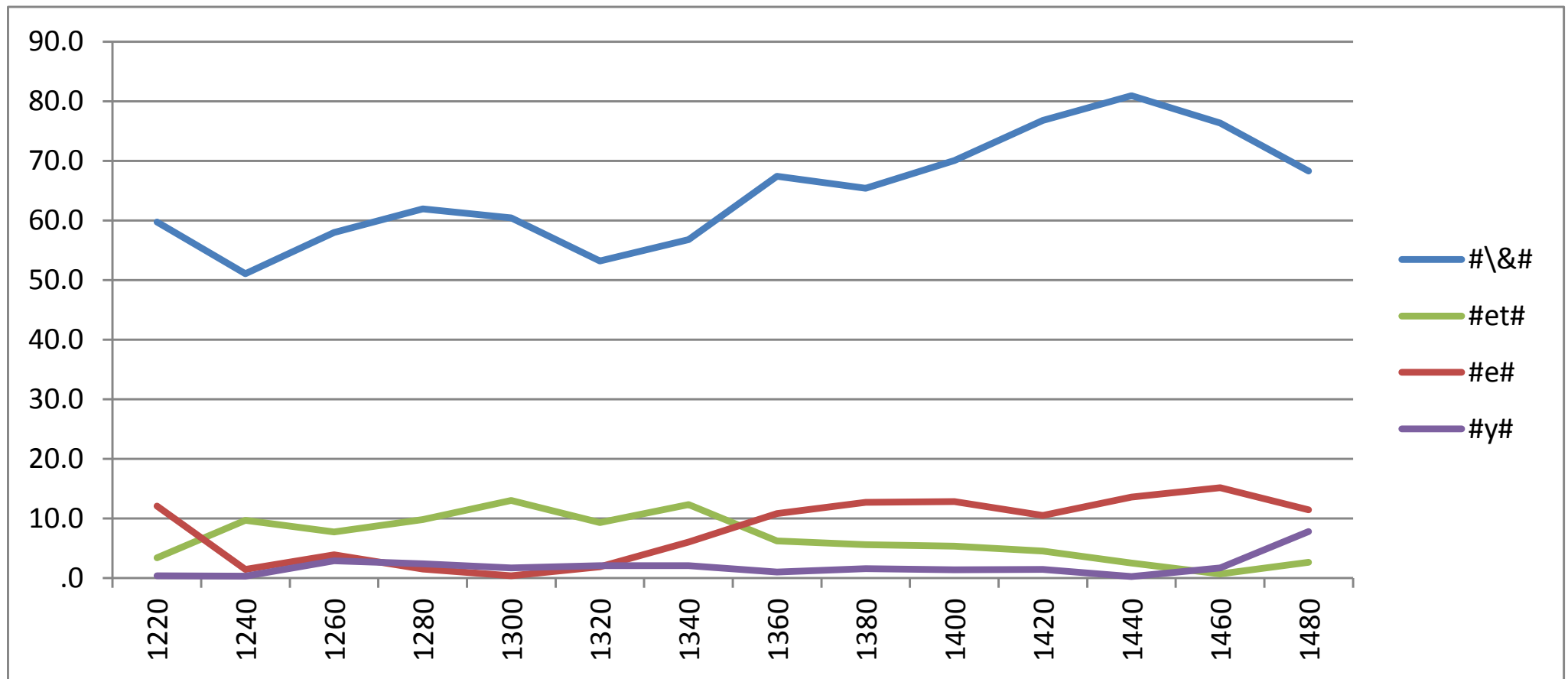
### (3) F- inicial



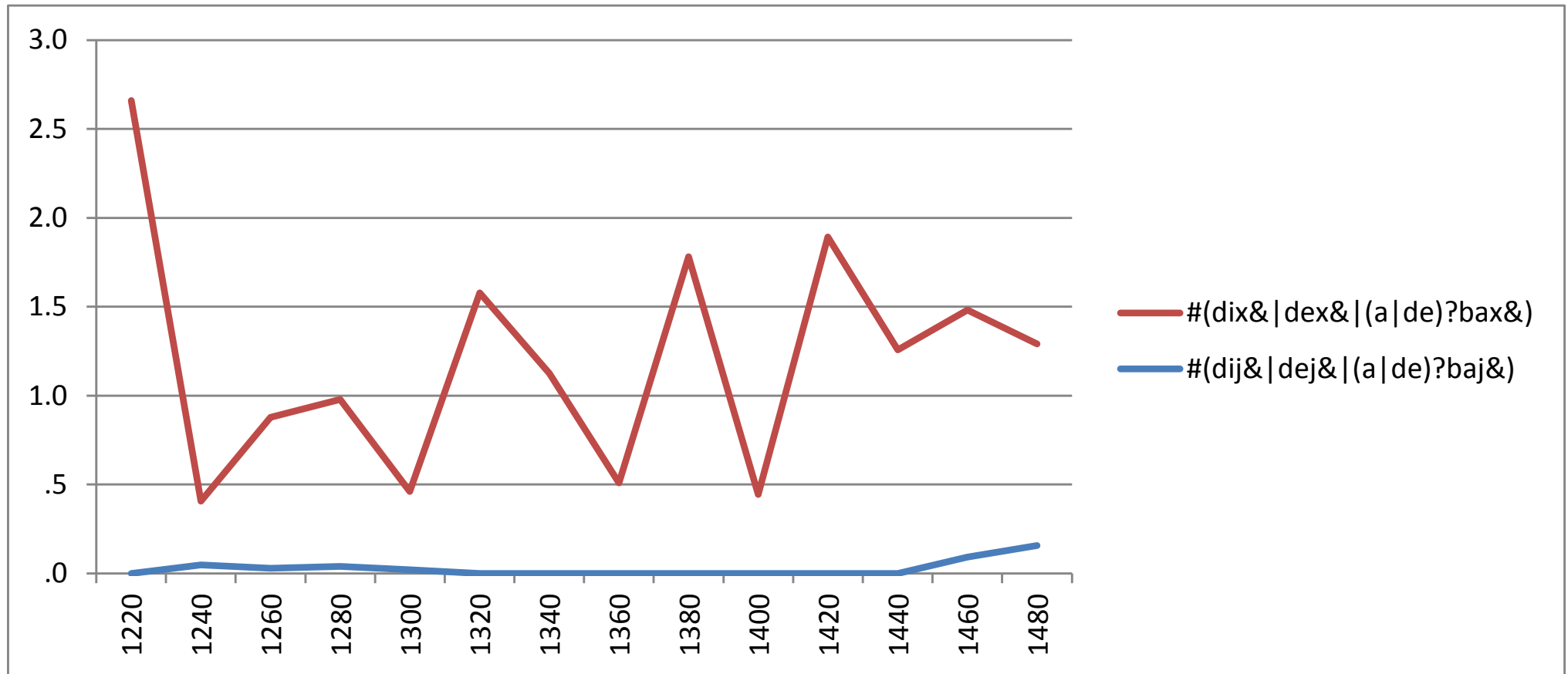
## (4) rr- : r-



# (5) & : et : e : y



## (6) j : x



# 3. Ordenación cronológica

## (a) Parte inicial

Dst.R	1220	1240	1260	1280	1300	1320	1340	1360	1380	1400	1420	1440	1460	1480
%\Cv\C%	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
#pora#	2.7	5.9	2.4	1.0	.4	.0	.0	.0	.0	.0	.1	.0	.0	.0
&<n>n&	2.5	.7	.9	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
#u\%V%	18.6	16.8	19.9	11.1	13.2	4.6	4.4	7.7	1.7	1.6	.0	1.1	.2	.6
#u\C%	5.4	2.7	2.4	1.7	.8	1.4	.2	.1	.2	.1	.1	.1	.1	.5
&nn&	7.5	8.5	3.9	1.2	1.2	.2	.2	.2	.2	.1	.1	.0	.0	1.3
%\Vu#	.7	.1	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0
#ff&	2.5	9.4	10.2	17.3	19.7	36.3	26.0	13.1	5.5	1.0	.2	.2	.0	.3
&ss&	9.6	12.0	16.2	19.2	14.4	28.6	11.6	4.6	2.0	1.7	.1	.8	1.9	2.4
#ss&	.0	.1	5.6	16.3	18.6	48.8	30.6	17.2	5.2	1.3	.0	.1	.0	.0
%cua%	.1	.1	.3	.2	.5	.0	.0	.1	.1	.0	.2	.0	.0	.0
%m[pb]%	6.9	5.9	3.9	2.1	1.3	1.9	.2	.1	.1	.2	.1	1.1	.1	1.5
%\Vi\%V%	16.8	16.0	16.8	13.3	11.3	5.0	4.4	2.0	1.9	3.7	2.2	5.0	3.7	5.0
#et#	3.4	9.7	7.7	9.8	13.0	9.3	12.3	6.2	5.6	5.4	4.5	2.5	.7	2.7
&t#	27.0	24.3	20.9	18.8	19.5	18.6	24.6	17.2	13.0	14.8	10.6	8.9	2.4	7.4
%\C#	14.9	14.5	12.4	10.2	8.6	8.5	2.7	2.7	3.0	3.8	3.5	2.9	1.0	7.5
%[mnu]i%	52.3	58.8	53.6	43.5	44.3	26.7	18.4	14.3	14.6	13.8	17.1	16.8	12.5	21.5
%\V#	2.4	1.4	.7	.3	.3	1.3	.2	.0	.0	.4	.2	.6	.0	.7
%c[ei]%	20.9	19.4	13.4	7.9	5.6	6.3	2.4	.7	1.8	2.7	1.5	2.2	2.4	10.0
%\Vj#	5.1	3.1	1.7	1.2	.9	.9	.4	.3	.3	.7	.1	.6	.3	2.0
#i\%V%	3.5	3.7	1.1	.9	1.3	3.2	.8	1.0	2.1	1.9	1.1	.8	1.0	.5
%ç[aou]%	6.8	7.7	5.8	5.9	5.7	9.2	4.1	1.5	2.7	4.1	4.7	3.2	4.0	3.2
%\Vi\C%	13.1	13.2	13.1	15.0	12.4	9.3	5.5	3.9	4.8	4.4	6.6	5.7	6.5	8.5
#y\%V%	8.7	6.6	9.7	8.2	9.6	7.9	9.0	7.3	4.4	6.6	6.2	6.5	6.9	2.6
%\Vy#	6.4	15.1	9.4	11.5	8.6	12.2	6.4	6.2	5.6	8.0	9.8	6.4	7.3	5.3
&(nd nt ll)#	8.1	7.0	6.9	6.4	4.6	3.9	4.0	5.4	4.5	5.1	5.3	4.1	2.8	4.8

## (b) Parte media

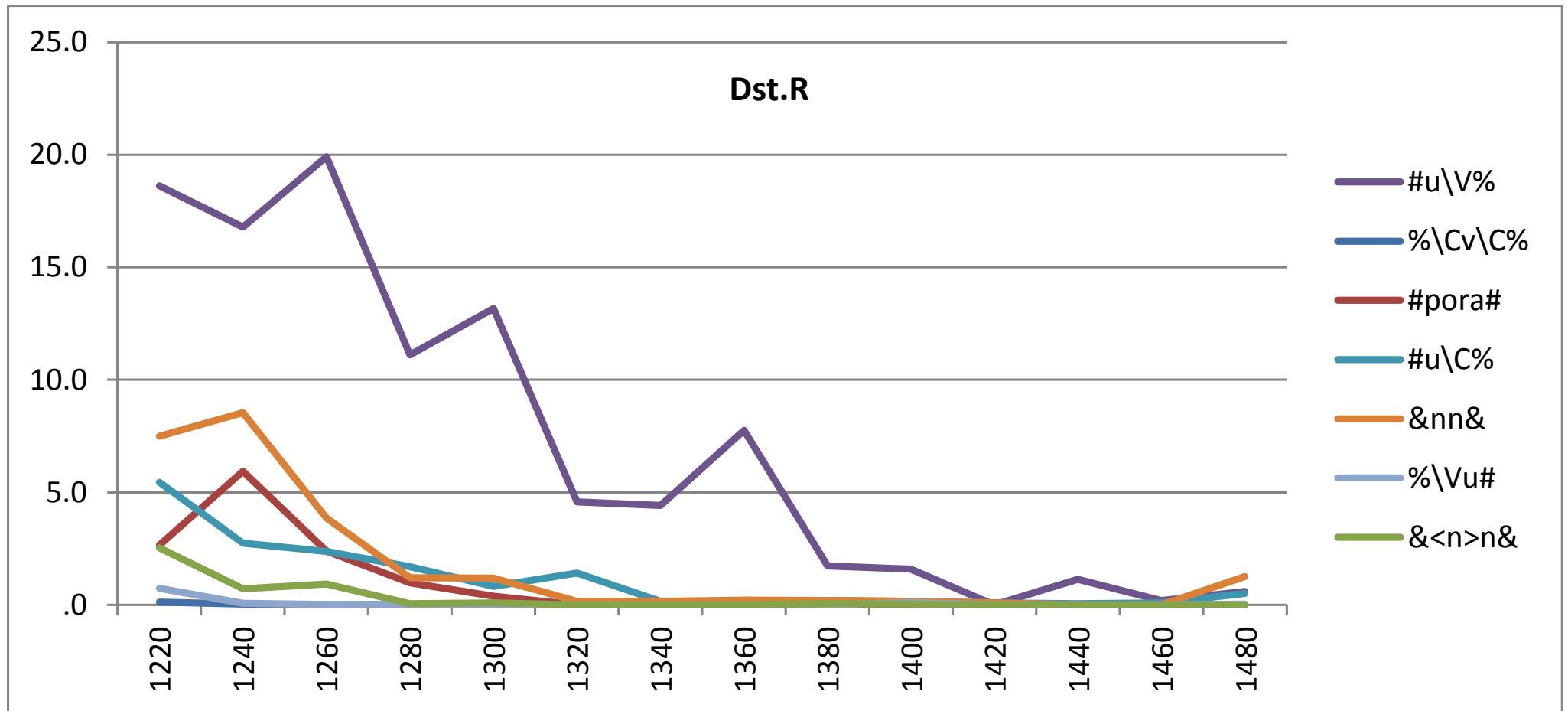
%n#	58.0	88.9	69.5	75.6	65.9	60.1	45.2	46.2	47.2	62.8	56.6	49.3	36.9	51.5
#jC%	.5	1.0	1.1	2.5	1.8	1.6	.4	.4	.4	1.5	3.1	1.0	.5	.5
%\Vy\ V%	4.4	7.9	7.5	7.2	6.7	5.4	6.0	5.2	4.5	4.4	5.6	4.7	5.4	4.3
%\Vu\ V%	20.8	28.4	27.6	28.2	24.4	17.5	17.1	16.5	19.0	22.7	22.2	19.4	14.4	17.9
#rr&	.0	.0	1.4	3.5	8.8	6.0	9.3	14.7	11.1	2.7	9.2	3.1	2.8	2.1
%<n>#	41.2	29.9	39.8	43.8	44.5	42.4	38.8	37.7	52.7	32.5	30.2	36.1	40.6	28.6
%\Ci\ V%	70.7	75.3	73.4	72.0	62.9	63.4	54.2	64.4	55.7	58.4	61.1	56.3	52.3	63.0
#h&	12.9	9.7	6.8	5.7	7.0	2.8	4.7	4.3	2.2	4.4	3.9	4.1	5.7	8.7
%q<u\ V>%	42.3	47.8	71.6	74.8	71.8	69.1	69.2	68.3	73.9	65.0	58.3	53.6	62.2	47.1
#de#	64.2	72.1	65.6	60.0	56.3	56.2	53.8	59.1	53.4	59.3	54.7	54.3	58.1	58.6
#r[^\r]&	22.2	29.5	17.2	20.4	15.0	17.8	6.4	4.5	8.2	16.2	13.4	17.0	15.5	19.5
%\C(r\ V\ Vr)%	151.7	152.5	151.1	149.0	142.2	149.3	127.0	131.9	141.5	141.9	155.0	132.5	126.5	155.5
%z[au]%	2.8	3.3	4.2	4.0	4.4	4.1	4.9	5.2	5.1	3.5	3.5	4.7	3.8	3.6
%t%	173.6	152.1	155.6	152.0	156.2	157.8	158.1	160.4	158.5	158.8	155.5	151.7	137.8	176.5
#jV%	7.6	7.5	7.2	8.5	7.1	9.5	7.2	9.0	6.9	9.4	8.1	8.0	7.4	7.9
%nC%	67.9	78.0	65.5	69.8	68.0	66.8	58.7	50.0	59.5	77.4	73.8	65.3	54.4	85.6
&s[^\s]&	138.2	134.5	163.3	179.7	181.8	190.0	189.3	191.0	195.6	180.4	173.7	167.1	177.5	192.7
%\Cu\ C%	26.8	30.4	23.0	24.9	23.8	28.6	20.8	18.3	18.6	22.9	20.7	21.5	23.4	35.3
%\C(<r\ V\ Vr>)%	7.5	7.7	12.3	15.2	20.2	23.2	26.1	28.6	26.7	13.8	16.5	17.9	17.9	17.6
%<n>C%	29.3	17.8	27.6	29.5	30.1	30.5	35.0	36.1	35.6	23.8	31.6	33.9	37.4	26.7
%\Ci\ C%	75.6	67.0	58.9	59.1	71.6	71.0	78.4	89.3	84.2	81.4	90.1	79.7	61.5	81.7
%\Cu\ V%	51.7	41.3	30.3	28.7	27.9	23.4	25.8	19.7	19.9	28.2	38.9	41.0	25.1	42.4
%\Vu\ C%	6.8	5.7	5.2	4.9	3.6	4.3	2.4	4.0	3.9	4.3	4.9	5.3	6.0	5.6
%\Cv\ V%	1.0	.6	.5	.4	.2	.0	.6	.0	.0	.1	.2	.1	.3	.9
#(dix& dex&(a de)?bax&)	2.7	.4	.9	1.0	.5	1.6	1.1	.5	1.8	.4	1.9	1.3	1.5	1.3
#(a de d<e> en e<n> con co<n> por)(e l a lo)s?#	4.2	9.0	9.6	16.6	10.9	12.6	8.5	11.3	8.2	11.4	19.9	11.4	4.5	17.3
#d<e>#	8.8	.4	.6	.3	1.1	.2	8.8	.9	2.2	.3	.6	2.7	5.4	2.8
%nr[^\r]%	.0	.1	.0	.0	.0	.2	.0	.0	.0	.0	.1	.0	.0	.1
%nrr%	.0	.7	.4	1.1	.6	.8	.3	.9	.3	1.3	1.1	.4	.6	.8
#iC%	4.4	2.4	1.4	.7	1.3	.5	.2	.4	1.5	1.0	1.3	1.1	1.2	3.3
#(a de d<e> en e<n> con co<n> por)(e l a lo)s?#	19.3	13.1	14.3	12.3	14.0	15.0	24.1	18.2	26.5	12.9	15.5	20.3	27.7	17.0
#&#	59.7	51.1	58.0	61.9	60.4	53.2	56.8	67.4	65.4	70.0	76.8	80.9	76.3	68.3
%\Vy\ C%	5.9	6.0	5.6	6.3	6.2	5.7	5.8	6.3	7.0	4.9	8.3	7.7	7.1	8.3
%gn%	1.9	3.0	1.6	3.0	2.4	3.5	3.8	4.0	3.0	4.4	5.6	3.8	4.5	2.5
#f[^\f]&	39.3	24.5	23.8	18.5	15.6	4.7	6.8	20.1	26.7	29.5	26.5	31.7	27.3	26.4
#s[^\s]&	45.6	45.1	41.1	30.9	28.3	14.0	20.0	29.5	35.3	46.4	44.3	44.5	41.9	48.4
&n<n>&	6.0	7.2	12.2	10.4	11.5	8.8	10.5	11.0	11.5	11.7	19.2	12.6	12.5	13.8
%th%	.0	1.7	.6	.5	.6	.5	.2	.1	.1	.1	1.3	.5	.7	1.1
%\Vj\ V%	7.3	4.4	3.8	5.8	4.9	5.2	6.2	5.3	15.5	11.0	10.2	8.7	8.5	10.2

## (c) Parte final

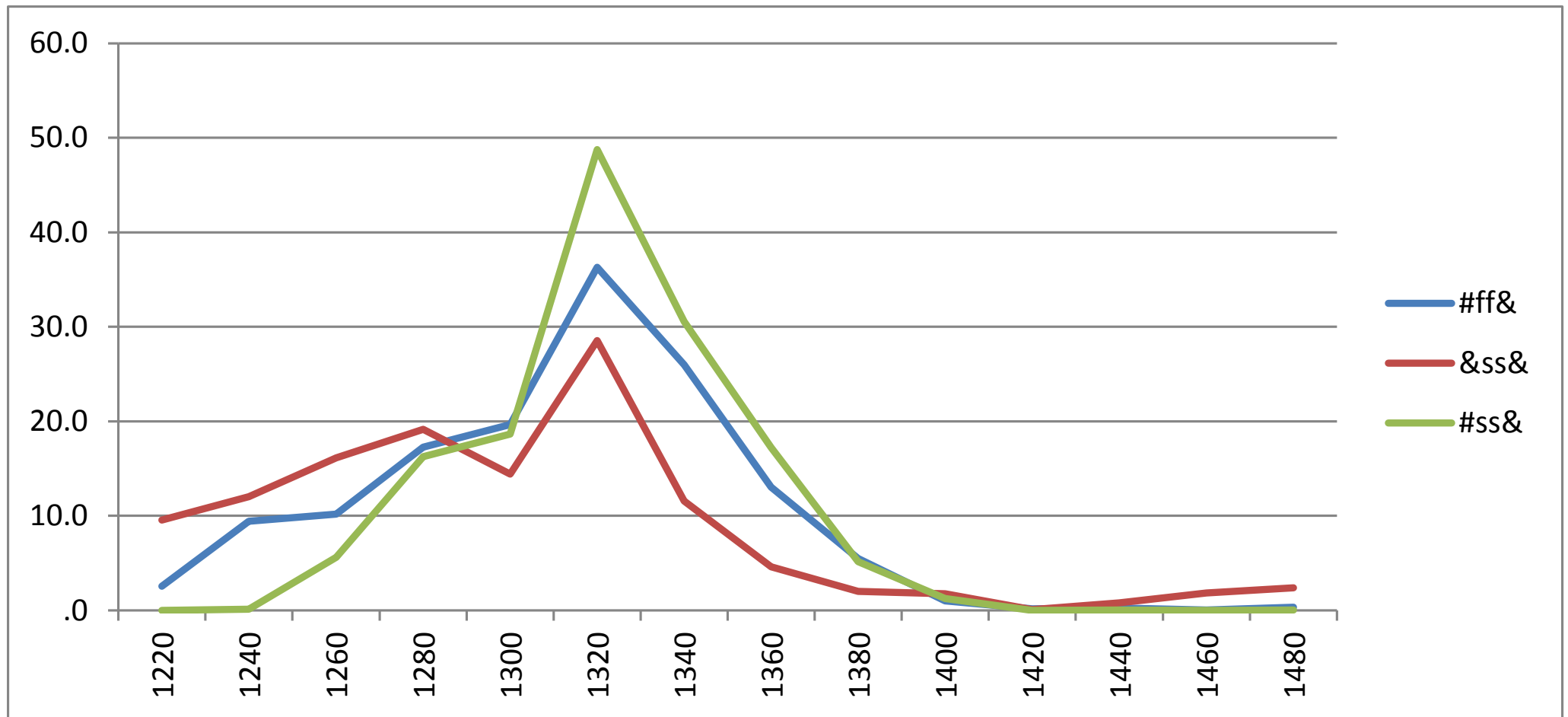
#v\V%	10.0	5.7	8.8	13.7	13.0	17.8	20.6	24.2	21.2	25.6	19.7	24.3	26.1	22.2
%n[pb]%	1.8	.7	3.2	3.4	2.8	4.4	5.3	3.7	4.0	9.3	9.4	6.5	4.2	6.3
%\Cj#	8.3	2.2	3.1	3.8	5.0	6.3	4.9	5.3	3.1	7.8	14.2	12.6	13.1	4.5
#v\C%	2.1	1.0	1.1	2.8	3.1	2.8	4.8	6.4	6.4	6.7	7.5	7.7	7.3	5.7
%[mnu]j%	13.4	4.5	7.6	16.4	22.2	31.6	32.1	28.6	30.8	46.4	46.5	47.3	52.0	35.5
%\Cj\V%	1.5	.4	1.3	3.8	5.3	8.5	8.5	7.5	8.9	9.8	10.0	8.9	8.0	12.6
%ç[ei]%	.8	2.6	11.7	15.6	19.5	23.0	22.8	29.4	23.4	23.1	29.8	34.2	36.9	33.9
&d#	6.2	3.8	4.1	4.3	4.2	7.4	5.3	6.0	7.0	6.7	6.9	12.3	11.9	13.3
#e#	12.1	1.4	3.9	1.5	.4	1.9	6.0	10.8	12.7	12.9	10.5	13.6	15.1	11.5
%qu\V%	14.0	9.7	2.3	2.2	2.7	.3	.2	.0	.5	4.1	10.0	14.4	2.5	16.1
%qua%	3.0	2.0	1.0	.9	.6	.2	.0	.0	.1	2.0	4.0	2.2	1.0	4.2
#y#	.4	.3	2.9	2.4	1.7	2.1	2.1	1.0	1.6	1.4	1.4	.2	1.7	7.8
%\Cy#	1.2	1.5	.7	.3	.2	.3	2.9	5.5	3.5	2.8	2.0	5.9	6.0	4.0
%\Vj\C%	1.3	.1	.2	.5	.4	1.6	5.5	4.9	3.0	7.3	6.5	5.4	4.4	7.8
#y\C%	.2	1.3	.5	.9	1.0	1.4	1.3	.8	1.1	1.9	1.7	1.6	2.5	5.4
%\Cj\C%	2.2	.1	.3	1.6	3.3	3.5	9.1	10.4	9.6	14.3	14.5	14.3	19.2	17.2
%\Cy\V%	1.3	.7	.5	.2	.2	.0	.0	.9	.2	.3	.3	.4	.8	3.0
%\Vv\V%	.1	.3	.3	.6	.6	.8	1.0	2.9	2.3	1.6	4.0	4.2	4.7	6.7
#para#	.0	.0	.1	.1	.4	.0	.2	.0	.0	.4	1.6	.5	.2	1.5
#{dij& dej& (a de)?baj&}	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.2
%\Cy\C%	.1	.5	.1	.1	.1	.3	.4	.7	.7	1.8	2.5	2.4	3.3	4.9
%\Vv\C%	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.6	.5	.4	1.1
&ñ&	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0	.2	.0	.0	.8



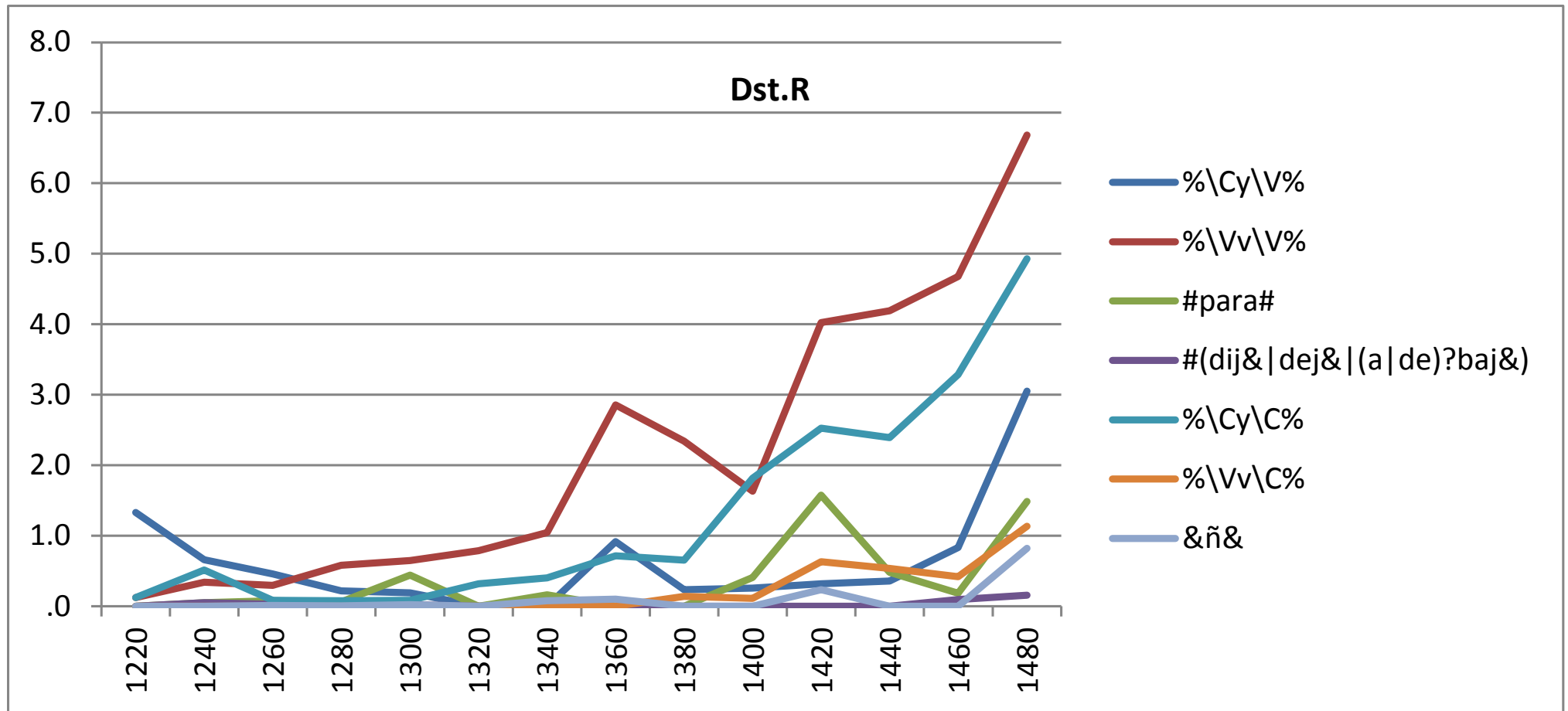
# (1) Concentración inicial



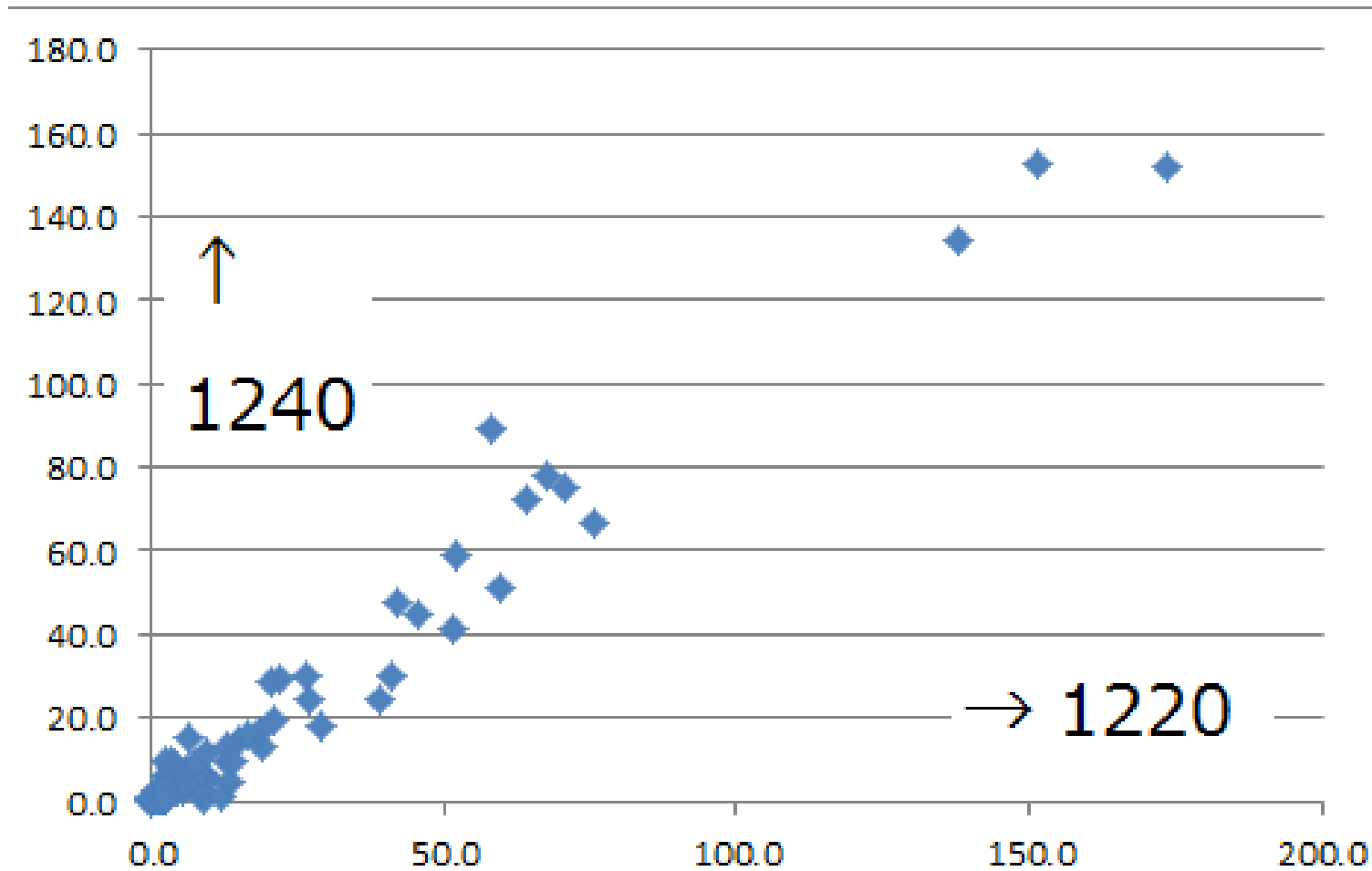
## (2) Concentración media



### (3) Concentración final



# 4. Unimodalidad



# (1) Correlación

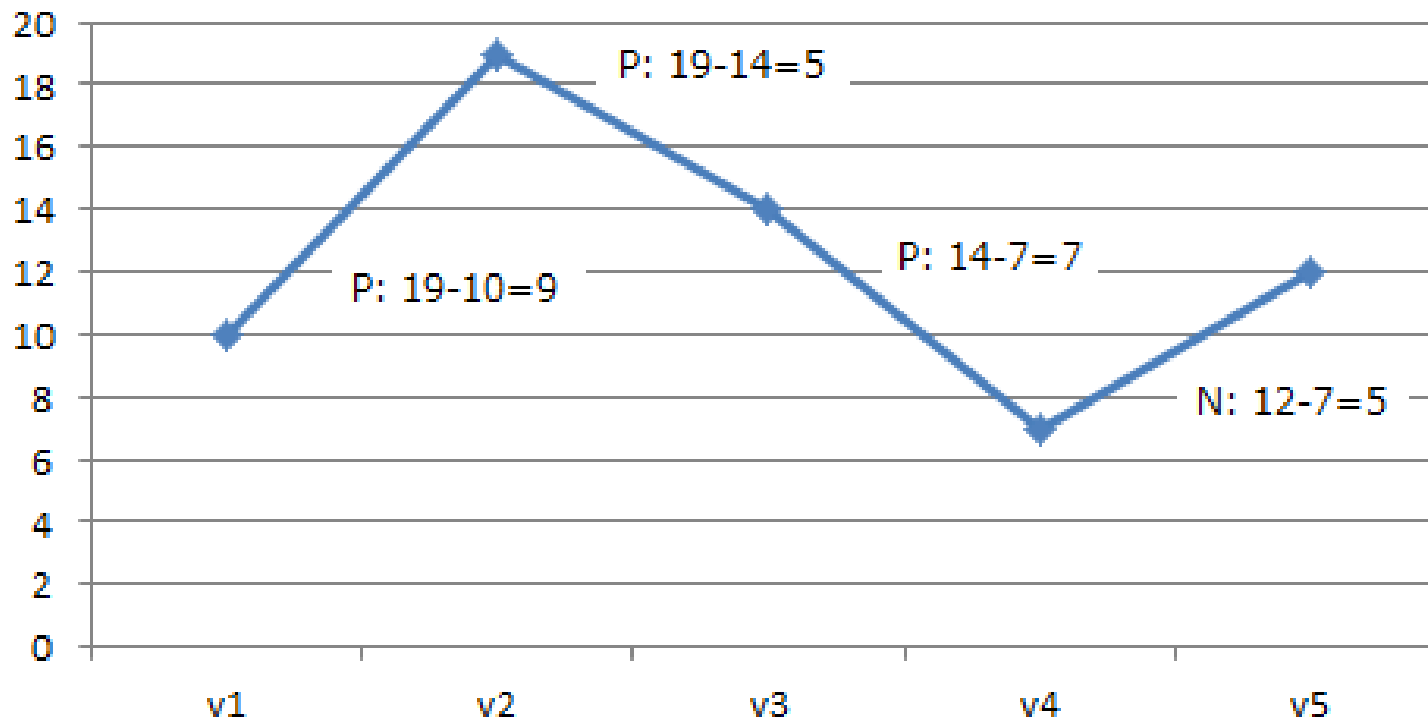
Correlación	1220	1240	1260	1280	1300	1320	1340	1360	1380	1400	1420	1440	1460	1480	Unimodalidad
1220	1.0000	.9818	.9777	.9607	.9592	.9248	.9258	.9320	.9369	.9501	.9503	.9487	.9201	.9575	.2524
1240	.9818	1.0000	.9826	.9688	.9590	.9245	.9092	.9115	.9147	.9378	.9340	.9230	.8924	.9397	.3411
1260	.9777	.9826	1.0000	.9937	.9886	.9608	.9544	.9565	.9592	.9629	.9572	.9507	.9384	.9592	.5186
1280	.9607	.9688	.9937	1.0000	.9962	.9803	.9715	.9686	.9701	.9713	.9646	.9579	.9499	.9642	.6891
1300	.9592	.9590	.9886	.9962	1.0000	.9860	.9844	.9805	.9799	.9761	.9709	.9657	.9580	.9698	.7489
1320	.9248	.9245	.9608	.9803	.9860	1.0000	.9881	.9741	.9673	.9590	.9530	.9465	.9450	.9536	.8713
1340	.9258	.9092	.9544	.9715	.9844	.9881	1.0000	.9918	.9860	.9722	.9664	.9653	.9663	.9650	.7563
1360	.9320	.9115	.9565	.9686	.9805	.9741	.9918	1.0000	.9937	.9815	.9786	.9785	.9782	.9732	.6378
1380	.9369	.9147	.9592	.9701	.9799	.9673	.9860	.9937	1.0000	.9863	.9821	.9825	.9847	.9772	.5344
1400	.9501	.9378	.9629	.9713	.9761	.9590	.9722	.9815	.9863	1.0000	.9944	.9922	.9834	.9896	.4589
1420	.9503	.9340	.9572	.9646	.9709	.9530	.9664	.9786	.9821	.9944	1.0000	.9947	.9811	.9901	.4071
1440	.9487	.9230	.9507	.9579	.9657	.9465	.9653	.9785	.9825	.9922	.9947	1.0000	.9898	.9893	.4082
1460	.9201	.8924	.9384	.9499	.9580	.9450	.9663	.9782	.9847	.9834	.9811	.9898	1.0000	.9766	.5383
1480	.9575	.9397	.9592	.9642	.9698	.9536	.9650	.9732	.9772	.9896	.9901	.9893	.9766	1.0000	.3087

Ejemplo: {v1:10, v2:19, v3:14, v4:7, v5:12}

Unimodalidad =  $(P - N) / (P + N)$

$$= (9+5+7-5)/(9+5+7+5) = 16/26 = .615$$

P: Unimodalidad positiva; N: Unimodalidad negativa



## (2) Distancia simple

Dist. simple	1220	1240	1260	1280	1300	1320	1340	1360	1380	1400	1420	1440	1460	1480	Unimodalidad
1220	1.0000	.9690	.9653	.9535	.9529	.9352	.9371	.9387	.9399	.9472	.9474	.9483	.9356	.9479	.5065
1240	.9690	1.0000	.9695	.9585	.9530	.9352	.9311	.9307	.9307	.9414	.9396	.9374	.9265	.9384	.6722
1260	.9653	.9695	1.0000	.9810	.9750	.9528	.9506	.9509	.9516	.9545	.9510	.9490	.9431	.9488	.8173
1280	.9535	.9585	.9810	1.0000	.9853	.9664	.9600	.9578	.9582	.9597	.9553	.9520	.9472	.9523	.8696
1300	.9529	.9530	.9750	.9853	1.0000	.9716	.9705	.9669	.9657	.9633	.9595	.9569	.9520	.9556	.9266
1320	.9352	.9352	.9528	.9664	.9716	1.0000	.9728	.9612	.9562	.9515	.9481	.9451	.9438	.9462	.9606
1340	.9371	.9311	.9506	.9600	.9705	.9728	1.0000	.9783	.9708	.9603	.9561	.9574	.9581	.9513	.8757
1360	.9387	.9307	.9509	.9578	.9669	.9612	.9783	1.0000	.9806	.9675	.9647	.9651	.9641	.9575	.7870
1380	.9399	.9307	.9516	.9582	.9657	.9562	.9708	.9806	1.0000	.9717	.9673	.9669	.9673	.9610	.7222
1400	.9472	.9414	.9545	.9597	.9633	.9515	.9603	.9675	.9717	1.0000	.9818	.9775	.9672	.9724	.6380
1420	.9474	.9396	.9510	.9553	.9595	.9481	.9561	.9647	.9673	.9818	1.0000	.9802	.9647	.9737	.5830
1440	.9483	.9374	.9490	.9520	.9569	.9451	.9574	.9651	.9669	.9775	.9802	1.0000	.9767	.9682	.6472
1460	.9356	.9265	.9431	.9472	.9520	.9438	.9581	.9641	.9673	.9672	.9647	.9767	1.0000	.9558	.7323
1480	.9479	.9384	.9488	.9523	.9556	.9462	.9513	.9575	.9610	.9724	.9737	.9682	.9558	1.0000	.4138

$$X = D(S(Dnp, Mn(Dnp)), Rg(Dnp))$$

D: Dividir, S: Sumar, Dnp: Datos, Mn: Míximo, Rg: Rango (Max - Min)

Dnp	v1	v2	v3	X	v1	v2	v3	Dist. simple	v1	v2	v3
d1	45	48	66	d1	.313	.350	.575	v1	1.000	.877	.584
d2	56	59	54	d2	.450	.488	.425	v2	.877	1.000	.545
d3	58	51	78	d3	.475	.388	.725	v3	.584	.545	1.000
d4	77	72	20	d4	.713	.650	.000				
d5	43	44	32	d5	.288	.300	.150				
d6	58	34	90	d6	.475	.175	.875				
d7	50	53	100	d7	.375	.413	1.000				

$$SpD = 1 - Euclid(X)$$

$$Euclid(i, j) = \left\{ \left[ \sum_{(k=1, n)} (x_{ki} - x_{kj})^2 \right] / n \right\}^{1/2} \quad (i, j = 1, 2, \dots, p)$$



### (3) Distancia limitada

Dist. limitada	1220	1240	1260	1280	1300	1320	1340	1360	1380	1400	1420	1440	1460	1480	Unimodalidad
1220	1.0000	.6079	.5939	.5108	.4931	.4365	.4153	.3885	.4150	.4392	.3881	.4393	.3909	.4027	.7242
1240	.6079	1.0000	.7135	.6467	.5900	.5249	.4242	.4084	.4002	.4680	.4226	.4186	.3779	.4015	.8443
1260	.5939	.7135	1.0000	.8114	.7736	.6202	.5799	.5591	.5508	.5657	.5003	.5214	.4889	.4414	.9304
1280	.5108	.6467	.8114	1.0000	.8154	.7179	.6241	.6105	.5881	.6297	.5741	.5606	.5254	.4706	.9245
1300	.4931	.5900	.7736	.8154	1.0000	.7070	.7002	.6616	.6481	.6300	.5793	.5877	.5505	.4668	.9841
1320	.4365	.5249	.6202	.7179	.7070	1.0000	.6715	.6384	.6124	.6237	.5563	.5573	.5399	.4525	.9599
1340	.4153	.4242	.5799	.6241	.7002	.6715	1.0000	.7590	.7356	.6496	.5690	.6444	.6434	.4734	.8422
1360	.3885	.4084	.5591	.6105	.6616	.6384	.7590	1.0000	.7699	.7147	.6186	.7000	.6690	.4996	.8417
1380	.4150	.4002	.5508	.5881	.6481	.6124	.7356	.7699	1.0000	.6861	.6161	.7080	.6929	.5131	.7901
1400	.4392	.4680	.5657	.6297	.6300	.6237	.6496	.7147	.6861	1.0000	.7219	.7412	.6684	.5813	.9002
1420	.3881	.4226	.5003	.5741	.5793	.5563	.5690	.6186	.6161	.7219	1.0000	.7319	.6351	.6263	.9510
1440	.4393	.4186	.5214	.5606	.5877	.5573	.6444	.7000	.7080	.7412	.7319	1.0000	.7827	.6217	.8859
1460	.3909	.3779	.4889	.5254	.5505	.5399	.6434	.6690	.6929	.6684	.6351	.7827	1.0000	.5761	.8639
1480	.4027	.4015	.4414	.4706	.4668	.4525	.4734	.4996	.5131	.5813	.6263	.6217	.5761	1.0000	.8110

$$X_{np} = D(S(D_{np}, M_{nR}(D_{np})), S(M_{xR}(D_{np}), M_{nR}(D_{np})))$$

D: Dividir, S: Sumar, D<sub>np</sub>: Datos, M<sub>nR</sub>: Mínimo de fila, M<sub>xR</sub>: Máximo de fila

D <sub>np</sub>	v1	v2	v3	X	v1	v2	v3	Dist. lim	v1	v2	v3
d1	45	48	66	d1	.000	.143	1.000	v1	1.000	.695	.165
d2	56	59	54	d2	.400	1.000	.000	v2	.695	1.000	.040
d3	58	51	78	d3	.259	.000	1.000	v3	.165	.040	1.000
d4	77	72	20	d4	1.000	.912	.000				
d5	43	44	32	d5	.917	1.000	.000				
d6	58	34	90	d6	.429	.000	1.000				
d7	50	53	100	d7	.000	.060	1.000				

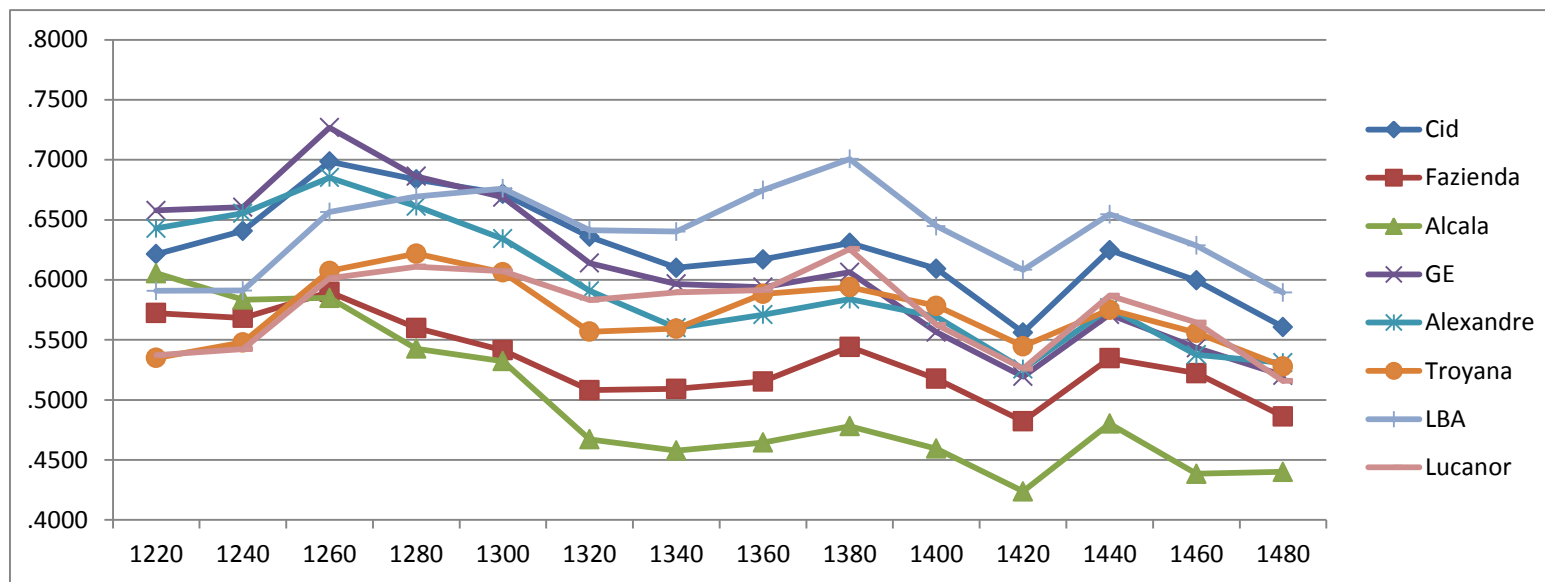
Distancia limitada = 1 - Euclid(X)

## (4) Conglomeración: Distancia limitada

Average	R.	1.0000 (Max.) : (Min.) .0000
1220	.0000	
1240	.6079	
1260	.4407	
1280	.7925	
1300	.8154	
1320	.6663	
1340	.5933	
1360	.7473	
1380	.7699	
1400	.6511	
1420	.7219	
1440	.6942	
1460	.7827	
1480	.4997	

## (5) Aplicación: Cronología relativa

Distancia limitada	1220	1240	1260	1280	1300	1320	1340	1360	1380	1400	1420	1440	1460	1480	Max
Cid	.6214	.6408	.6986	.6836	.6717	.6357	.6101	.6170	.6307	.6093	.5562	.6247	.5995	.5606	.6986
Fazienda	.5723	.5683	.5899	.5599	.5413	.5080	.5091	.5153	.5442	.5176	.4822	.5346	.5222	.4862	.5899
Alcala	.6055	.5834	.5849	.5427	.5323	.4671	.4578	.4645	.4780	.4594	.4238	.4803	.4384	.4400	.6055
GE	.6579	.6605	.7269	.6862	.6688	.6139	.5965	.5939	.6064	.5564	.5194	.5711	.5434	.5204	.7269
Alexandre	.6428	.6555	.6852	.6613	.6342	.5909	.5600	.5709	.5838	.5693	.5257	.5766	.5375	.5309	.6852
Troyana	.5349	.5479	.6074	.6217	.6061	.5567	.5594	.5883	.5939	.5783	.5446	.5750	.5559	.5278	.6217
LBA	.5908	.5911	.6565	.6695	.6761	.6414	.6402	.6748	.7007	.6448	.6084	.6546	.6286	.5893	.7007
Lucanor	.5372	.5423	.6013	.6110	.6071	.5833	.5896	.5915	.6257	.5625	.5260	.5868	.5644	.5157	.6257



# 5. LETRAS-web

**LETRAS-web: Programas para análisis de datos lingüísticos**

Idioma: Español

Página de output: Esta página

Cómo utilizar [PDF]

Cómo citar [PDF]


NUMEROS-web

Casilla de texto

Todo archivo

**-Reiniciar-**

COLABORACIÓN:  
LLI-UAM (Universidad Autónoma de Madrid)



**EJECUTAR**

**[1] Input: CODEA-P1 + CODEA-P2 + CODEA-P3**

Archivo(\*):

- 11 CODEA-P1
- 12 CODEA-P2
- 13 CODEA-P3
- 14 CODEA-C1
- 15 CODEA-C2
- 16 CODEA-C3
- 17 CORHEN-P

Explicación (pdf)

- 1 ALICIA
- 2 ANDES
- 3 C-ORAL-ES
- 4 LEMI
- 5 MAVIR
- 6 LEXDISP-MAD
- 7 VARITEX

Filtro(\*):

- 0 Todo
- 1 ID
- 2 Tipo
- 3 Año
- 4 Lugar
- 5 Provincia
- 6 Región

**[2] Patrón**

```
#pora#  
#para#
```

Distinción entre letras mayúsculas y minúsculas **-Explicación-** **-No-**

**[3] Output**

- 0 Ejemplo de input
- 1 Ítem
- 2 Ítem en todo texto

# (1) Input

**LETRAS-web: Programas para análisis de datos lingüísticos**

Idioma: Español

Página de output: Esta página

Cómo utilizar [PDF]

Cómo citar [PDF]

NUMEROS-web

Casilla de texto

Todo archivo

**[1] Input: CODEA-P1 + CODEA-P2 + CODEA-P3**

Archivo(\*):

- 11 CODEA-P1
- 12 CODEA-P2
- 13 CODEA-P3
- 14 CODEA-C1
- 15 CODEA-C2
- 16 CODEA-C3
- 17 CORHEN-P

Explicación (pdf):

- 1 ALICIA
- 2 ANDES
- 3 C-ORAL-ES
- 4 LEMI
- 5 MAVIR
- 6 LEXDISP-MAD
- 7 VARITEX


Filtro(\*):

- 0 Todo
- 1 ID
- 2 Tipo
- 3 Año
- 4 Lugar
- 5 Provincia
- 6 Región

## (2) Patrón

**-Reiniciar-**

COLABORACIÓN:  
LLI-UAM (Universidad  
Autónoma de Madrid)



**[2] Patrón**

```
#pora#  
#para#
```

Distinción entre letras mayúsculas y minúsculas **-Explicación-** **-No-**

## (3) Output

**EJECUTAR**

**[3] Output**

- 0 Ejemplo de input
- 1 Ítem
- 2 Ítem fuera de texto
- 3 Ítem en contexto
- 4 Tabla de frecuencias**
- 5 Tabla de ítems

/  Ordenar

## (4) Tabla de frecuencias

### [3b] Tabla de frecuencias / Tabla de ítems

(a) Vertical  
(\*):

- 0 Ítem
- 1 Patrón
- 2 Todo patrón
- 3 All
- 4 ID

Ordenar

(b) Horizontal:

- 3 Año
- 4 Lugar
- 5 Provincia
- 6 Región
- 7 Escribano

Ordenar

(c)  
Intervalo:

- 20
- 25
- 50
- 100
- 200

(d) Cálculo:

- 1 Frecuencia absoluta
- 2 % vertical
- 3 % horizontal
- 4 Por mil palabras
- 5 Por mil letras

(\*): Archivo: Filtro: Vertical: Selección múltiple es posible. (Click, [Ctrl] + Click)



# Variación gramatical del español moderno

Idioma: Español

Página de output: Esta página

Cómo utilizar [PDF]

Cómo citar [PDF]

NUMEROS-web

Casilla de texto

Todo archivo

-Reiniciar-

[1] Input: VARIGRAMA-A

Archivo(\*): 1 VARIGRAMA-A  
2 VARIGRAMA-B


Explicación (pdf) 1 VARIGRAMA

Filtro(\*)

0 Todo	0 N.Preg.
1 N.Preg.	1 1
2 Respuesta	2 2
3 N.Pers.	3 3
4 Ciudad	4 4
5 Sexo	5 5
6 Edad	6 6

[2] Patrón

\*\*



## (3) Output

The screenshot shows a software interface with a dark sidebar on the left containing a button labeled "EJECUTAR". The main area has a header "[3] Output" and a list box with the following items: "0 Ejemplo de input", "1 Ítem", "2 Ítem fuera de texto", "3 Ítem en contexto", "4 Tabla de frecuencias" (highlighted in blue), and "5 Tabla de ítems". To the right of this list is a checkbox labeled "Ordenar" which is unchecked.

Below this is a sub-header "[3b] Tabla de frecuencias / Tabla de ítems". Underneath are two list boxes:

- (a) Vertical (\*): A list box with items "5 N.Pers.", "6 Ciudad" (highlighted in blue), "7 Sexo", "8 Edad", and "9 Comentario". Below it is a checked checkbox labeled "Ordenar".
- (b) Horizontal: A list box with items "2 Respuesta" (highlighted in blue), "3 N.Pers.", "4 Ciudad", "5 Sexo", and "6 Edad". Below it is a checked checkbox labeled "Ordenar".

Ciudad	Sexo	1: DIGO	2: OIGO	3: NO	4: No C.
1:Oviedo	Hombre	1	2	4	0
1:Oviedo	Mujer	1	5	14	0
2:Pamplona	Hombre	1	2	9	1
2:Pamplona	Mujer	0	4	3	1
3:Alcalá	Hombre	0	2	6	0
3:Alcalá	Mujer	0	1	2	0
4:Madrid	Hombre	0	1	4	0
4:Madrid	Mujer	1	5	8	2

**FIN**