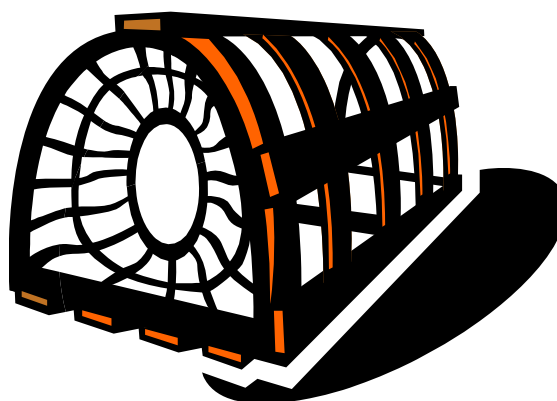


SSP: 3-element clusters: /str/ /spr/ /skr/ /spl/ /skw/ vs. 2-element clusters



*strap*

*chin strap*



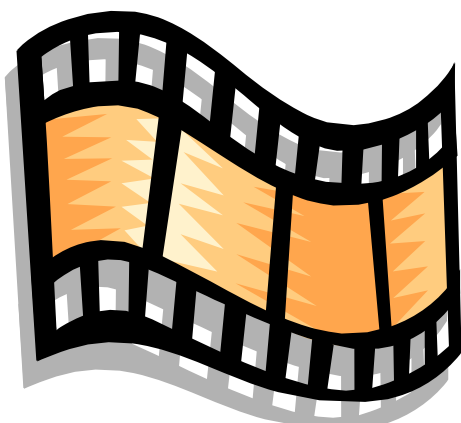
*trap*



*street*

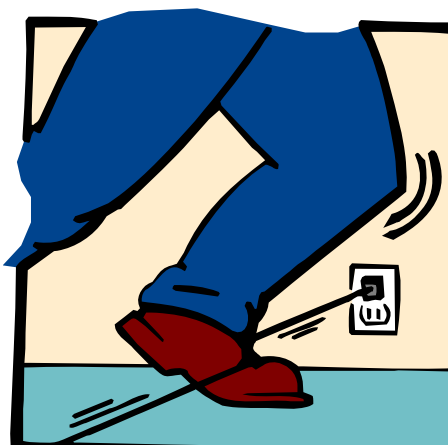


*treat*



*strip*

*film strip*

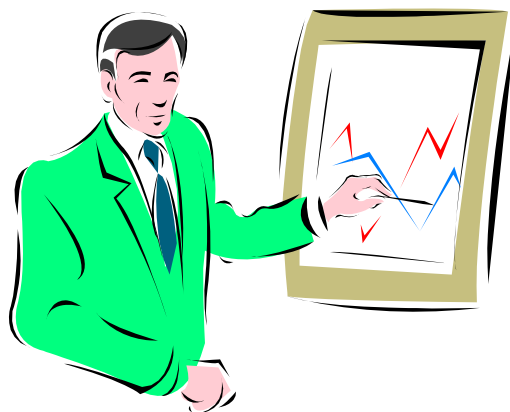


*trip*

SSP: 3-element clusters: /str/ /spr/ /skr/ /spl/ /skw/ vs. 2-element clusters



strainer



trainer



spray



pray



screw



crew

SSP: 3-element clusters: /str/ /spr/ /skr/ /spl/ /skw/ vs. 2-element clusters



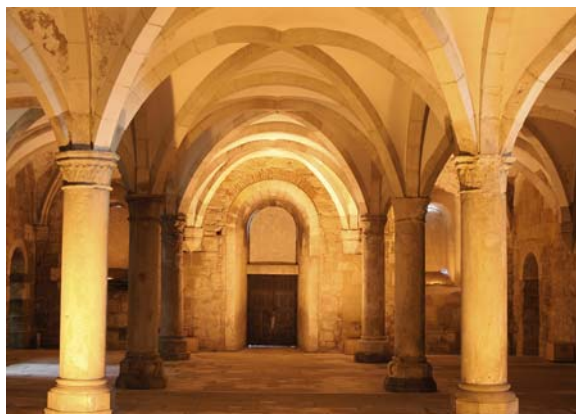
*scrum*  
football scrum



*crumb*



*script*



*crypt*



*scrunchie*



*crunchy*

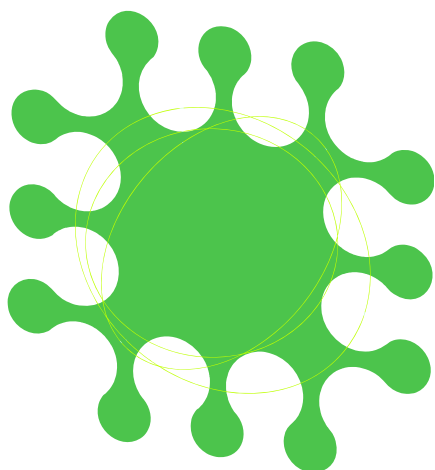
SSP: 3-element clusters: /str/ /spr/ /skr/ /spl/ /skw/ vs. 2-element clusters



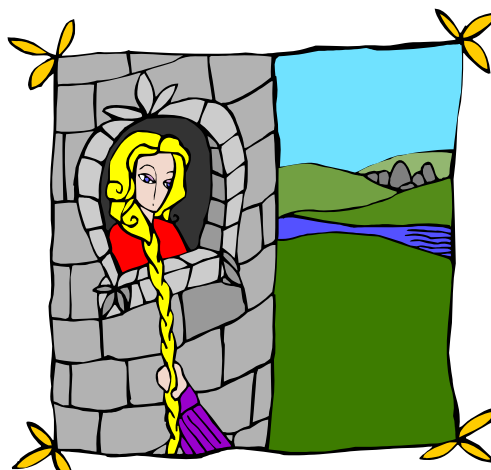
splatter



platter



splat



plait  
(braid)



squad



quad

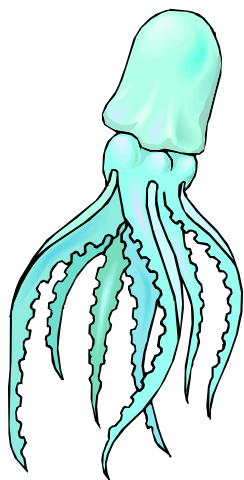
SSP: 3-element clusters: /str/ /spr/ /skr/ /spl/ /skw/ vs. 2-element clusters



*squire*  
medieval squire



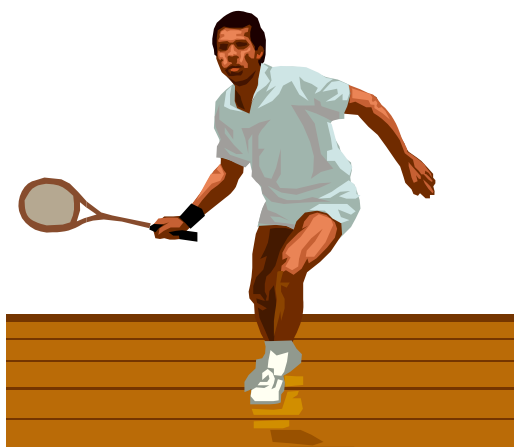
*choir*



*squid*



*quid*





*squash*



*quash*

## SSP: 3-element clusters: /str/ /spr/ /skr/ /spl/ /skw/ vs. 2-element clusters

Most Complex		Sonority Difference	
 	Voiceless fricative + nasal	sm sn	2
	Voiceless fricative + liquid	fl fr θr sl	3
	Voiced stop + liquid or voiceless fricative + glide	bl br dr gl gr sw	4
	Voiceless stop + liquid	pl pr tr kl kr	5
	Voiceless stop + glide	tw kw	6
Least Complex			

Consider targeting 3-element clusters, and 2-element clusters with smaller sonority differences (2 or 3 or 4).

vowels	0	voiced fricatives	4
glides	1	voiceless fricatives	5
liquids	2	voiced stops	6
nasals	3	voiceless stops	7

### Clusters

Consonant clusters are more marked than singletons, but are some clusters *more* marked than others? One approach to classifying two-element consonant clusters according to markedness is to rank them according to their sonority difference score, using their numerical values from a sonority hierarchy (Ohala, 1999). This approach is called the Sonority Sequencing Principle or SSP. For example, /kw/ (7 minus 1) has a sonority difference score of 6, whereas /fl/ (5 minus 2) scores 3. Clusters with SMALL sonority differences of 2, 3 or 4 may better promote generalised change to singletons *and* clusters. Gierut (1999), Gierut & Champion (2001), and Morrisette, Farris & Gierut (2006) provide evidence and target selection guidelines.

### Targeting Adjuncts

Note that the adjuncts /sp/, /st/ and /sk/ do not conform to the sonority sequencing principle with respect to generalisation.

### Targeting the 3-element Clusters

**Prior knowledge of the second element and the third element is required.**

The 3-element consonant clusters, /spr/ /str/ /skr/ /spl/ and /skw/ should only be targeted if the child already has the relevant stop (/p/, /t/ or /k/) *and* the relevant liquid (/l/) or glide (w) present in his or her phonemic inventory. For example, if targeting /skw/ the child should have productive knowledge of /k/ and /w/, but does not need to have productive knowledge of /s/.

### Targeting the 2-element Clusters

**Prior knowledge of the first element and/or the second element is not required.**

The 2-element clusters, /sm/, /sn/, /fl/ etc. displayed on the chart above, can be targeted irrespective of whether the child has previous knowledge of either or both of the two elements. For example, in targeting /sl/ the child may or may not have previous knowledge of /s/ and/or /l/.

**strap trap street treat strip trip strainer trainer spray pray scrum crumb script  
crypt scrunchie crunchy splatter platter splat plait squad quad squire choir  
squid quid squash quash**