

**Vowel Phonemes**  
**Positional Occurrences**

	Initial		Medial		Final		Total		
							vowels	phonemes	
<i>a</i>	48	3.8 %	792	62.6 %	426	33.6 %	1 266	20.1 %	8.7 %
<i>a:</i>	—	—	470	87.5 %	67	12.5 %	537	8.5 %	3.7 %
<i>e</i>	8	0.6 %	1 021	81.0 %	232	18.4 %	1 261	20.0 %	8.8 %
<i>e:</i>	7	23.3 %	16	53.4 %	7	23.3 %	30	0.4 %	0.2 %
<i>i</i>	11	1.1 %	621	63.7 %	343	35.2 %	975	15.5 %	6.7 %
<i>i:</i>	5	1.1 %	385	80.5 %	88	18.4 %	478	7.6 %	3.3 %
<i>o</i>	78	7.7 %	695	68.6 %	240	23.7 %	1 013	16.1 %	6.9 %
<i>o:</i>	1	2.4 %	32	78.1 %	8	19.5 %	41	0.6 %	0.3 %
<i>u</i>	55	8.5 %	429	66.0 %	166	25.5 %	650	10.3 %	4.5 %
<i>u:</i>	—	—	37	66.1 %	19	33.9 %	56	0.9 %	0.4 %
<b>Total</b>	<b>212</b>	<b>3.4 %</b>	<b>4 499</b>	<b>71.3 %</b>	<b>1 596</b>	<b>25.3 %</b>	<b>6 307</b>	<b>100.0 %</b>	<b>43.4 %</b>

Figure 275

**Vowel Phonemes**  
**Tongue Position**

	High		Midial		Low		Total		
							vowels	phonemes	
<i>a</i>					1 266		1 266	20.1 %	8.7 %
<i>a:</i>					537		537	8.5 %	3.7 %
<i>e</i>			1 261				1 261	20.0 %	8.7 %
<i>e:</i>			30				30	0.4 %	0.2 %
<i>i</i>	975						975	15.5 %	6.7 %
<i>i:</i>	478						478	7.6 %	3.3 %
<i>o</i>			1 013				1 013	16.1 %	6.9 %
<i>o:</i>			41				41	0.6 %	0.3 %
<i>u</i>	650						650	10.3 %	4.5 %
<i>u:</i>	56						56	0.9 %	0.4 %
<b>Total</b>	<b>2 159</b>	<b>34.2 %</b>	<b>2 345</b>	<b>37.2 %</b>	<b>1 803</b>	<b>28.6 %</b>	<b>6 307</b>	<b>100.0 %</b>	<b>43.4 %</b>

Figure 276

**Vowel Phonemes**  
**Points of Articulation**

	Front		Central		Back		Total		
							vowels	phonemes	
<i>a</i>			1 266				1 266	20.1 %	8.7 %
<i>a:</i>			537				537	8.5 %	3.7 %
<i>e</i>	1 261						1 261	20.0 %	8.7 %
<i>e:</i>	30						30	0.4 %	0.2 %
<i>i</i>	975						975	15.5 %	6.7 %
<i>i:</i>	478						478	7.6 %	3.3 %
<i>o</i>					1 013		1 013	16.1 %	6.9 %
<i>o:</i>					41		41	0.6 %	0.3 %
<i>u</i>					650		650	10.3 %	4.5 %
<i>u:</i>					56		56	0.9 %	0.4 %
<b>Total</b>	<b>2 744</b>	<b>43.5 %</b>	<b>1 803</b>	<b>28.6 %</b>	<b>1 760</b>	<b>27.9 %</b>	<b>6 307</b>	<b>100.0 %</b>	<b>43.4 %</b>

Figure 277

**The Plosive Consonants**  
Points of Articulation

	Initial		Medial		Final		Total	
Labials	471	48.1 %	489	49.9 %	20	2.0 %	980	27.5 %
Alveolars	237	33.1 %	385	53.9 %	93	13.0 %	715	20.1 %
Palatals	70	25.2 %	194	69.8 %	14	5.0 %	278	7.8 %
Velars	327	20.6 %	900	56.8 %	358	22.6 %	1 585	44.6 %
<b>Total</b>	<b>1 105</b>	<b>31.1 %</b>	<b>1 968</b>	<b>55.3 %</b>	<b>485</b>	<b>13.6 %</b>	<b>3 558</b>	<b>100.0 %</b>

Figure 278

**The Plosive Consonants**  
*(including nasals)*  
Points of Articulation

	Initial		Medial		Final		Total	
Labials	608	41.3 %	731	49.6 %	134	9.1 %	1 473	31.8 %
Alveolars	365	32.6 %	625	55.7 %	131	11.7 %	1 121	24.2 %
Palatals	82	22.2 %	272	73.7 %	15	4.1 %	369	7.9 %
Velars	327	19.6 %	986	59.0 %	358	21.4 %	1 671	36.1 %
<b>Total</b>	<b>1 382</b>	<b>29.8 %</b>	<b>2 614</b>	<b>56.4 %</b>	<b>638</b>	<b>13.8 %</b>	<b>4 634</b>	<b>100.0 %</b>

Figure 279

**The Plosive Consonants**  
Voiceless versus Voiced

	Initial		Medial		Final		Total	
Voiceless	758	27.5 %	1 515	54.9 %	485	17.6 %	2 758	77.5 %
Voiced	347	43.4 %	453	56.6 %	—	—	800	22.5 %
<b>Total</b>	<b>1 105</b>	<b>31.1 %</b>	<b>1 968</b>	<b>55.3 %</b>	<b>485</b>	<b>13.6 %</b>	<b>3 558</b>	<b>100.0 %</b>

Figure 280

**The Plosive Consonants**  
*(including nasals)*  
**Voiceless versus Voiced**

	Initial		Medial		Final		Total	
Voiceless	758	27.5 %	1 515	54.9 %	485	17.6 %	2 758	59.5 %
Voiced	624	33.2 %	1 099	58.6 %	153	8.2 %	1 876	40.5 %
<b>Total</b>	<b>1 382</b>	<b>29.8 %</b>	<b>2 614</b>	<b>56.4 %</b>	<b>638</b>	<b>13.8 %</b>	<b>4 634</b>	<b>100.0 %</b>

Figure 281

**The Fricative Consonants**  
**Points of Articulation**

	Initial		Medial		Final		Total	
Labiodentals	169	35.7 %	287	60.7 %	17	3.6 %	473	16.2 %
Alveolars	380	20.6 %	1 377	74.7 %	87	4.7 %	1 844	63.2 %
Palatals	88	29.0 %	156	51.5 %	59	19.5 %	303	10.4 %
Velars	36	45.0 %	39	48.7 %	5	6.3 %	80	2.7 %
Laryngeals	157	71.4 %	63	28.6 %	—	—	220	7.5 %
<b>Total</b>	<b>830</b>	<b>28.4 %</b>	<b>1 922</b>	<b>65.8 %</b>	<b>168</b>	<b>5.8 %</b>	<b>2 920</b>	<b>100.0 %</b>

Figure 282

**The Fricative Consonants**

	Initial		Medial		Final		Total	
Voiceless	282	31.8 %	550	62.0 %	55	6.2 %	887	30.4 %
Voiced	548	26.9 %	1 372	67.5 %	113	5.6 %	2 033	69.6 %
<b>Total</b>	<b>830</b>	<b>28.4 %</b>	<b>1 922</b>	<b>65.8 %</b>	<b>168</b>	<b>5.8 %</b>	<b>2 920</b>	<b>100.0 %</b>

Figure 283

### The Semi-occlusive Consonants

	Initial		Medial		Final		Total	
c	40	24.8 %	83	51.6 %	38	23.6 %	161	23.5 %
ç	49	9.3 %	463	88.4 %	12	2.3 %	524	76.5 %
<b>Total</b>	<b>89</b>	<b>13.0 %</b>	<b>546</b>	<b>79.7 %</b>	<b>50</b>	<b>7.3 %</b>	<b>685</b>	<b>100.0 %</b>

Figure 284

### The Consonant Phonemes

#### Points of Articulation

	Initial		Medial		Final		Total	
Bilabials	608	41.3 %	731	49.6 %	134	9.1 %	1 473	17.9 %
Labiodentals	169	35.7 %	287	60.7 %	17	3.6 %	473	5.7 %
Alveolars	834	22.9 %	2 548	69.8 %	268	7.3 %	3 650	44.3 %
Palatals	170	25.3 %	428	63.7 %	74	11.0 %	672	8.2 %
Velars	363	20.7 %	1 025	58.6 %	363	20.7 %	1 751	21.3 %
Laryngeals	157	71.4 %	63	28.6 %	—	—	220	2.6 %
<b>Total</b>	<b>2 301</b>	<b>27.9 %</b>	<b>5 082</b>	<b>61.7 %</b>	<b>856</b>	<b>10.4 %</b>	<b>8 239</b>	<b>100.0 %</b>

Figure 285

### The Consonant Phonemes

#### Voiceless versus Voiced

	Initial		Medial		Final		Total	
Voiceless	1 129	26.1 %	2 609	60.3 %	590	13.6 %	4 328	52.5 %
Voiced	1 172	30.0 %	2 473	63.2 %	266	6.8 %	3 911	47.5 %
<b>Total</b>	<b>2 301</b>	<b>27.9 %</b>	<b>5 082</b>	<b>61.7 %</b>	<b>856</b>	<b>10.4 %</b>	<b>8 239</b>	<b>100.0 %</b>

Figure 286

## The Consonant Phonemes

### Manner of Articulation

	Initial		Medial		Final		Total	
Stops	1 105	31.1 %	1 968	55.3 %	485	13.6 %	3 558	44.2 %
Nasals	277	25.8 %	646	60.0 %	153	14.2 %	1 076	13.1 %
Fricatives	746	37.5 %	1 124	56.7 %	114	5.8 %	1 981	24.0 %
Laterals	87	9.3 %	797	84.9 %	54	5.8 %	938	11.4 %
Vibrants	—	—	1	100 %	—	—	1	0.0 %
Affricates	89	13.0 %	546	79.7 %	50	7.3 %	685	8.3 %
<b>Total</b>	<b>2 301</b>	<b>27.9 %</b>	<b>5 082</b>	<b>61.7 %</b>	<b>856</b>	<b>10.4 %</b>	<b>8 239</b>	<b>100.0 %</b>

	Initial		Medial		Final		Total	
Stops	1 382	29.8 %	2 614	56.4 %	638	13.8 %	4 634	56.3 %
Fricatives	830	28.4 %	1 922	65.8 %	168	5.8 %	2 920	35.4 %
Affricates	89	13.0 %	546	79.7 %	50	7.3 %	685	8.3 %
<b>Total</b>	<b>2 301</b>	<b>27.9 %</b>	<b>5 082</b>	<b>61.7 %</b>	<b>856</b>	<b>10.4 %</b>	<b>8 239</b>	<b>100.0 %</b>

Figure 287

### Syllables

	Open		Close		Total	
Monosyllables	185	51.1 %	177	48.9 %	362	100.0 %
Disyllables	1 347	65.7 %	703	34.3 %	2 050	100.0 %
Trisyllables	2 139	69.7 %	930	30.3 %	3 069	100.0 %
Tetrasyllables	752	83.9 %	144	16.1 %	896	100.0 %
Pentasyllables	56	80.0 %	14	20.0 %	70	100.0 %
Hexasyllables	10	83.3 %	2	16.7 %	12	100.0 %
<b>Total</b>	<b>4 489</b>	<b>69.5 %</b>	<b>1 970</b>	<b>30.5 %</b>	<b>6 459</b>	<b>100.0 %</b>

Figure 288