CHAPTER III
MANY TO ONE CORRESPONDENCE (Continued)

3.14.1. p = /p/, (Ø) Initial Occurrence

The grapheme p occurs initially in ten combinations. These ten combinations are pa-, pe-, pi-, pl-, pn-, po-, pr-, ps-, pu-, py- and they occur in one thousand one hundred and seventy-four words. There are no words with initial occurrence of pb-, pc-, pd-, pf-, pg-, ph-, pj-, pk-, pm-, pp-, pq-, pt-, pv-, pw-, px-, pz- combinations.

The grapheme p in the combinations of pa-, pe-, pi-, pl-, po-, pr-, pu-, py- is pronounced as /p/.

p in the combination pa- is pronounced as /p/ and occurs in one hundred and ninety-six words (17%).
Example:
1. pace /peis/ 2. pack /peek/

p in the combination pe- is pronounced as /p/ and occurs in one hundred and sixty-seven words (14.5%).
Example:
1. pea /pi:/ 2. peace /pi:s/

p in the combination pi- is pronounced as /p/ and occurs in eighty-seven words (7.5%).
Example:
1. pianist /pi:ənist/ 2. pick /pɪk/

p in the combination pt- is pronounced as /p/ and occurs in ninety-nine words (8.6%).
Example:
1. placard /plaːkaːd/ 2. place /pleɪs/
p in the combination po- is pronounced as /p/ and occurs in one hundred and fifty-two words (13.2%).

Example:
1. poach /pəutʃ/ 2. pod /pɒd/

p in the combination pr- is pronounced as /p/ and occurs in three hundred and fifty-nine words (31.1%).

Example:
1. practicable /praəktɪkəbl/ 2. practice /praɪktis/

p in the combination pu- is pronounced as /p/ and occurs in eighty-nine words (7.7%).

Example:
1. pub /pʌb/ 2. public /pʌblɪk/

p in the combination py- is pronounced as /p/ and occurs in five words (0.4%).

Example:
1. pylon /pəˈlɒn/ 2. pyramid /pɪrəˈmɪd/

The grapheme p in the combinations of pn-, ps- is pronounced as (Ø) (it is silent).

p in the combination pn- is pronounced as (Ø) and occurs only in two words (10%).

Example:
1. pneumatic /njuːˈmætrɪk/ 2. pneumonia /njuːˈmæniə/  

p in the combination ps- is pronounced as (Ø) and occurs in eighteen words (90%).

Example:
1. psalm /saːm/ 2. psych /saɪk/
Table showing grapheme combination of p and corresponding phoneme in the initial occurrence

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522
Graphs showing initial occurrence and corresponding phonemes of grapheme p

- Column graph:
  - Phonemes: /p/ and (ə)
  - /p/ occurs 1154 times, (ə) occurs 20 times (0.2%)

- Pie chart:
  - /p/ accounts for 98.2% of occurrences, (ə) accounts for 0.2%
The above graphs show the number of words having p grapheme initial occurrence and their corresponding phonemes. Phoneme /p/ occurs initial in one thousand one hundred and fifty-four words (98%) which is the maximum. Phoneme (Ø) (it is silent) occurs in twenty words (2%) which is the least. Totally one thousand one hundred and seventy-four words have grapheme p in initial occurrence.

3.14.2. p = /p/, (Ø) Medially before Occurrence


p in the combination -pa- is pronounced as /p/ and occurs in one hundred and sixty-nine words (10.8%).

Example:
1. aqaque /aupetik/ 2. ballpark /ba:lpə:k/

p in the combination -pb- is pronounced as /p/ and occurs only in three words (0.2%).

Example:
1. scrapbook /skraepbuk/ 2. stepbrother /stepbraða/
p in the combination -pc- is pronounced as /p/ and occurs only in three words (0.2%).
Example:
1. stepchild /steptʃaɪld/ 2. popcorn /pɔpˈkɔrn/

p in the combination -pd- is pronounced as /p/ and occurs only in three words (0.2%).
Example:
1. slapdash /ˈslæpdæʃ/ 2. update /ˈʌpdat/ 

p in the combination -pe- is pronounced as /p/ and occurs in three hundred and seventy words (23.6%).
Example:
1. antelope /ˈæntəlp/ 2. aperture /ˈæpətʃər/ 

p in the combination -pf- is pronounced as /p/ and occurs only in three words (0.2%).
Example:
1. stepfather /ˈsteptfaðər/ 2. helpful /ˈhelpfl/ 

p in the combination -ph- is pronounced as /p/ and occurs in eight words (0.5%).
Example:
1. uphold /ʌˈhaʊld/ 2. diphtheria /dɪpˈθɜːriə/ 

p in the combination -pi- is pronounced as /p/ and occurs in one hundred and fifty-eight words (10.1%).
Example:
1. alpine /ˈælpən/ 2. apiece /əpiːs/ 

p in the combination -pk- is pronounced as /p/ and occurs only in three words (0.2%).
Example:
1. napkin /næpkin/ 2. pumpkin /pʌmpkin/

p in the combination -pi- is pronounced as /p/ and occurs in one hundred and thirty-four words (8.5%).

Example:
1. airplane /eəpleɪn/ 2. birthplace /bɜːθpleɪs/

p in the combination -pm- is pronounced as /p/ and occurs in five words (0.3%).

Example:
1. equipment /ɪkˈwɪpment/ 2. shipment /ʃɪpment/

p in the combination -pn- is pronounced as /p/ and occurs only in two words (0.1%).

Example:
1. hypnotize /hɪpəˈtaɪz/ 2. hypnosis /hɪpˈnəʊsɪs/

p in the combination -po- is pronounced as /p/ and occurs in one hundred and ninety-eight words (12.6%).

Example:
1. airport /eəˈpɔːt/ 2. apology /əˈpəʊli/ 3. apricot /ˈeɪprɪkət/

p in the combination -pr- is pronounced as /p/ and occurs in one hundred and thirteen words (7.2%).

Example:
1. malpractice /mælˈpræktɪs/ 2. apricot /ˈeɪprɪkət/

p in the combination -ps- is pronounced as /p/ and occurs in thirty words (1.9%).

Example:
1. corpse /kɔːps/ 2. eclipse /ɪklɪps/
p in the combination -pt- is pronounced as /p/ and occurs in one hundred and forty-six words (9.3%).
Example:
1. abrupt /əbrʌpt/ 2. accept /əksept/

p in the combination -pu- is pronounced as /p/ and occurs in fifty-eight words (3.7%).
Example:
1. amputate /əmˈpjuːtət/ 2. campus /ˈkæmpəs/

p in the combination -pw- is pronounced as /p/ and occurs only in four words (0.2%).
Example:
1. sleepwalk /slɪːpwaːk/ 2. upwards /ˈʌpwaːdz/

p in the combination -py- is pronounced as /p/ and occurs only in one word (0.1%).
Example:
1. copyright /ˈkɒpərɪt/

The grapheme p in the combinations of -pb- is pronounced as (Ø) (it is silent).

p in the combination -pb- is pronounced as (Ø) and occurs only in two words (100%).
Example:
1. raspberry /ˈræzərbi/ 2. cupboard /ˈkʌbɔrd/
Table showing grapheme combination of p and corresponding phoneme in the medially before occurrence

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Graphs showing medially before occurrence and corresponding phonemes of grapheme p

Graph 1: Bar graph showing the number of occurrences of phonemes /p/ and (ø). The graph shows that /p/ occurs 1568 times and (ø) occurs 2 times, giving a percentage of 0.2%.

Graph 2: Circle graph showing the comparison between /p/ and (ø). The graph indicates that /p/ accounts for 99.8% of the occurrences.
The above graphs show the number of words having p grapheme medially before occurrence and their corresponding phonemes. Phoneme /p/ occurs medially before in one thousand five hundred and sixty-eight words (99.8%) which is the maximum. Phoneme (Ø) (it is silent) occurs only in two words (0.2%) which is the least. Totally one thousand five hundred and seventy words have grapheme p in medially before occurrence.

3.14.3. p = /p/, (Ø) Medially after Occurrence


p in the combination -ap- is pronounced as /p/ and occurs in one hundred and one words (7.5%).

Example:
1. napkin /naepkin/ 2. scrapbook /skraepbuk/

p in the combination -bp- is pronounced as /p/ and occurs only in one word (0.1%).

Example:
1. subpoena /sabpi:na/
p in the combination -dp- is pronounced as /p/ and occurs in nine words (0.7%).

Example:
1. deadpan /dedpæn/ 2. sandpaper /saendpeipər/

p in the combination -ep- is pronounced as /p/ and occurs in one hundred and eighty-eight words (14%).

Example:
1. repaid /ri:ped/ 2. separable /sepərəbl/

p in the combination -fp- is pronounced as /p/ and occurs only in three words (0.2%).

Example:
1. off-peak /əfpi:k/ 2. self-portrait /selfpɔːtret/

p in the combination -gp- is pronounced as /p/ and occurs only in one word (0.1%).

Example:
1. eggplant /egplaːnt/

p in the combination -hp- is pronounced as /p/ and occurs in seven words (0.5%).

Example:
1. toothpaste /tuːθpeist/ 2. toothpick /tuːθpɪk/

p in the combination -ip- is pronounced as /p/ and occurs in one hundred words (7.4%).

Example:
1. bipartisan /bərpaˈtɹizən/ 2. principal /ˈprɪnsəpəl/

p in the combination -kp- is pronounced as /p/ and occurs in six words (0.4%).
Example:
1. backpack /bækpaːk/ 2. cockpit /kokpit/

p in the combination -lp- is pronounced as /p/ and occurs in twenty-seven words (2%).

Example:
1. palpable /pælpəbl/ 2. helpful /helpfl/

p in the combination -mp- is pronounced as /p/ and occurs in two hundred and sixty-five words (19.8%).

Example:
1. impact /ɪmpəekt/ 2. compact /kəmpækt/

p in the combination -np- is pronounced as /p/ and occurs in twenty-five words (1.9%).

Example:
1. unpaid /ʌnpərd/ 2. downplay /daunpleɪ/

p in the combination -op- is pronounced as /p/ and occurs in ninety-nine words (7.4%).

Example:
1. popcorn /pɔpˈkɔːn/ 2. leopard /ˈlepdər/

p in the combination -rp- is pronounced as /p/ and occurs in sixty-six words (4.9%).

Example:
1. overpass /ˈɔvəpɑːs/ 2. warpath /ˈwaːpɑːθ/

p in the combination -sp- is pronounced as /p/ and occurs in one hundred and fifty-two words (11.3%).

Example:
1. lifespan /ˈlaɪfspeɪn/ 2. despair /dɪˈspɛər/
p in the combination -tp- is pronounced as /p/ and occurs in twelve words (0.9%).
Example:
1. outpatient /autpeɪt/  2. marketplace /maːkɪtplaɪəs/

p in the combination -up- is pronounced as /p/ and occurs in twenty-seven words (2%).
Example:
1. aupair /əʊpeə/  2. occupant /ˌokjəˈpænt/ 

p in the combination -wp- is pronounced as /p/ and occurs only in three words (0.2%).
Example:
1. windowpane /ˈwɪndəupeɪn/  2. viewpoint /ˈvjuːpɔɪnt/ 

p in the combination -xp- is pronounced as /p/ and occurs in fifty-seven words (4.2%).
Example:
1. expand /ɪkˈspaːnd/  2. expanse /ɪkˈspaːns/ 

p in the combination -yp- is pronounced as /p/ and occurs in thirty-four words (2.5%).
Example:
1. bypass /ˈbæIPAːs/  2. hype /haɪp/

The grapheme p in the combinations of -ip-, -mp-, -sp-, -up- is pronounced as (Ø) (it is silent).

p in the combination -ip- is pronounced as (Ø) and occurs only in two words (22.2%).
Example:

1. receipt  /riːsɪt/  2. receipts  /rɪsɪts/

   p in the combination -mp- is pronounced as (Ø) and occurs in five words (55.6%).

Example:

1. assumption  /əsəmʃən/  2. glimpse  /glimps/

   p in the combination -sp- is pronounced as (Ø) and occurs only in one word (11.1%).

Example:

1. raspberry  /raːzbærɪ/

   p in the combination -up- is pronounced as (Ø) and occurs only in one word (11.1%).

Example:

1. cupboard  /ˈkʌbɔrd/
Table showing grapheme combination of p and corresponding phoneme in the medially after occurrence

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Graphs showing **medially after occurrence** and corresponding phonemes of grapheme **p**

**Bar Graph:**
- **Phonemes:** /p/ (1341), (ə) (9)
- **Number of Words:** 536

**Pie Chart:**
- **(ə), 9, 1%**
- **/p/, 1341, 99%**
The above graphs show the number of words having p grapheme medially after occurrence and their corresponding phonemes. Phoneme /p/ occurs medially after in one thousand three hundred and forty-one words (99%) which is the maximum. Phoneme (Ø) (it is silent) occurs in nine words (1%) which is the least. Totally one thousand three hundred and fifty words have grapheme p in medially after occurrence.
3.15.2. r = /r/, /ʃ/, /ɹ/-(Ø), (Ø) Medially before Occurrence


The grapheme r in the combinations of -ra-, -re-, -ri-, -ro-, -ru-, -ry- is pronounced as /r/.

r in the combination -ra- is pronounced as /r/ and occurs in nine hundred and four words (26.2%).
Example:
1. abstract /əbstræk/ 2. abrasive /əbˈreɪsɪv/

r in the combination -re- is pronounced as /r/ and occurs in six hundred and eighty-seven words (27.4%).
Example:
1. actress /əkˈtræs/ 2. agree /əɡri:/

r in the combination -ri- is pronounced as /r/ and occurs in eight hundred and four words (22.3%).
Example:
1. acrid /ˈækrid/ 2. aerial /ˈɛərɪəl/

r in the combination -ro- is pronounced as /r/ and occurs in six hundred and twenty-eight words (17.4%).
Example:
1. abroad /əˈbraʊd/ 2. across /əˈkrɒs/
Example:
1. abrupt /abrápt/ 2. bruise /bruːz/

   r in the combination -ry- is pronounced as /r/ and occurs in two hundred
   and ten words (5.8%).

Example:
1. accessory /əksesəri/ 2. acrylic /əkrɪlɪk /

   The grapheme r in the combinations of -rb-, -rc-, -rd-, -rj-, -rk-, -rl-,
   -rm-, -rn-, -rp-, -rs-, -rt-, -rv- is pronounced as /ɜː/.

   r in the combination -rb- is pronounced as /ɜː/ and occurs in twenty-five
   words (5%).

Example:
1. adverb /ædvɜːb/ 2. blurb /blaːb/

   r in the combination -rc- is pronounced as /ɜː/ and occurs in thirty-six
   words (7.2%).

Example:
1. birch /bɜːtʃ/ 2. church /tʃɜːtʃ/

   r in the combination -rd- is pronounced as /ɜː/ and occurs in eighteen
   words (3.6%).

Example:
1. blackbird /blækbɜːd/ 2. curdle /kɜːdl/

   r in the combination -rj- is pronounced as /ɜː/ and occurs only in one
   word (0.2%).

Example:
1. perjury /pɜːdʒəri/
r in the combination -rk- is pronounced as /ɜ:/ and occurs in thirty-five words (7%).
Example:
1. firework /fərˈwɜːk/ 2. jerk /dʒɜːk/

r in the combination -rl- is pronounced as /ɜ:/ and occurs in fourteen words (2.8%).
Example:
1. curl /kɜːl/ 2. earl /ɜːl/

r in the combination -rm- is pronounced as /ɜ:/ and occurs in forty-six words (9.2%).
Example:
1. affirm /əfɜːm/ 2. confirm /kənɜːm/

r in the combination -rn- is pronounced as /ɜ:/ and occurs in seventy-four words (14.8%).
Example:
1. alternate /ɔːltərət/ 2. burn /bɜːrn/

r in the combination -rp- is pronounced as /ɜ:/ and occurs in twenty words (4%).
Example:
1. burp /bɜːp/ 2. purple /pɜːpl/

r in the combination -rs- is pronounced as /ɜ:/ and occurs in seventy-seven words (15.5%).
Example:
1. adverse /ədˈvɜːs/ 2. averse /əvɜːs/

r in the combination -rt- is pronounced as /ɜ:/ and occurs in one hundred and seven words (21.6%).
Example:
1. advert /ædvə:t/ 2. assert /əsə:t/

r in the combination -rv- is pronounced as /ɜ:/ and occurs in forty words (8%).
Example:
1. cervix /sɜːvɪks/ 2. conserve /kənsərv/ 

The grapheme r in the combinations of -re-, -rs- are pronounced as /r/- (Ø).

r in the combination -re- is pronounced as /r/- (Ø) and occurs in two hundred and fifty-six words (98%).
Example:
1. acre /eɪkər/ 2. adore /ədər/ 

r in the combination -rs- is pronounced as /r/- (Ø) and occurs only in two words (0.8%).
Example:
1. misunderstand /mɪsənˈdərstaɪnd/ 2. misunderstanding /mɪsənˈdərstaɪndɪŋ/ 


r in the combination -rb- is pronounced as (Ø) and occurs in forty-five words (3.1%).
Example:
1. absorb /əbˈzɔːb/ 2. airbag /eəˈbeɪɡ/ 

r in the combination -rc- is pronounced as (Ø) and occurs in ninety-four words (6.5%).
Example:
1. archaic /a:kenk/ 2. arctic /a:ktrik/

r in the combination -rd- is pronounced as (Ø) and occurs in one hundred and sixty-five words (11.4%).

Example:
1. aboard /əbɔːd/ 2. absurd /əbzsə:d/

r in the combination -re- is pronounced as (Ø) and occurs in ninety-nine words (6.8%).

Example:
1. armored /a:məd/ 2. battered /bætəd/

r in the combination -rf- is pronounced as (Ø) and occurs in forty-eighty words (3.3%).

Example:
1. airfare /eəfər/ 2. barf /bɑːf/

r in the combination -rg- is pronounced as (Ø) and occurs in ninety-five words (6.6%).

Example:
1. allergy /ələdʒi/ 2. arguable /ɑːgjuəbl/

r in the combination -rh- is pronounced as (Ø) and occurs in seventeen words (1.2%).

Example:
1. overhead /əuvəhɛd/ 2. perhaps /pəhæps/

r in the combination -rj- is pronounced as (Ø) and occurs only in four words (0.3%).

Example:
1. carjacking /kaːdʒækɨŋ/ 2. interjection /ɪntədʒekʃən/
r in the combination -rk- is pronounced as (Ø) and occurs in forty-four words (3%).
Example:
1. bark /ba:k/ 2. dark /da:k/

r in the combination -rl- is pronounced as (Ø) and occurs in fifty-two words (2.9%).
Example:
1. airless /eələs/ 2. airline /eələin/

r in the combination -rm- is pronounced as (Ø) and occurs in one hundred and twenty-eight words (8.8%).
Example:
1. abnormal /æbənɔːməl/

r in the combination -rn- is pronounced as (Ø) and occurs in ninety-four words (6.5%).
Example:
1. acorn /eɪkən/ 2. adorn /ədɔːn/

r in the combination -ro- is pronounced as (Ø) and occurs only in two words (0.1%).
Example:
1. iron /aɪən/ 2. ironing /aɪənɪŋ/

r in the combination -rp- is pronounced as (Ø) and occurs in fifty-seven words (3.9%).
Example:
1. airplane /eəpliːn/ 2. carp /kɑːp/

r in the combination -rq- is pronounced as (Ø) and occurs only in one word (0.1%).
The above graphs show the number of words having r grapheme medially before occurrence and their corresponding phonemes. Phoneme /r/ occurs medially before in three thousand six hundred and five words (62%) which are the maximum. Phoneme (ø) (it is silent) occurs in one thousand four hundred and forty-seven words (25%), phoneme /ɔ:/ occurs in four hundred and ninety-five hundred words (9%) and phoneme /r/~(ø) (it is silent) occurs in two hundred and sixty-one words (4%) which is the least. Totally five thousand eight hundred and seven words have grapheme r in medially before occurrence.

3.15.3. r = /r/, /ɔ:/, /ɔ:-r/, /r/~(ø), (ø) Medially after Occurrence


r in the combination -ar- is pronounced as /r/ and occurs in two hundred and seventy-three words (12.3%).

Example:

1. apparatus /æpərətəs/ 2. appearance /ˌærɪnəs/

r in the combination -br- is pronounced as /r/ and occurs in sixty-one words (2.7%).
Example:
1. abrasive /əbˈreɪsɪv/ 2. abroad /əˈbrɔːd/  
   *r* in the combination -cr- is pronounced as /r/ and occurs in one hundred and forty-six words (6.6%).
Example:
1. across /əˈkrɒs/ 2. acrylic /əkrɪlɪk/  
   *r* in the combination -dr- is pronounced as /r/ and occurs in fifty-nine words (2.6%).
Example:
1. fundraiser /fʌnˈdrestər/ 2. fundraising /fʌnˈdrestɪŋ/  
   *r* in the combination -er- is pronounced as /r/ and occurs in four hundred and twenty-seven words (19.2%).
Example:
1. berate /bɛrət/ 2. alteration /ɔːltreɪʃn/  
   *r* in the combination -fr- is pronounced as /r/ and occurs in forty-three words (1.9%).
Example:
1. afraid /əˈfreɪd/ 2. defraud /dɛfˈrɔːd/  
   *r* in the combination -gr- is pronounced as /r/ and occurs in one hundred and fifteen words (5.2%).
Example:
1. aggravate /əɡˈrɛvət/ 2. anagram /ænˈɡræm/  
   *r* in the combination -hr- is pronounced as /r/ and occurs in eighty-two words (3.7%).
Example:
1. enthrall /ɪnˈθɔːrəl/ 2. enshrined /ɪnʃrənd/
r in the combination -ir- is pronounced as /r/ and occurs in forty-eight words (2.1%).

Example:
1. admirable /ədərəbl/ 2. admiral /ədərməl/

r in the combination -kr- is pronounced as /r/ and occurs only in three words (0.1%).
Example:
1. bankrupt /bæŋkræpt/ 2. cockroach /kʊkrəutʃ/

r in the combination -lr- is pronounced as /r/ and occurs in six words (0.3%).
Example:
1. already /əˈlredi/ 2. cavalry /ˈkaevlri/

r in the combination -mr- is pronounced as /r/ and occurs only in three words (0.1%).
Example:
1. comrade /kəmreɪd/ 2. primrose /prɪmrəuz/

r in the combination -nr- is pronounced as /r/ and occurs in twenty-three words (1%).
Example:
1. enrage /ɪnreɪdʒ/ 2. enrich /ɪnriːtʃ/

r in the combination -or- is pronounced as /r/ and occurs in one hundred and fifty words (6.7%).
Example:
1. anorak /ænərək/ 2. accessory /əkˈsɛsəri/
Example:
1. appraise  /əˈpreɪz/  2. appraisal  /əˈpreɪzl/  
   r in the combination -sr- is pronounced as /r/ and occurs in twelve words (0.5%).

Example:
1. disregard  /dɪsˈɹɪɡəd/  2. disrupt  /dɪsˈrʌpt/  
   r in the combination -tr- is pronounced as /r/ and occurs in four hundred and nineteen words (18.8%).

Example:
1. abstract  /əˈbstrækt/  2. arbitrary  /əˈbɛtɪri/  
   r in the combination -ur- is pronounced as /r/ and occurs in twelve words (0.5%).

Example:
1. accuracy  /əˈkrəsɪ/  2. accurate  /əˈkrərət/  
   r in the combination -wr- is pronounced as /r/ and occurs in ten words (0.4%).

Example:
1. unwrap  /ˈʌnraep/  2. rewrite  /riˈrɛit/  
   r in the combination -yr- is pronounced as /r/ and occurs in twelve words (0.5%).

Example:
1. tyrant  /ˈtaɪrənt/  2. tyranny  /ˈtaɪrəni/  

The grapheme r in the combinations of -ar-, -cr-, -er-, -ir-, -or-, -ur- is pronounced as /ɜː:/.

r in the combination -ar- is pronounced as /ɜː:/ and occurs in twenty-four words (4.7%).
Example:

1. earl /ɜːl/ 2. earn /ɜːn/

- in the combination -cr- is pronounced as /ɜː/ and occurs only in one word (0.2%).

Example:

1. excursion /ɪkskɜːzn/ 

- in the combination -er- is pronounced as /ɜː/ and occurs in two hundred and forty-six words (48.2%).

Example:

1. alternate /ɔːltər/ 2. adverse /ədˈvɜːs/ 

- in the combination -ir- is pronounced as /ɜː/ and occurs in sixty-four words (12.5%).

Example:

1. affirm /əfɜːm/ 2. confirm /kənfɜːm/ 

- in the combination -or- is pronounced as /ɜː/ and occurs in thirty-six words (7%).

Example:

1. workable /ˈwɜːkbəl/ 2. worker /ˈwɜːkər/ 

- in the combination -ur- is pronounced as /ɜː/ and occurs in one hundred and thirty-five words (26.5%).

Example:

1. blurb /ˈblɜːb/ 2. curdle /ˈkɜːdl/ 

The grapheme - in the combinations of -ar-, -er-, -gr-, -ir-, -or-, -rr-, -tr-, -ur-, -vr-, -yr- is pronounced as /r/-∅.

- in the combination -ar- is pronounced as /r/-∅ and occurs in eighty-three words (32.3%).
Example:
1. fanfare /ˈfænfaɪər/ 2. fare /feər/
   r in the combination -er- is pronounced as /r/- (θ) and occurs only in three words (1.2%).
Example:
1. fibre /ˈfaɪbər/ 2. calibre /ˈkælɪbreɪr/
   r in the combination -er- is pronounced as /r/- (θ) and occurs in five words (1.9%).
Example:
1. misunderstand /ˌmɪsnərˈstænd/ 2. elsewhere /ˈelsweər/
   r in the combination -er- is pronounced as /r/- (θ) and occurs only in one word (0.4%).
Example:
1. ogre /ˈoʊɡr/ 2. elsewhere /ˈelsweər/
   r in the combination -ir- is pronounced as /r/- (θ) and occurs in thirty words (11.6%).
Example:
1. empire /ˈempaɪər/ 2. enquire /ɪnˈkwɪr/
   r in the combination -or- is pronounced as /r/- (θ) and occurs in thirty-four words (13.2%).
Example:
1. motorway /ˈmɔtərweɪ/ 2. encore /ˈɛnkwɔːr/
   r in the combination -or- is pronounced as /r/- (θ) and occurs in eight words (3.1%).
Example:
1. kilometre /ˌkɪliˈmɛtr/ 2. lacklustre /ˈlæklʌstər/
r in the combination -ur- is pronounced as /r/-∅ and occurs in eighty-six words (33.5%).
Example:
1. enamoured /ɪnˈmɑːrəd/ 2. endure /ɪnˈdjuər/  

r in the combination -vr- is pronounced as /r/-∅ and occurs only in two words (0.8%).
Example:
1. manoeuvre /mænəˈvʊər/ 2. outmanoeuvre /aʊtˌmænəˈvʊər/  

r in the combination -yr- is pronounced as /r/-∅ and occurs only in three words (1.2%).
Example:
1. pyre /paɪr/ 2. tyre /taɪr/ 

The grapheme r in the combinations of -ar-, -cr-, -er-, -ir-, -or-, -rr-, -sr-, -tr-, -ur- is pronounced as ∅.

r in the combination -ar- is pronounced as ∅ and occurs in four hundred and fifty-six words (32.4%).
Example:
1. bark /bɑːk/ 2. marquee /ˈmaːkiː/  

r in the combination -cr- is pronounced as ∅ and occurs only in two words (0.1%).
Example:
1. alacrity /ələˈkratı/ 2. acre /ˈeɪkər/  

r in the combination -er- is pronounced as ∅ and occurs in three hundred fifty-four words (25.1%).
Example:
1. interval /ɪntəˈvɪl/ 2. intervene /ɪntəˈvɪn/
r in the combination -ir- is pronounced as (Ø) and occurs in fifty-six words (4%).
Example:
1. airbag /eəbæɡ/ 2. firework /faɪəwɜːk/

r in the combination -or- is pronounced as (Ø) and occurs in four hundred and fifty words (32%).
Example:
1. absorb /əbˈsɔːr/ 2. adorn /ədɔːn/

r in the combination -rr- is pronounced as (Ø) and occurs only in one word (0.1%).
Example:
1. charred /tʃɑːd/

r in the combination -sr- is pronounced as (Ø) and occurs only in one word (0.1%).
Example:
1. messrs /meːsəz/

r in the combination -tr- is pronounced as (Ø) and occurs only in one word (0.1%).
Example:
1. centrepiece /ˈsɛntrəpiːs/

r in the combination -ur- is pronounced as (Ø) and occurs in eighty-five words (6%).
Example:
1. forecourt /fɔːˈkɔːt/ 2. surely /ˈsɜːli/
Table showing grapheme combination of r and corresponding phoneme in the medially after occurrence

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Graphs showing **medially after** occurrence and corresponding phonemes of grapheme **r**

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**Bar Graph:**
- **/r/**: 2223
- (ø): 1408
- /ɜ:/: 506
- /r/- (ø): 256

**Pie Chart:**
- /ɜ/: 506, 12%
- /r/- (ø): 256, 6%
- (ø): 1408, 32%
- /r/: 2223, 50%
The above graphs show the number of words having r grapheme medially after occurrence and their corresponding phonemes. Phoneme /r/ occurs medially after in two thousand two hundred and twenty-three words (50%) which is the maximum. Phoneme (\(\emptyset\)) (it is silent) occurs in one thousand four hundred and eight words (32%), phoneme /z:/ occurs in five hundred and six words (12%) and phoneme /r/-\(\emptyset\) (it is silent) occurs in two hundred and fifty-six words (6%) which is the least. Totally four thousand three hundred and ninety words have grapheme r in medially after occurrence.
The grapheme \( s \) occurs initially in seventeen combinations. These seventeen combinations are sa-, sc-, se-, si-, sk-, sl-, sm-, sn-, so-, sp-, sq-, st-, su-, sv-, sw-, sy- and they occur in one thousand eight hundred and twenty-seven words. There are no words with initial occurrence of sb-, sd-, sf-, sg-, sj-, sr-, ss-, sx-, sz- combinations.

The grapheme \( s \) in the combinations of sa-, sc-, se-, si-, sk-, sl-, sm-, sn-, so-, sp-, sq-, st-, su-, sv-, sw-, sy-, is pronounced as /s/.

\( s \) in the combination sa- is pronounced as /s/ and occurs in one hundred and twenty-seven words (7.7%).

Example:
1. sabbath /ˈsæbəθ/ 2. sabbatical /ˈsæbətəkl/  

\( s \) in the combination sc- is pronounced as /s/ and occurs in one hundred and thirty-one words (7.9%).

Example:
1. scab /ˈskæb/ 2. scald /ˈskɔːld/  

\( s \) in the combination se- is pronounced as /s/ and occurs in two hundred words (12.1%).

Example:
1. sea /ˈsiː/ 2. seal /ˈsiːl/  

\( s \) in the combination si- is pronounced as /s/ and occurs in one hundred and eight words (6.5%).

Example:
1. sic /sɪk/ 2. sick /sɪk/  

\( s \) in the combination sk- is pronounced as /s/ and occurs in thirty-eight words (2.3%).
Example:
1. skate /skert/ 2. skeleton /skerItn/

s in the combination sl- is pronounced as /s/ and occurs in eighty-six words (5.2%).

Example:
1. slab /slaeb/ 2. slack /slaek/

s in the combination sm- is pronounced as /s/ and occurs in twenty-nine words (1.7%).

Example:
1. smack /smaek/ 2. small /smɔ:l/

s in the combination sn- is pronounced as /s/ and occurs in eighty-three words (3.2%).

Example:
1. snack /snaek/ 2. snag /snæg/

s in the combination so- is pronounced as /s/ and occurs in one hundred and twenty-four words (7.5%).

Example:
1. soak /səuk/ 2. soap /səup/

s in the combination sp- is pronounced as /s/ and occurs in one hundred and fifty-seven words (9.5%).

Example:
1. space /speɪs/ 2. spade /speɪd/

s in the combination sq- is pronounced as /s/ and occurs in twenty-four words (1.4%).

Example:
1. squad /skwɔd/ 2. squall /skwɔ:l/
\[s\] in the combination \textit{st-} is pronounced as /\textit{s}/ and occurs in two hundred and eighty-four words (17.2%).

Example:
1. \textit{stab} /\textit{staeb}/
2. \textit{stack} /\textit{stæk}/

\[s\] in the combination \textit{su-} is pronounced as /\textit{s}/ and occurs in one hundred and ninety-nine words (12%).

Example:
1. \textit{suave} /\textit{swə:v}/
2. \textit{subdue} /\textit{səbdjuː}/

\[s\] in the combination \textit{sv-} is pronounced as /\textit{s}/ and occurs only in one word (0.1%).

Example:
1. \textit{svelte} /\textit{svelt}/

\[s\] in the combination \textit{sw-} is pronounced as /\textit{s}/ and occurs in fifty-seven words (3.4%).

Example:
1. \textit{swab} /\textit{swəb}/
2. \textit{swam} /\textit{swæm}/

\[s\] in the combination \textit{sy-} is pronounced as /\textit{s}/ and occurs in thirty-five words (2.1%).

Example:
1. \textit{sycamore} /\textit{sɪkæmɔːr}/
2. \textit{syllable} /\textit{sɪləbl}/

The grapheme \[s\] in the combinations of \textit{su-} is pronounced as /\textit{ʃ}/.

\[s\] in the combination \textit{su-} is pronounced as /\textit{ʃ}/ and occurs only in three words (50%).

Example:
1. \textit{sugar} /\textit{jʊgər}/
2. \textit{sure} /\textit{ʃər}/
### Table showing grapheme combination of s and corresponding phoneme in the initial occurrence

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</tr>
<tr>
<td>Total</td>
<td>1654</td>
<td>173</td>
<td>1827</td>
</tr>
</tbody>
</table>
Graphs showing initial occurrence and corresponding phonemes of graphemes

- Phonemes:
  - /s/
  - /ʃ/

Number of Words:
- /s/ 1654
- /ʃ/ 173

<table>
<thead>
<tr>
<th>Phonemes</th>
<th>Number of Words</th>
</tr>
</thead>
<tbody>
<tr>
<td>/s/</td>
<td>1654</td>
</tr>
<tr>
<td>/ʃ/</td>
<td>173</td>
</tr>
</tbody>
</table>

/s/, 1654, 91%
ʃ/, 173, 9%
The above graphs show the number of words having s grapheme initial occurrence and their corresponding phonemes. Phoneme /s/ occurs initial in one thousand six hundred and fifty-four words (91%) which is the maximum. Phoneme /ʃ/ occurs in one hundred and seventy-three words (9%) which is the least. Totally one thousand eight hundred and twenty-seven words have grapheme s in initial occurrence.

### 3.16.2. s = /s/, /z/, /ʃ/, /ʒ/, (Ø) Medially before Occurrence


s in the combination -sa- is pronounced as /s/ and occurs in seventy words (2.7%).

Example:
1. adversary /ædvəsri/ 2. crusade /kruːsəd/

s in the combination -sb- is pronounced as /s/ and occurs in five words (0.2%).

Example:
1. asbestos /æsbɛstos/ 2. disband /dɪsbænd/

s in the combination -sc- is pronounced as /s/ and occurs in one hundred and fifty-four words (6%).
Example:
1. ascribe  /æskraɪb/  
2. cascade  /keɪskərd/  

s in the combination -sd- is pronounced as /s/ and occurs only in three words (0.1%).

Example:
1. disdain  /dɪsdɛɪn/  
2. misdirect  /mɪsdɪrekt/  

s in the combination -se- is pronounced as /s/ and occurs in two hundred and twenty-eight words (9%).

Example:
1. absence  /æbsəns/  
2. absent  /æbsənt/  

s in the combination -sf- is pronounced as /s/ and occurs in eighteen words (0.7%).

Example:
1. crossfire  /krosfaɪər/  
2. misfit  /mɪsfɪt/  

s in the combination -sg- is pronounced as /s/ and occurs in eleven words (0.4%).

Example:
1. disgrace  /dɪzɡreɪs/  
2. disgust  /dɪzɡʌst/  

s in the combination -sh- is pronounced as /s/ and occurs in seven words (0.3%).

Example:
1. dishonest  /dɪsənɪst/  
2. mishap  /mɪʃæp/  

s in the combination -si- is pronounced as /s/ and occurs in one hundred and ninety-one words (7.5%).

Example:
1. abrasive  /əbrərɪsv/  
2. adhesive  /ədhi:sɪv/
s in the combination -sj- is pronounced as /s/ and occurs only in three words (0.1%).
Example:
1. disjointed /dɪsˈdʒɒntɪd/ 2. misjudge /mɪsdʒʌdʒ/  
s in the combination -sk- is pronounced as /s/ and occurs in thirty-seven words (1.4%).
Example:
1. askew /ˈæskjuː/ 2. ask /ɑːsk/  
s in the combination -sl- is pronounced as /s/ and occurs in thirty words (1.2%).
Example:
1. asleep /əˈslɪp/ 2. dislike /dɪslɑːk/  
s in the combination -sm- is pronounced as /s/ and occurs in twenty-five words (1%).
Example:
1. batsman /ˈbeɪtsmən/ 2. dismay /dɪsmɔɪ/  
s in the combination -sn- is pronounced as /s/ and occurs only in three words (0.1%).
Example:
1. misnomer /ˈmaɪsnəmər/ 2. parsnip /ˈpɑːsnɪp/  
s in the combination -so- is pronounced as /s/ and occurs in ninety words (3.5%).
Example:
1. absolute /ˈæbsəluːt/ 2. aerosol /ˈeərəsəl/  
s in the combination -sp- is pronounced as /s/ and occurs in one hundred and sixty-three words (6.4%).
Example:
1. aerospace /əˈæəspəs/ 2. aspect /ˈæspekt/

s in the combination -sq- is pronounced as /s/ and occurs in eight words (0.3%).
Example:
1. brusque /bruːsk/ 2. disquiet /dɪˈskwɪət/ 

s in the combination -sr- is pronounced as /s/ and occurs in nine words (0.3%).
Example:
1. disregard /dɪˈsɑːrʒ/ 2. disrupt /dɪˈrʌpt/

s in the combination -st- is pronounced as /s/ and occurs in nine hundred and twenty-nine words (36.5%).
Example:
1. abstract /æbˈstrækt/ 2. accost /əˈkɒst/ 

s in the combination -su- is pronounced as /s/ and occurs in sixty-two words (2.4%).
Example:
1. catsup /kætsəp/ 2. census /ˈsɛnsəs/ 

s in the combination -sw- is pronounced as /s/ and occurs in six words (0.2%).
Example:
1. answer /ˈɑːnsər/ 2. sportswear /ˈspɔːtsweər/ 

s in the combination -sy- is pronounced as /s/ and occurs in twenty-one words (0.8%).
Example:
1. asylum /əˈsɜːləm/ 2. autopsy /ˈɔːtəpsi/

s in the combination -sa- is pronounced as /z/ and occurs in thirty-four words (6.5%).
Example:
1. advisable /ədvaɪzəbl/ 2. arousal /ərəuzl/

s in the combination -sb- is pronounced as /z/ and occurs only in four words (0.8%).
Example:
1. dogs body /dɒgzboði/ 2. has-been /hæzbiːn/

s in the combination -sc- is pronounced as /z/ and occurs only in two words (0.4%).
Example:
1. news-cast /njuːzkɑːst/ 2. news-caster /njuːzkɑːstər/

s in the combination -sd- is pronounced as /z/ and occurs only in four words (0.8%).
Example:
1. eavesdrop /iːvzdrɒp/ 2. wisdom /wɪzdam/

s in the combination -se- is pronounced as /z/ and occurs in two hundred and one words (38.7%).
Example:
1. accuse /əkjuːz/ 2. advise /ədvaɪz/

s in the combination -sg- is pronounced as /z/ and occurs only in two words (0.4%).
Example:
1. newsgroup /njuːzgruːp/ 2. transgress /trænzgres/
s in the combination -si- is pronounced as /z/ and occurs in one hundred
and three words (19.8%).

Example:

1. accusing /əˈkjuːzɪŋ/ 2. amusing /əˈmjʊzɪŋ/

s in the combination -sl- is pronounced as /z/ and occurs in twelve words
(2.3%).

Example:

1. clothesline /ˈklaʊzəlɪn/ 2. gosling /ɡəˈzəlɪŋ/

s in the combination -sm- is pronounced as /z/ and occurs in eighty-four
words (16.2%).

Example:

1. abysmal /əˈbɪzməl/ 2. dismal /ˈdɪzməl/

s in the combination -sn- is pronounced as /z/ and occurs only in three
words (0.6%).

Example:

1. doesn’t /dəzənt/ 2. hasn’t /hæzənt/

s in the combination -so- is pronounced as /z/ and occurs in thirty-seven
words (7.1%).

Example:

1. absolve /əbˈzɔlv/ 2. absorb /əbˈzɔb/.

s in the combination -sp- is pronounced as /z/ and occurs only in three
words (0.6%).

Example:

1. newsprint /ˈnjuːzprɪnt/ 2. raspberry /ˈræzbəri/.

s in the combination -sr- is pronounced as /z/ and occurs only in one
word (0.2%).
Example:
1. newsreader /nju:zri:da/  
   s in the combination -su- is pronounced as /z/ and occurs in eleven words (2.1%).

Example:
1. presume /prizju:m/  2. result /rɪzlət/  
   s in the combination -sv- is pronounced as /z/ and occurs only in one word (0.2%).

Example:
1. transvestite /trænzvestət/  
   s in the combination -sw- is pronounced as /z/ and occurs only in one word (0.2%).

Example:
1. newsworthy /nju:zw3ːdi/  
   s in the combination -sy- is pronounced as /z/ and occurs in fifteen words (2.9%).

Example:
1. busy /bɪzi/  2. choosy /tʃuːzi/  

   The grapheme s in the combinations of -sc-, -si-, -so-, -su- is pronounced as /ʃ/.
   s in the combination -sc- is pronounced as /ʃ/ and occurs in eleven words (2.9%).

Example:
1. conscience /konʃəns/  2. fascist /faʃɪst/
The grapheme s in the combinations of -sc-, -sl- is pronounced as (Ø) (it is silent).

s in the combination -sc- is pronounced as (Ø) and occurs only in one word (50%).
Example:
1. kitsch /kitʃ/

s in the combination -sl- is pronounced as (Ø) and occurs only in one word (50%).
Example:
1. aisle /aɪl/
Table showing grapheme combination of s and corresponding phoneme in the *medially before* occurrence

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<th>/s/</th>
<th>/z/</th>
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Graphs showing **medially before** occurrence and corresponding phonemes of graphemes.
The above graphs show the number of words having s grapheme medially before occurrence and their corresponding phonemes. Phoneme /s/ occurs medially before in two thousand five hundred and fifty-four words (72%) which are the maximum. Phoneme /z/ occurs in five hundred and nineteen words (15%), phoneme /f/ occurs in three hundred and eighty-four words (11%), phoneme /3/ occurs in sixty-eight words (2%) and phoneme (Ø) (it is silent) occurs only in two words (0.2%) which is the least. Totally three thousand five hundred and seventeen words have grapheme s in medially before occurrence.

3.16.3. s = /s/, /z/, /f/, /3/, (Ø) Medially after Occurrence

The grapheme s occurs medially after in twenty-one combinations. These twenty-one combinations are -as-, -bs-, -cs-, -ds-, -es-, -fs-, -gs-, -hs-, -is-, -ks-, -ls-, -ms-, -ns-, -os-, -ps-, -rs-, -ss-, -ts-, -us-, -ws-, -ys- and they occur in three thousand three hundred and sixteen words. There are no words with medially after occurrence of -js-, -qs-, -vs-, -xs-, -zs- combinations.


s in the combination -as- is pronounced as /s/ and occurs in one hundred and eighty-one words (7.6%).

Example:
1. cascade /kæskərd/ 2. abrasive /ɑbriˈsɪv/

s in the combination -bs- is pronounced as /s/ and occurs in thirty-seven words (1.3%).
Example:
1. abscess /æbses/ 2. absence /æbsəns/

s in the combination -cs- is pronounced as /s/ and occurs only in one word (0.04%).
Example:
1. ecstatic /ɪkstætɪk/

s in the combination -ds- is pronounced as /s/ and occurs in twenty-seven words (1%).
Example:
1. windscreen /wɪndskrɪ:n/ 2. godsend /ɡəʊsdɛnd/

s in the combination -es- is pronounced as /s/ and occurs in two hundred and ninety-seven words (12.5%).
Example:
1. asbestos /æsəbɛstəs/ 2. acquiesce /ækwɪəs/ 

s in the combination -fs- is pronounced as /s/ and occurs in eight words (0.3%).
Example:
1. self-sacrifice /sɛlfseklɛfɪs/ 2. offset /ɒfset/

s in the combination -gs- is pronounced as /s/ and occurs in eleven words (0.5%).
Example:
1. jigsaw /dʒɪɡsɔ:/ 2. angst /æŋst/ 

s in the combination -hs- is pronounced as /s/ and occurs only in three words (0.1%).
Example:
1. notwithstanding /nɔtəˈstændɪŋ/ 2. withstand /wɪəˈstænd/
s in the combination -is- is pronounced as /s/ and occurs in five hundred and eleven words (21.5%).
Example:
1. disdain /dstrdeɪn/ 2. disgrace /dɪsrgrəs/

s in the combination -ks- is pronounced as /s/ and occurs in ten words (0.4%).
Example:
1. bookseller /bʊksəlɛr/ 2. thanksgiving /θæŋksgvɪŋ/

s in the combination -ls- is pronounced as /s/ and occurs in twenty-six words (1%).
Example:
1. pulsate /pʌlsət/ 2. salsa /sælsa/

s in the combination -ms- is pronounced as /s/ and occurs in six words (0.2%).
Example:
1. himself /hɪmself/ 2. swimsuit /swɪmsuːt/

s in the combination -ns- is pronounced as /s/ and occurs in three hundred and sixteen words (13.3%).
Example:
1. answer /aːnsər/ 2. census /ˈsɛnsəs/

s in the combination -os- is pronounced as /s/ and occurs in one hundred and nine words (4.6%).
Example:
1. aerospace /ˈeəroʊspərəs/ 2. accost /ˈækəst/

s in the combination -ps- is pronounced as /s/ and occurs in twenty-seven words (1.1%).
Example:
1. autopsy /ɔːtopsɪ/ 2. upscale /ʌpskərl/
   s in the combination -rs- is pronounced as /s/ and occurs in one hundred and sixty-eight words (7.1%).
Example:
1. adversary /ədˈvɜːsri/ 2. parsnip /paːsnɪp/
   s in the combination -ts- is pronounced as /s/ and occurs in twenty-nine words (1.2%).
Example:
1. batsman /ˈbeɪtsmən/ 2. catsup /kætsəp/
   s in the combination -us- is pronounced as /s/ and occurs in one hundred and fifty-nine words (6.7%).
Example:
1. crusade /ˈkrʊ:seid/ 2. brusque /bruːsk/
   s in the combination -ws- is pronounced as /s/ and occurs only in four words (0.2%).
Example:
1. windowsill /ˈwɪndəʊsɪl/ 2. snowstorm /ˈsnɔːstɔːrm/
   s in the combination -ys- is pronounced as /s/ and occurs in twenty-eight words (1.2%).
Example:
1. odyssey /əˈdɪsі/ 2. wayside /ˈweɪsайд/

The grapheme s in the combinations of -as-, -bs-, -ds-, -es-, -gs-, -is-, -ms-, -ns-, -os-, -us-, -ws-, -ys- is pronounced as /z/.

s in the combination -as- is pronounced as /z/ and occurs in fifty-four words (10.3%).
Example:
1. has-been /hæzbiːn/ 2. raspberry /raːzbəri/

s in the combination -bs- is pronounced as /z/ and occurs in five words (0.9%).

Example:
1. absolve /əb'zɔlv/ 2. absorb /əbˈzɔːb/

s in the combination -ds- is pronounced as /z/ and occurs only in one word (0.2%).

Example:
1. ombudsman /ɔmbudzˈmæn/

s in the combination -es- is pronounced as /z/ and occurs in ninety-eight words (18.7%).

Example:
1. eavesdrop /iːvzdrɒp/ 2. clothesline /klaʊðzˈlaɪn/

s in the combination -gs- is pronounced as /z/ and occurs only in one word (0.2%).

Example:
1. dogs body /dɔgzˈbɔdi/

s in the combination -is- is pronounced as /z/ and occurs in one hundred and sixty-nine words (32.2%).

Example:
1. advisable /ædvaɪzəbəl/ 2. wisdom /wɪzˈdəm/

s in the combination -ms- is pronounced as /z/ and occurs in five words (0.9%).

Example:
1. whimsical /wɪmzɪkəl/ 2. crimson /krɪmzn/
s in the combination -ns- is pronounced as /z/ and occurs in twenty words (3.8%).
Example:
1. transgress /traenzgres/ 2. transveste /traenzvestart/

s in the combination -os- is pronounced as /z/ and occurs in seventy-six words (14.5%).
Example:
1. choosy /tju:zi/ 2. gosling /gozlirj/

s in the combination -us- is pronounced as /z/ and occurs in sixty-three words (12%).
Example:
1. arousal /arauzl/ 2. accuse /akju:z/

s in the combination -ws- is pronounced as /z/ and occurs in twelve words (2.3%).
Example:

s in the combination -ys- is pronounced as /z/ and occurs in sixteen words (3%).
Example:
1. abysmal /abizmal/ 2. breathalyser /breQalaizaV

The grapheme s in the combinations of -as-, -ls-, -ns- is pronounced as /ʃ/.
s in the combination -as- is pronounced as /ʃ/ and occurs in fifty-six words (15.5%).
Example:
1. fascist /fejɪst/ 2. gasoline /gæˈliːn/  
s in the combination -ls- is pronounced as /ʃ/ and occurs in eight words (2.2%).
Example:
1. compulsion /kəmpləʃn/ 2. convulsion /kənvəlʃn/  
s in the combination -ns- is pronounced as /ʃ/ and occurs in thirty-five words (9.7%).
Example:
1. conscience /kənsəns/ 2. insure /ɪnsər/  
The grapheme s in the combinations of -as-, -es-, -is-, -os-, -rs-, -us- is pronounced as /ʒ/.
s in the combination -as- is pronounced as /ʒ/ and occurs in fourteen words (25.9%).
Example:
1. casual /kæʒjuəl/ 2. caucasian /kəˈkeɪʒən/  
s in the combination -es- is pronounced as /ʒ/ and occurs only in two words (3.7%).
Example:
1. amnesia /əˈməniə/ 2. cohesion /kəˈhɪʒən/  
s in the combination -is- is pronounced as /ʒ/ and occurs in fifteen words (27.8%).
Example:
1. collision /kəˈlɪʒn/ 2. derision /dɪˈrɪʒn/
s in the combination -os- is pronounced as /3/ and occurs only in four words (7.4%).
Example:
1. closure /kləʊʒə/ 2. explosion /ɪksploʊʒən/

s in the combination -rs- is pronounced as /3/ and occurs only in three words (5.5%).
Example:
1. aversion /əvəʒən/ 2. conversion /kənvəʒən/

s in the combination -us- is pronounced as /3/ and occurs in sixteen words (29.6%).
Example:
1. unusual /ʌnjuːʒəl/ 2. allusion /əljuːʒən/

The grapheme s in the combinations of -is-, -ts- is pronounced as (Ø) (it is silent).

s in the combination -is- is pronounced as (Ø) and occurs only in one word (50%).
Example:
1. aisle /aɪl/

s in the combination -ts- is pronounced as (Ø) and occurs only in one word (50%).
Example:
1. kitsch /kɪtʃ/
Table showing grapheme combination of s and corresponding phoneme in the medially after occurrence

<table>
<thead>
<tr>
<th></th>
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<th>/z/</th>
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Graphs showing medially after occurrence and corresponding phonemes of graphemes s

Number of Words

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<th>/ʃ/</th>
<th>/ʒ/</th>
<th>(ο)</th>
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<td>524</td>
<td>362</td>
<td>54</td>
<td>2</td>
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<td>/z/</td>
<td>/ʃ/</td>
<td>/ʒ/</td>
<td>(ο)</td>
</tr>
<tr>
<td>Percent</td>
<td>71%</td>
<td>16%</td>
<td>11%</td>
<td>2%</td>
<td>0.2%</td>
</tr>
</tbody>
</table>

/s/, 2374, 71%
/zl, 524, 16%
/ʃl, 362, 11%
/ʒl, 54, 2%
(ο), 2, 0.2%
The above graphs show the number of words having s grapheme medially after occurrence and their corresponding phonemes. Phoneme /s/ occurs medially after in two thousand three hundred and seventy-four words (71%) which is the maximum. Phoneme /z/ occurs in five hundred and twenty-four words (16%), phoneme /ʃ/ occurs in three hundred and sixty-two words (11%), phoneme /ʒ/ occurs in fifty-four words (2%) and phoneme (θ) (it is silent) occurs only in two words (0.2%) which is the least. Totally three thousand three hundred and sixteen words have grapheme s in medially after occurrence.

3.16.4. \( s = /s/, /z/, /ʃ/, (θ) \) Final Occurrence

The grapheme s occurs finally in twenty-one combinations. These twenty-one combinations are -as#, -bs#, -cs#, -ds#, -es#, -fs#, -gs#, -hs#, -is#, -ks#, -ls#, -ms#, -ns#, -os#, -ps#, -rs#, -ss#, -ts#, -us#, -ws#, -ys# and they occur in eight hundred and sixty-four words. There are no words with final occurrence of -js#, -qs#, -vs#, -xs#, -zs# combinations.

The grapheme s in the combinations of -as#, -cs#, -es#, -fs#, -hs#, -is#, -ks#, -os#, -ps#, -ss#, -ts#, -us# is pronounced as /s/.

s in the combination -as# is pronounced as /s/ and occurs in seven words (1.2%).

Example:
1. alas /ælæs/
2. atlas /ætlæs/

s in the combination -cs# is pronounced as /s/ and occurs in thirty words (5.3%).
Example:
1. acoustics /əˈkʌstɪks/ 2. aerobics /əˈreəbɪks/
s in the combination -es# is pronounced as /s/ and occurs in nine words (1.6%).
Example:
1. bagpipes /bæɡpaɪps/ 2. drapes /dreɪps/
s in the combination -fs# is pronounced as /s/ and occurs only in two words (0.3%).
Example:
1. briefs /briːfs/ 2. handcuffs /ˈhændkʌfz/
s in the combination -hs# is pronounced as /s/ and occurs only in two words (0.3%).
Example:
1. depths /dɛpθz/ 2. math’s /mæθz/
s in the combination -is# is pronounced as /s/ and occurs in thirty-eight words (6.7%).
Example:
1. antithesis /æntrɪˈθɛsɪs/ 2. analysis /ænəˈləsɪs/
s in the combination -ks# is pronounced as /s/ and occurs in ten words (1.8%).
Example:
1. books /bʊks/ 2. slacks /slæks/
s in the combination -os# is pronounced as /s/ and occurs in six words (1%).
Example:
1. asbestos /əˈesbɛtɒs/ 2. cosmos /ˈkɒzməs/
s in the combination -ps# is pronounced as /s/ and occurs in nine words (1.6%).
Example:
1. biceps /baiseps/ 2. creeps /kriːps/

s in the combination -ts# is pronounced as /s/ and occurs in thirty-seven words (6.5%).
Example:
1. accounts /əkaunts/ 2. arts /aːts/

s in the combination -us# is pronounced as /s/ and occurs in two hundred and twenty-four words (39.5%).
Example:
1. abacus /əbəkəs/ 2. amorous /əmˈroʊs/

The grapheme s in the combinations of -as#, -bs#, -ds#, -es#, -gs#, -is#, -ls#, -ms#, -ns#, -os#, -rs#, -ws#, -ys# is pronounced as /z/.

s in the combination -as# is pronounced as /z/ and occurs in eight words (2.7%).
Example:
1. as /æz/ 2. has /hæz/

s in the combination -bs# is pronounced as /z/ and occurs only in one word (0.3%).
Example:
1. breadcrumbs /bredkraɪmz/

s in the combination -ds# is pronounced as /z/ and occurs in thirty-three words (11.3%).
Example:
1. aids /eɪdz/ 2. cords /kɔːdz/
s in the combination -es# is pronounced as /z/ and occurs in one hundred
and twelve words (38.2%).
Example:
1. ages /erdaɪz/ 2. ashes /æʃɪz/

s in the combination -gs# is pronounced as /z/ and occurs in thirty words
(10.2%).
Example:
1. bangs /baendʒz/ 2. clogs /klɒgz/

s in the combination -is# is pronounced as /z/ and occurs only in one
word (0.3%).
Example:
1. his /hɪz/

s in the combination -ls# is pronounced as /z/ and occurs in seventeen
words (5.8%).
Example:
1. bowls /bəʊlz/ 2. coveralls /kʌvərəlz/

s in the combination -ms# is pronounced as /z/ and occurs in five words
(1.7%).
Example:
1. arms /aːmz/ 2. customs /kʌstəmsz/

s in the combination -ns# is pronounced as /z/ and occurs in thirty words
(10.2%).
Example:
1. commons /kəmənz/ 2. directions /dɪrekʃənz/

s in the combination -os# is pronounced as /z/ and occurs only in one
word (0.3%).
Example:
1. who’s /huːz/  

s in the combination -rs# is pronounced as /z/ and occurs in forty-six words (15.7%).

Example:
1. affairs /əfɛərz/  2. cheers /tʃɪəz/  

s in the combination -ws# is pronounced as /z/ and occurs only in four words (1.4%).

Example:
1. gallows /ɡæləʊz/  2. news /njuːz/  

s in the combination -ys# is pronounced as /z/ and occurs in five words (1.7%).

Example:
1. always /ɔːlweɪz/  2. edgeways /ɛdʒweɪz/  

The grapheme s in the combinations of -is#, -ps# is pronounced as (Ø) (it is silent).

s in the combination -is# is pronounced as (Ø) and occurs only in three words (75%).

Example:
1. debris /debri:/  2. precis /pɾɛsiː/  

s in the combination -ps# is pronounced as (Ø) and occurs only in one word (25%).

Example:
1. corps /kɔːp/
Table showing grapheme combination of s and corresponding phoneme in the final occurrence

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<th>s</th>
<th>/s/</th>
<th>/z/ (Ø)</th>
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Graphs showing final occurrence and corresponding phonemes of graphemes.

- Phonemes: /s/, /z/, (\emptyset)
- Number of Words:
  - /s/: 567
  - /z/: 293
  - (\emptyset): 4
- Frequencies:
  - /s/: 66%
  - /z/: 34%
  - (\emptyset): 0.2%
The above graphs show the number of words having \textit{s} grapheme \textit{final} occurrence and their corresponding phonemes. Phoneme /s/ occurs \textit{finally} in five hundred and sixty-seven words (66\%) which is the maximum. Phoneme /z/ occurs in two hundred and ninety-three words (34\%), phoneme (\textit{∅}) (it is silent) occurs only in four words (0.2\%) which is the least. Totally eight hundred and sixty-four words have grapheme \textit{s} in \textit{final} occurrence.
3.17.1. \( t = /t/ \) Initial Occurrence

The grapheme \( t \) occurs initially in eight combinations. These eight combinations are \( ta-, te-, ti-, to-, tr-, tu-, tw-, ty- \) and they occur in six hundred and fifty-seven words. There are no words with initial occurrence of \( tb-, tc-, td-, tf-, tg-, th-, tj-, tk-, tl-, tm-, tn-, tp-, tq-, ts-, tt-, tv-, tx-, tz- \) combinations.

The grapheme \( t \) in the combinations of \( ta-, te-, ti-, to-, tr-, tu-, tw-, ty- \) is pronounced as \( /t/ \).

\( t \) in the combination \( ta- \) is pronounced as \( /t/ \) and occurs in one hundred and three words (15.7%).
Example:
1. tab /\text{\textipa{tæb}/} 
2. table /\text{\textipa{teibl}/} 

\( t \) in the combination \( te- \) is pronounced as \( /t/ \) and occurs in one hundred and twenty-six words (19.2%).
Example:
1. tea /\text{\textipa{ti:/}} 
2. teach /\text{\textipa{tiːt/}} 

\( t \) in the combination \( ti- \) is pronounced as \( /t/ \) and occurs in fifty-six words (8.5%).
Example:
1. tick /\text{\textipa{tɪk/}} 
2. ticket /\text{\textipa{tɪkɪt/}} 

\( t \) in the combination \( to- \) is pronounced as \( /t/ \) and occurs in one hundred and eleven words (16.9%).
Example:
1. to /\text{\textipa{tu:/}} 
2. toad /\text{\textipa{təʊd/}} 

\( t \) in the combination \( tr- \) is pronounced as \( /t/ \) and occurs in one hundred and seventy-seven words (26.9%).
Example:
1. trace /trɛs/ 2. track /træk/

\( t \) in the combination \( tu- \) is pronounced as \( /t/ \) and occurs in forty-seven words (7.1%).
Example:
1. tub /tʌb/ 2. tuba /tjuːba/

\( t \) in the combination \( tw- \) is pronounced as \( /t/ \) and occurs in twenty-four words (3.6%).
Example:
1. twang /twæŋ/ 2. tweak /twiːk/

\( t \) in the combination \( ty- \) is pronounced as \( /t/ \) and occurs in thirteen words (2%).
Example:
1. tycoon /taɪˈkœn/ 2. tying /ˈtaɪŋ/
Table showing grapheme combination of t and corresponding phoneme in the initial occurrence

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3.17.2. t = /t/, /ʧ/, /ʃ/, (Ø) Medially before Occurrence


\( t \) in the combination -ta- is pronounced as /tl/ and occurs in four hundred and seventy-four words (15.4%).
Example:
1. acceptable /ækˈseptəbl/ 2. accountable /əˈkaʊntəbl/

\( t \) in the combination -tb- is pronounced as /t/ and occurs in twenty words (0.6%).
Example:
1. basketball /bəˈskɪtbɔːl/ 2. cutback /ˈkʌtbæk/

\( t \) in the combination -tc- is pronounced as /t/ and occurs in forty-eight words (1.6%).
Example:
1. outcast /ˈaʊtkaːst/ 2. postcard /ˈpəʊstkaːd/

\( t \) in the combination -td- is pronounced as /t/ and occurs in eight words (0.3%).
Example:
1. outdated /ˈaʊtdeɪtɪd/ 2. countdown /ˈkaʊntdaʊn/

\( t \) in the combination -te- is pronounced as /t/ and occurs in one thousand two hundred and forty-one words (40.4%).
t in the combination -tn- is pronounced as /t/ and occurs in ten words (0.3%).
Example:
1. directness /direktnəs/ 2. fitness /ftnəs/


t in the combination -to- is pronounced as /t/ and occurs in three hundred and twenty-eight words (10.7%).
Example:
1. actor /æktoə/ 2. accustom /akəstəm/


t in the combination -tp- is pronounced as /t/ and occurs in twelve words (0.4%).
Example:
1. autpace /autpeis/ 2. outpost /autpəust/


t in the combination -tr- is pronounced as /t/ and occurs in four hundred and twenty-one words (13.7%).
Example:
1. abstract /æbstrækt/ 2. arbitrary /ə:britrəri/


t in the combination -ts- is pronounced as /t/ and occurs in thirty-three words (1.1%).
Example:
1. outscore /autskɔ:t/ 2. itself /ɪtself/


t in the combination -tu- is pronounced as /t/ and occurs in one hundred and eleven words (3.6%).
Example:
1. bathtub /baːtəb/ 2. astute /æstju:t/
Example:
1. eastward /ˈeastwərd/ 2. between /ˈbetwɪn/

t in the combination -ty- is pronounced as /t/ and occurs in eight words (0.3%).

Example:
1. hairstyle /ˈheɪstəl/ 2. style /ˈstайл/

The grapheme t in the combinations of -ti- is pronounced as /ʃ/.

t in the combination -ti- is pronounced as /ʃ/ and occurs in four hundred and ninety-three words (100%).

Example:
1. attention /ətənˈʃən/ 2. adulation /ədʒʊˈleɪʃən/

The grapheme t in the combinations of -tu- is pronounced as /tʃ/.

t in the combination -tu- is pronounced as /tʃ/ and occurs in one hundred and fifteen words (100%).

Example:
1. actual /ˈæktʃʊəl/ 2. aperture /ˈæpətʃər/  

The grapheme t in the combinations of -th-, -tl- is pronounced as (ə) (it is silent).

t in the combination -th- is pronounced as (ə) and occurs only in one word (50%).

Example:
1. asthma /ˈæstma/  

t in the combination -tl- is pronounced as (ə) and occurs only in one word (50%).

Example:
1. hustler /ˈhʌstlər/
Graphs showing **medially before** occurrence and corresponding phonemes of grapheme t

---

### Bar Graph

<table>
<thead>
<tr>
<th>Phonemes</th>
<th>Number of Words</th>
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<tbody>
<tr>
<td>/t/</td>
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</tr>
<tr>
<td>/ʃ/</td>
<td>493</td>
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<tr>
<td>/tʃ/</td>
<td>115</td>
</tr>
<tr>
<td>(ə)</td>
<td>2</td>
</tr>
</tbody>
</table>

### Pie Chart

- /t/, 3072, 83.8%
- /ʃ/, 493, 13%
- /tʃ/, 115, 3%
- (ə), 2, 0.2%
The above graphs show the number of words having t grapheme medially before occurrence and their corresponding phonemes. Phoneme /t/ occurs medially before in three thousand and seventy-two words (83.8%) which are the maximum. Phoneme /f/ occurs in four hundred and ninety-three words (13%), phoneme /tf/ occurs in one hundred and fifteen words (3%) and phoneme (Ø) (it is silent) occurs only in two words (0.2%). Totally three thousand six hundred and eighty-two words have grapheme t in medially before occurrence.

3.17.3. t = /t/, /f/, /tf/, (Ø) Medially after Occurrence


 t in the combination -at- is pronounced as /t/ and occurs in seven hundred and twelve words (18.9%).
Example:
1. abate /æbet/ 2. outdated /autdətəd/ 

 t in the combination -bt- is pronounced as /t/ and occurs in eleven words (0.3%).
Example:
1. obtain /əbˈtein/ 2. indebted /ɪndəˈtɪd/
t in the combination -ct- is pronounced as /t/ and occurs in one hundred and eighty-eight words (5%).

Example:
1. directness  /drektnəs/  
2. actor  /æktə/  

- t in the combination -dt- is pronounced as /t/ and occurs in four words (0.1%).

Example:
1. used to  /ju:sttu:/  
2. bedtime  /bedtaɪm/  

- t in the combination -et- is pronounced as /t/ and occurs in two hundred and forty-nine words (6.6%).

Example:
1. basketball  /baːskɪtbɔːl/  
2. between  /ˈbetwɛn/  

- t in the combination -ft- is pronounced as /t/ and occurs in thirty-five words (0.9%).

Example:
1. left-hand  /lɛftˈhænd/  
2. chieftain  /ˈtʃiːftən/  

- t in the combination -gt- is pronounced as /t/ and occurs only in two words (0.1%).

Example:
1. pigtail  /ˈpɪgtæl/  
2. long-term  /ˈlɒŋtɜːm/  

- t in the combination -ht- is pronounced as /t/ and occurs in eighty-eight words (2.3%).

Example:
1. bathtub  /ˈbaːtəb/  
2. lighten  /ˈlaɪtn/  

- t in the combination -it- is pronounced as /t/ and occurs in three hundred and thirty-one words (8.8%).
Example:

1. pitfall /pitfoːl/ 2. fitness /fɪtnəs/

   t in the combination -kt- is pronounced as /t/ and occurs only in two words (0.1%).

Example:

1. cocktail /koktəl/ 2. plankton /plæŋktən/

   t in the combination -It- is pronounced as /t/ and occurs in eighty words (2.1%).

Example:

1. altogether /ɔːltəˈgeðər/ 2. voltage /ˈvɔltidʒ/

   t in the combination -nt- is pronounced as /t/ and occurs in five hundred and thirty-five words (14.2%).

Example:

1. absentee /əbˈsentI:/ 2. countdown /ˈkaʊntdaun/

   t in the combination -ot- is pronounced as /t/ and occurs in one hundred and forty-two words (3.8%).

Example:

1. prototype /prəʊtəˈtaɪp/ 2. notable /ˈnɔtəbl/

   t in the combination -pt- is pronounced as /t/ and occurs in sixty-nine words (1.8%).

Example:

1. acceptable /əkˈseptəbl/ 2. adaptable /ədəˈplebl/

   t in the combination -rt- is pronounced as /t/ and occurs in two hundred and forty words (6.4%).

Example:

1. comfortable /kəmˈfəʊbl/ 2. curtail /kɜːtəl/
Example:
1. adulation /ædʒuˈleɪʃn/ 2. sanitation /sənˈteɪʃn/
   t in the combination -ct- is pronounced as /ʃ/ and occurs in eighty-seven words (18.3%).
Example:
1. addiction /ædɪkʃn/ 2. affection /əfekʃn/
   t in the combination -et- is pronounced as /ʃ/ and occurs only in one word (0.4%).
Example:
1. completion /kəmplɪˈʃn/
   t in the combination -it- is pronounced as /ʃ/ and occurs in forty-eight words (10.1%).
Example:
1. nutrition /ˈnjuːtrʃn/ 2. nutritious /ˈnjuːtrɪʃn/ 
   t in the combination -nt- is pronounced as /ʃ/ and occurs in thirty-four words (7.2%).
Example:
1. attention /əˈtenʃn/ 2. potential /pəˈt恩ʃn/ 
   t in the combination -pt- is pronounced as /ʃ/ and occurs in twenty-seven words (5.7%).
Example:
1. contraption /kəntrəˈpʃn/ 2. interruption /ɪntrəˈpʃn/ 
   t in the combination -rt- is pronounced as /ʃ/ and occurs in thirteen words (2.7%).
Example:
1. apportion /əˈpɔːʃn/ 2. assertion /əˈsɛrʃn/
t in the combination -ut- is pronounced as /ʃ/ and occurs in twenty-two words (4.6%).
Example:
1. distribution /distrɪbjuːʃn/ 2. caution /kəʃn/


- t in the combination -at- is pronounced as /tf/ and occurs in thirty-six words (26.5%).
Example:
1. statue /staɪtjuː/ 2. stature /staɪfər/
- t in the combination -ct- is pronounced as /tf/ and occurs in twenty-four words (17.6%).
Example:
1. actual /æktʃuəl/ 2. juncture /dʒʌŋktʃər/
- t in the combination -et- is pronounced as /tf/ and occurs only in four words (2.9%).
Example:
1. sketchy /sketʃi/ 2. stretcher /stretʃər/
- t in the combination -ht- is pronounced as /tf/ and occurs only in two words (1.5%).
Example:
1. righteous /raɪtʃəs/ 2. self-righteous /selfraɪtʃəs/
- t in the combination -it- is pronounced as /tf/ and occurs in twelve words (8.8%).
Example:
1. kitchen /kɪtʃɪn/ 2. pitcher /ˈpɪtʃər/ 
   t in the combination -It- is pronounced as /tf/ and occurs in six words (4.4%).
Example:
1. cultural /ˈkʌltʃərəl/ 2. culture /ˈkʌltʃər/ 
   t in the combination -nt- is pronounced as /tf/ and occurs in six words (4.4%).
Example:
1. eventual /ɪˈventʃuəl/ 2. eventually /ɪˈventʃuəli/ 
   t in the combination -pt- is pronounced as /tf/ and occurs in nine words (6.6%).
Example:
1. capture /ˈkæptʃər/ 2. rapture /ˈræptʃər/ 
   t in the combination -rt- is pronounced as /tf/ and occurs in fifteen words (11%).
Example:
1. fortune /ˈfɔːrtʃuːn/ 2. fortunate /ˈfɔːrtʃənt/ 
   t in the combination -st- is pronounced as /tf/ and occurs in thirteen words (9.5%).
Example:
1. gesture /dʒestʃər/ 2. pasture /ˈpɑːstʃər/ 
   t in the combination -ut- is pronounced as /tf/ and occurs in six words (4.4%).
Example:
1. butcher /ˈbʌtʃər/ 2. future /ˈfjuːtʃər/
t in the combination -xt- is pronounced as /tf/ and occurs only in three words (2.2%).

Example:
1. fixture /fikstʃə/  2. mixture /mɪkstʃə/  

The grapheme t in the combinations of -et-, -ft-, -lt-, -nt-, -st-, -zt- is pronounced as (θ) (it is silent).

- t in the combination -ft- is pronounced as (θ) and occurs only in one word (2.5%).
Example:
1. soften /sof'n/  

- t in the combination -lt- is pronounced as (θ) and occurs only in one word (2.5%).
Example:
1. waltz /wɔːlz/  

- t in the combination -nt- is pronounced as (θ) and occurs only in one word (2.5%).
Example:
1. avant-garde /əˈvɒntərd/  

- t in the combination -st- is pronounced as (θ) and occurs in twenty-seven words (67.5%).
Example:
1. asthma /æˈsmə/  2. hustler /ˈhʌslə/
Table showing grapheme combination of t and corresponding phoneme in the medially after occurrence

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<th>/f/</th>
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</table>
Graphs showing medi ally after occurrence and corresponding phonemes of grapheme t

Phonemes /t/, /s/, /tʃ/, (ø)

/t/, 3767, 85%
/s/, 473, 11%
/tʃ/, 136, 3%
(ø), 30, 1%

Number of Words

Phonemes /t/ /s/ /tʃ/ (ø)
The above graphs show the number of words having t grapheme medially after occurrence and their corresponding phonemes. Phoneme /t/ occurs medially after in three thousand seven hundred and sixty-seven words (85%) which is the maximum. Phoneme /ʃ/ occurs in four hundred and seventy-three words (11%), phoneme /ʧ/ occurs in one hundred and thirty-six words (3%) and phoneme (ɔ) (it is silent) occurs in thirty words (1%) which is the least. Totally four thousand four hundred and six words have grapheme t in medially after occurrence.
The above graphs show the number of words having \textit{t} grapheme \textit{medially after} occurrence and their corresponding phonemes. Phoneme /t/ occurs \textit{medially after} in three thousand seven hundred and sixty-seven words (85\%) which is the maximum. Phoneme /ʃ/ occurs in four hundred and seventy-three words (11\%), phoneme /ɹ/ occurs in one hundred and thirty-six words (3\%) and phoneme (Ø) (it is silent) occurs in thirty words (1\%) which is the least. Totally four thousand four hundred and six words have grapheme \textit{t} in \textit{medially after} occurrence.
3.18.1. u – /ʌ/, /ə/, /a/-(), Initial Occurrence

The grapheme u occurs initially in nine combinations. These nine combinations are ub-, ug-, ul-, um-, un-, up-, ur-, us-, ut-, and they occur in three hundred and thirty-two words. There are no words with initial occurrence of ua-, uc-, ud-, ue-, uf-, uh-, ui-, uj-, uk-, uo-, uq-, uu-, uv-, uw-, ux-, uy-, uz- combinations.

The grapheme u in the combinations of ub-, ug-, ul-, um-, un-, up-, us-, ut- is pronounced as /ʌ/.

u in the combination ub- is pronounced as /ʌ/ and occurs only in one word (0.3%).
Example:
1. udder /ʌdər/  

u in the combination ug- is pronounced as /ʌ/ and occurs only in two words (0.6%).
Example:
1. ugh /ʌg/ 2. ugly /ʌgli/  

u in the combination ul- is pronounced as /ʌ/ and occurs in eight words (2.5%).
Example:
1. ulcer /ʌlər/ 2. ulterior /ʌltəriər/  

u in the combination um- is pronounced as /ʌ/ and occurs only in four words (1.2%).
Example:
1. umbrella /ʌmbrelə/ 2. umpire /ʌmpaɪr/
u in the combination un- is pronounced as /ʌ/ and occurs in two hundred
and sixty-three words (81.4%).
Example:
1. unable /ʌnˈeɪbl/  2. unabridged /ʌnəˈbrɪdʒd/ 

u in the combination up- is pronounced as /ʌ/ and occurs in forty words
(12.4%).
Example:
1. up /ʌp/  2. upbeat /ˈʌpbiːt/ 

u in the combination us- is pronounced as /ʌ/ and occurs only in one
word (0.3%).
Example:
1. usher /ˈʌʃər/

u in the combination ut- is pronounced as /ʌ/ and occurs only in four
words (1.2%).
Example:
1. utmost /ˈʌtməʊst/  2. utter /ˈʌtər/

The grapheme u in the combinations of un-, up- is pronounced as /ə/.

u in the combination un- is pronounced as /ə/ and occurs only in one
word (50%).
Example:
1. unless /ˈʌnəls/ 

u in the combination up- is pronounced as /ə/ and occurs only in one
word (50%).

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Example:

1. upon /aˈpɒn/

   The grapheme u in the combinations of ur- is pronounced as (ə) (It is silent).

   u in the combination ur- is pronounced as (ə) and occurs in six words (100%).

Example:

1. urban /ɜːˈbʌn/
2. urge /ɜːdʒ/   

   The grapheme u in the combinations of un- is pronounced as /ə/- (ə).

   u in the combination un- is pronounced as /ə/- (ə) and occurs only in four words (100%).

Example:

1. until /ˈɔntɪl/
Table showing grapheme combination of *u* and corresponding phoneme in the *initial* occurrence

<table>
<thead>
<tr>
<th></th>
<th>/ʌ/</th>
<th>/ə/</th>
<th>/ʊ/</th>
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</thead>
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Graphs showing initial occurrence and corresponding phonemes of grapheme u
The above graphs show the number of words having u grapheme initial occurrence and its corresponding phonemes. Phoneme /ʌ/ occurs initially in three hundred and twenty-three words (97%) which is the maximum. Phoneme (ə) (it is silent) occurs in six words (2%), phoneme /ɜ/ occur only in two words (1%), phoneme /ə/-() occurs only in one word (0.1%) which is the least. Totally three hundred and thirty-two words have grapheme u in initial occurrence.

3.18.2. u = /ɪ/, /e/, /ʌ/, /u/, /ʊ/, /uː/, /w/, /ə/-(), (ə)

Medially before Occurrence


The grapheme u in the combinations of -us-, -ut- is pronounced as /ɪ/.

u in the combination -us- is pronounced as /ɪ/ and occurs only in two words (40%).
Example:
1. business /ˈbɪznɪs/ 2. businesslike /ˈbɪznɪslɪk/  

u in the combination -ut- is pronounced as /ɪ/ and occurs only in three words (60%).
Example:
1. minute /ˈmɪnɪt/ 2. minutes /ˈmɪnɪts/

The grapheme u in the combinations of -ur- is pronounced as /e/.
u in the combination -ur- is pronounced as /e/ and occurs only in two words (100%).
Example:
1. burial /beri¹l/ 2. bury /beri/  


u in the combination -ub- is pronounced as /ʌ/ and occurs in fifty-one words (8.9%).
Example:
1. subdue /sʌbdju:/ 2. public /pʌblik/  

u in the combination -uc- is pronounced as /ʌ/ and occurs in forty-five words (7.5%).
Example:
1. duchess /dʌtʃis/ 2. bucket /bʌkit/  

u in the combination -ud- is pronounced as /ʌ/ and occurs in twenty words (3.5%).
Example:
1. budge /bʌdʒ/ 2. fudge /faudʒ/  

u in the combination -ug- is pronounced as /ʌ/ and occurs in twenty-seven words (4.7%).
Example:
1. roughly /raufli/ 2. toughen /tʌfn/  

u in the combination -ul- is pronounced as /ʌ/ and occurs in sixty-one words (10.6%).
Example:
1. culpable /kAlpabl/ 2. impulse /impAls/

u in the combination -um- is pronounced as /A/ and occurs in forty-one words (7.1%).

Example:
1. bum-bag /bAmbæg/ 2. crumble /krAmlbl/

u in the combination -un- is pronounced as /A/ and occurs in one hundred and thirty-seven words (23.9%).

Example:
1. stunt /stAnt/ 2. suntan /sAntæn/

u in the combination -up- is pronounced as /A/ and occurs in sixteen words (2.8%).

Example:
1. abrupt /abrApt/ 2. erupt /irApt/

u in the combination -ur- is pronounced as /A/ and occurs in twenty-eight words (4.9%).

Example:
1. turret /tArit/ 2. nourish /nArist/

u in the combination -us- is pronounced as /A/ and occurs in one hundred five words (18.3%).

Example:
1. accustom /əkAstəm/ 2. adjust /ədʒAst/ 

u in the combination -ut- is pronounced as /A/ and occurs in forty-three words (7.5%).
Example:

1. button /bʌtˈn/ 2. rustic /rʌstɪk/


u in the combination -ua- is pronounced as /u/ and occurs in forty-two words (42.4%).
Example:

1. factual /fæktʃuəl/ 2. sexuality /ˈseksjuələti/

u in the combination -uc- is pronounced as /u/ and occurs in five words (5%).
Example:

1. educate /ɪˈdjuːkeɪt/ 2. educated /ɪˈdjuːkətɪd/

u in the combination -ud- is pronounced as /u/ and occurs only in one word (1%).
Example:

1. ombudsman /ˈɔmbudzmən/

u in the combination -ue- is pronounced as /u/ and occurs in five words (5%).
Example:

1. influence /ɪnˈfljuəns/ 2. influential /ɪnˈfljuənʃəl/

u in the combination -ug- is pronounced as /u/ and occurs only in four words (4%).
Example:

1. conjugal /kɒndʒʊgəl/ 2. sugar /ˈʃʊɡər/
u in the combination -ui- is pronounced as /u/ and occurs only in two words (2%).
Example:
1. inuit /ˈɪnjuːt/ 2. fruition /ˈfruɪʃn/

u in the combination -ul- is pronounced as /u/ and occurs in twenty words (20.2%).
Example:
1. unfulfilled /ʌnˈfʌlfɪld/ 2. fulfillment /ˈfulfɪlmənt/

u in the combination -uo- is pronounced as /u/ and occurs only in four words (4%).
Example:
1. tortuous /ˈtɔːtʃuəs/ 2. virtuous /ˈvɪrtʃuəs/

u in the combination -ur- is pronounced as /u/ and occurs only in two words (2%).
Example:
1. tourist /ˈtʊrɪst/ 2. juror /dʒʊərər/ u in the combination -us- is pronounced as /u/ and occurs in twelve words (12.1%).
Example:
1. bush /bʊʃ/ 2. push /pʊʃ/ u in the combination -ut- is pronounced as /u/ and occurs only in two words (2%).
Example:
1. butcher /ˈbʌtʃər/ 2. butcher’s /ˈbʌtʃərz/
The grapheme u in the combinations of -ub-, -ug-, -ul-, -um-, -un-, -up-, -ur-, -us- is pronounced as /ə/.

u in the combination -ub- is pronounced as /ə/ and occurs in twenty-four words (10.5%).
Example:
1. subtract /səbtrækt/ 2. sublime /səblæm/

u in the combination -ug- is pronounced as /ə/ and occurs only in one word (0.4%).
Example:
1. corrugated /kərəgətəd/

u in the combination -ul- is pronounced as /ə/ and occurs only in three words (1.3%).
Example:
1. petulant /petəlænt/ 2. insulin /ɪnsəlɪn/

u in the combination -um- is pronounced as /ə/ and occurs in twenty-seven words (11.8%).
Example:
1. circumcise /sə:kəmsaɪz/ 2. argument /ə:ɡəmənt/

u in the combination -un- is pronounced as /ə/ and occurs in five words (2.2%).
Example:
1. voluntary /vələntəri/ 2. volunteer /vələntərə/

u in the combination -up- is pronounced as /ə/ and occurs in twelve words (5.3%).
Example:
1. supplant /səplænt/ 2. supplies /səplərz/
u in the combination -ur- is pronounced as /æ/ and occurs in one hundred and fourteen words (50%).

Example:
1. pursue /pəʊʃju:/
2. pursue /pəʊʃjuːt/

u in the combination -us- is pronounced as /æ/ and occurs in forty-two words (18.4%).

Example:
1. carousel /kærəsəl/
2. suspense /səspens/


u in the combination -ua- is pronounced as /u:/ and occurs only in one word (0.6%).

Example:
1. truant /truːənt/

u in the combination -ub- is pronounced as /u:/ and occurs only in four words (2.4%).

Example:
1. jubilee /dʒuːbli:/
2. rubella /rʌbɛlə/

u in the combination -uc- is pronounced as /u:/ and occurs in eleven words (6.7%).

Example:
1. crucify /kruːsfrai/ 2. lucid /luːstɪd/

u in the combination -ud- is pronounced as /u:/ and occurs in eight words (4.9%).

Example:
1. prudent /pruːdənt/ 2. judaism /dʒuːdəɪzəm/
u in the combination -ue- is pronounced as /u:/ and occurs in twenty-three words (14%).

Example:
1. blue /blu:/ 2. fluent /flu:ent/

u in the combination -ug- is pronounced as /u:/ and occurs only in one word (0.6%).

Example:
1. frugal /fru:gl/

u in the combination -ui- is pronounced as /u:/ and occurs in twenty-four words (14.6%).

Example:
1. lawsuit /b:su:t/ 2. juice /d3u:s/

u in the combination -uk- is pronounced as /u:/ and occurs only in two words (1.2%).

Example:
1. jukebox /d3u:kboks/ 2. lukewarm /lu:kwo:m/

u in the combination -ul- is pronounced as /u:/ and occurs only in three words (1.8%).

Example:
1. ruling /ru:lin/ 2. roulette /ru:let/

u in the combination -um- is pronounced as /u:/ and occurs in seven words (4.3%).

Example:
1. plumage /plu:midʒ/ 2. rheumatism /ru:mætizm/
Example:
1. lunar /luːˈnɑːr/ 2. lunatic /luːˈnætɪk/
   u in the combination -up- is pronounced as /u:/ and occurs in nine words (5.5%).
Example:
1. toupee /tuːˈpei/ 2. troupe /truːp/
   u in the combination -ur- is pronounced as /u:/ and occurs only in three words (1.8%).
Example:
1. guru /ɡuːˈruː/ 2. furton /fɜːtɒn/
   u in the combination -us- is pronounced as /u:/ and occurs in twenty-six words (15.8%).
Example:
1. peruse /pərˈzuːz/ 2. recluse /rɪˈklʊs/  
   u in the combination -ut- is pronounced as /u:/ and occurs in twenty-eight words (17.1%).
Example:
1. brutal /ˈbruːtəl/ 2. chute /ʃuːt/ 
   u in the combination -uv- is pronounced as /u:/ and occurs in five words (3%).
Example:
1. maneuver /məˈneʊər/ 2. souvenir /suːˈvɒniər/

The grapheme u in the combinations of -ua-, -ue-, -ui-, -uo- is pronounced as /w/. 
u in the combination -ua- is pronounced as /w/ and occurs in eight words (25%).
Example:
1. assuage /əswəˈdʒ/ 2. language /ˈlændʒwɪdʒ/

u in the combination -ue- is pronounced as /w/ and occurs only in one word (3.3%).
Example:
1. conquest /ˈkɔŋkwɛst/ 2. bequest /ˈbrɛkwɛst/

u in the combination -ui- is pronounced as /w/ and occurs in twenty-one words (70%).
Example:
1. acquire /əkwəˈri/ 2. acquit /ˈakwɪt/

u in the combination -uo- is pronounced as /w/ and occurs only in one word (3.3%).
Example:
1. turquoise /tɜːˈkwɔːrɪz/

The grapheme u in the combinations of -ur- is pronounced as /uə/.

u in the combination -ur- is pronounced as /uə/ and occurs only in two words (14.3%).
Example:
1. plural /ˈpljuəl/ 2. pluralism /ˈpljuəlɪzm/

The grapheme u in the combinations of -ua-, -ue-, -uf-, -ug-, -ui-, -ur-, -us-, -uy- is pronounced as (ə) (it is silent).
u in the combination -ua- is pronounced as (∅) and occurs in eight words (3.3%).
Example:
1. piquant /pi:kant/
2. bodyguard /bɒdɪɡɑːd/

u in the combination -ue- is pronounced as (∅) and occurs in fifty-one words (21%).
Example:
1. piqued /pi:kt/
2. guest /gest/

u in the combination -uf- is pronounced as (∅) and occurs only in one word (0.4%).
Example:
1. camouflage /kæmafləˈʒ/  

u in the combination -ug- is pronounced as (∅) and occurs in eight words (3.3%).
Example:
1. laughter /laːftə/  
2. draught /draːft/  

u in the combination -ui- is pronounced as (∅) and occurs in thirty-three words (13.6%).
Example:
1. quiche /kiːʃ/  
2. rebuild /riːbɪld/  

u in the combination -ur- is pronounced as (∅) and occurs in one hundred and thirty-nine words (57.2%).
Example:
1. curb /kɜːb/  
2. blurb /blɜːb/  

u in the combination -us- is pronounced as (∅) and occurs only in one word (0.4%).
Example:
1. jesuschrist /dʒiːzəskræst/
   u in the combination -uy- is pronounced as (ə) and occurs only in two words (0.8%).

Example:
1. buyer /ˈbæər/ 2. buyout /ˈbəʊət/

The grapheme u in the combinations of -ul-, -un-, -ur- is pronounced as /ə/- (ə) (it is silent).

   u in the combination -ul- is pronounced as /ə/- (ə) and occurs in eight words (17%).

Example:
1. consultation /ˌkɒnsəˈleɪʃən/ 2. skilful /ˈskɪfləl/ 
   u in the combination -un- is pronounced as /ə/- (ə) and occurs in eight words (8.5%).

Example:
1. fortunate /ˈfɔːtʃnət/ 2. fortunately /ˈfɔːtʃnətli/ 
   u in the combination -ur- is pronounced as /ə/- (ə) and occurs in eight words (74.5%).

Example:
1. honourable /ˈɒnərəbl/ 2. measurable /ˈmeʒərəbl/
Table showing grapheme combination of u and corresponding phoneme in the medially before occurrence

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<td>164</td>
<td>228</td>
<td>19</td>
<td>179</td>
<td>243</td>
<td>47</td>
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</table>
Graphs showing *medially before* occurrence and corresponding phonemes of grapheme *u*
The above graphs show the number of words having u grapheme **medially before** occurrence and their corresponding phonemes. Phoneme /a/ occurs **medially before** in five hundred and seventy-four words (37%) which are the maximum. Phoneme (ə) (it is silent) occurs in two hundred and forty-three words (16%), phoneme /a/ occurs in two hundred and twenty-eight words (15%), phoneme /w/ occurs in one hundred and seventy-nine words (11%), phoneme /u:/ occurs in one hundred and sixty-four words (11%), phoneme /u/ occurs in ninety-nine words (6%), phoneme /uə/ occurs in forty-seven words (3%), phoneme /æ/ occurs in nineteen words (1%), phoneme /I/ occurs only in five words (0.2%), phoneme /ɪə/ occurs only in two words (0.1%) and which is the least. Totally one thousand five hundred and sixty words have grapheme u in **medially before** occurrence.

3.18.3. **u = /i/, /A/, /u/, /ə/, /uː/, /uə/, /w/, (ə), /æ/- (ə), /auə/**

**Medially after Occurrence**


The grapheme u in the combinations of -tu- is pronounced as /i/.

u in the combination -tu- is pronounced as /i/ and occurs only in one word (100%).

Example:
1. lettuce /ketts/

u in the combination -bu- is pronounced as /A/ and occurs in eight words (1.7%).
Example:
1. abundance /abʌndəns/ 2. abundant /abʌndənt/

u in the combination -cu- is pronounced as /A/ and occurs in thirty-five words (7.6%).
Example:
1. cucumber /kjuːkʌmbər/ 2. incumbent /ɪnˈkʌmbənt/

u in the combination -du- is pronounced as /A/ and occurs in forty-four words (9.6%).
Example:
1. redundancy /rɪˈdʌndənsi/ 2. redundant /rɪˈdʌndənt/

u in the combination -fu- is pronounced as /A/ and occurs only in four words (0.9%).
Example:
1. defunct /dɪfʌŋkt/ 2. refund /rɪˈfʌnd/

u in the combination -gu- is pronounced as /A/ and occurs in eight words (1.7%).
Example:
1. disgust /dɪˈɡʌst/ 2. disgusted /dɪˈɡʌstɪd/
u in the combination -hu- is pronounced as /Λ/ and occurs in thirty-two words (7%).
Example:
1. thumbtack /θʌmtæk/ 2. thunder /θændər/ 

u in the combination -iu- is pronounced as /Λ/ and occurs only in one word (0.2%).
Example:
1. triumphant /traiʌmφænt/ 

u in the combination -ju- is pronounced as /Λ/ and occurs in ten words (2.2%).
Example:
1. conjunction /kəndʒəŋkʃən/ 2. subjunctive /səbʌndʒəŋtrʌv/ 

u in the combination -ku- is pronounced as /Λ/ and occurs in nine words (2%).
Example:
1. skunk /skʌŋk/ 2. pick-up /pɪkʌp/ 

u in the combination -lu- is pronounced as /Λ/ and occurs in sixty-two words (13.5%).
Example:
1. slumber /slʌmbər/ 2. plumber /plʌmər/ 

u in the combination -mu- is pronounced as /Λ/ and occurs in five words (1.1%).
Example:
1. emulsion /ɪməljən/ 2. tumultuous /tʌmʌltjuəs/
u in the combination -nu- is pronounced as /ʌ/ and occurs in twenty-two words (4.8%).
Example:
1. outnumber /autnʌmbər/ 2. renunciation /rənənsieʃən/

u in the combination -ou- is pronounced as /ʌ/ and occurs in forty-one words (9%).
Example:
1. youngster /ˈjʌŋsta/ 2. country /ˈkʌntri/

u in the combination -pu- is pronounced as /ʌ/ and occurs in seventeen words (3.7%).
Example:
1. sputter /spʌtə/ 2. compulsion /ˈkɔmpljənʃən/

u in the combination -ru- is pronounced as /ʌ/ and occurs in one hundred and six words (23.1%).
Example:
1. crumble /ˈkrʌmbəl/ 2. grumble /ˈgrʌmbl/

u in the combination -su- is pronounced as /ʌ/ and occurs in twenty words (4.4%).
Example:
1. consumption /ˈkənsəmʃən/ 2. presumption /prəzəmʃən/

u in the combination -tu- is pronounced as /ʌ/ and occurs in twenty-nine words (6.3%).
Example:
1. stunning /ˈstʌnɪŋ/ 2. stunt /ˈstʌnt/
u in the combination -vu- is pronounced as /ʌ/ and occurs only in three
words (0.7%).
Example:
1. divulge /dəvʌldʒ/ 2. convulsion /kənvʌlsʃn/

u in the combination -xu- is pronounced as /ʌ/ and occurs only in two
words (0.4%).
Example:
1. exult /ɪɡzʌlt/ 2. mix-up /mɪksʌp/


u in the combination -bu- is pronounced as /u/ and occurs only in four
words (4.9%).
Example:
1. ambush /əmbʌʃ/ 2. ebullient /ɪbʌlɪənt/

u in the combination -du- is pronounced as /u/ and occurs in fourteen
words (17.1%).
Example:
1. individual /ɪndɪvɪdʒuəl/ 2. graduation /grɑːdʒuˈeɪʃn/

u in the combination -fu- is pronounced as /u/ and occurs only in four
words (4.9%).
Example:
1. unfulfilled /ʌnfʊlfɪld/ 2. skillful /ˈskɪlfəl/

u in the combination -ju- is pronounced as /u/ and occurs only in two
words (2.4%).
Example:
1. conjugal /kəndʒuˈɡæl/ 2. conjugate /kəndʒuˈɡeɪt/
u in the combination -mu- is pronounced as /u/ and occurs only in one word (1.2%).
Example:
1. talmud /tælmud/

u in the combination -ou- is pronounced as /u/ and occurs in seven words (8.5%).
Example:
1. bouquet /bʌkɪt/ 2. couldn’t /kudənt/

u in the combination -pu- is pronounced as /u/ and occurs only in three words (3.6%).
Example:
1. in-put /ɪnˈpʊt/ 2. output /ˈaʊtput/

u in the combination -ru- is pronounced as /u/ and occurs in seven words (8.5%).
Example:
1. quadruple /kwɒdrʌpl/ 2. menstrual /ˈmenstrʊəl/

u in the combination -su- is pronounced as /u/ and occurs only in two words (2.4%).
Example:
1. visualize /vɪzəˈlaɪz/ 2. visual /vɪʒəˈlɛl/

u in the combination -tu- is pronounced as /u/ and occurs in thirty-two words (39%).
Example:
1. factual /fækʃuəl/ 2. actually /əkʃuəli/

u in the combination -xu- is pronounced as /u/ and occurs in six words (7.3%).

u in the combination -bu- is pronounced as /ə/ and occurs only in four words (1.3%).
Example:
1. album /ælbəm/ 2. auburn /ɔːbən/

u in the combination -cu- is pronounced as /ə/ and occurs in twelve words (4%).
Example:
1. circumspect /sɜːkɔmppekt/ 2. circumvent /sɜːkəmvent/

u in the combination -du- is pronounced as /ə/ and occurs in seven words (2.3%).
Example:
1. memorandum /məˈmɔːrəndəm/ 2. pendulum /ˈpɛndələm/

u in the combination -eu- is pronounced as /ə/ and occurs only in three words (1%).
Example:
1. mausoleum /məˈsəliːəm/ 2. museum /ˈmjuːziəm/

u in the combination -fu- is pronounced as /ə/ and occurs only in three words (1%).
Example:
1. sulfur /ˈsʌlfər/ 2. colorful /ˈkʌlərfəl/

u in the combination -gu- is pronounced as /ə/ and occurs in six words (2%).
Example:
1. disfigure /dɪsˈfɪɡər/ 2. fungus /ˈfʌŋɡəs/
u in the combination -hu- is pronounced as /ə/ and occurs only in two words (0.7%).
Example:
1. brochure /ˈbrʊʃə/ 2. yoghurt /ˈjɒɡɜːrt/
u in the combination -iu- is pronounced as /ə/ and occurs in eight words (2.6%).
Example:
1. triumph /ˈtrɪəmф/ 2. crematorium /kreməˈtɔːriəm/
u in the combination -ju- is pronounced as /ə/ and occurs in eight words (2.6%).
Example:
1. conjure /ˈkɒndʒər/ 2. injure /ˈɪndʒər/
u in the combination -lu- is pronounced as /ə/ and occurs in thirteen words (4.3%).
Example:
1. columnist /ˈkɒləmnɪst/ 2. voluntary /ˈvɒləntərɪ/
u in the combination -mu- is pronounced as /ə/ and occurs in five words (1.6%).
Example:
1. maximum /ˈmæksɪməm/ 2. minimum /ˈmɪnɪməm/
u in the combination -nu- is pronounced as /ə/ and occurs in twelve words (4%).
Example:
1. anus /ˈeɪnəs/ 2. bonus /ˈbɒnəs/
u in the combination -ou- is pronounced as /ə/ and occurs in ninety-nine words (32.7%).
Example:
1. labour /ˈleɪbər/ 2. harbour /ˈhaːbər/

u in the combination -pu- is pronounced as /ə/ and occurs only in four words (1.3%).
Example:
1. acupuncture /əkˈjuːpəntʃər/ 2. campus /ˈkæmpəs/

u in the combination -qu- is pronounced as /ə/ and occurs only in three words (1%).
Example:
1. lacquer /ˈlækər/ 2. liquor /ˈliːkər/

u in the combination -ru- is pronounced as /ə/ and occurs in eighteen words (5.9%).
Example:
1. instrument /ɪnˈstrəmənt/ 2. instrumental /ɪnˈstrəməntəl/

u in the combination -su- is pronounced as /ə/ and occurs in thirty words (9.9%).
Example:
1. consummate /kənˈsəʊmət/ 2. usually /ˈjuːʒuəli/

u in the combination -tu- is pronounced as /ə/ and occurs in sixty-five words (21.4%).
Example:
1. ultimatum /ˈʌltɪmətəm/ 2. momentum /ˈməʊməntəm/
Example:
1. seize /si:z3/ 

The grapheme u in the combinations of -cu-, -du-, -eu-, -hu-, -ju-, -lu-, -ou-, -ru-, -su-, -tu- is pronounced as /u:/.

u in the combination -cu- is pronounced as /u:/ and occurs only in three words (1.9%).
Example:
1. recuperate /ri:k3pər3t/ 2. jacuzzi /d3əku:zi/ 

u in the combination -du- is pronounced as /u:/ and occurs only in one word (0.6%).
Example:
1. hinduism /hindu:iz3m/ 

u in the combination -eu- is pronounced as /u:/ and occurs only in four words (2.5%).
Example:
1. rheumatism /ru:matiz3m/ 2. maneuver /mænju:v3/ 

u in the combination -hu- is pronounced as /u:/ and occurs only in two words (1.2%).
Example:
1. parachute /paerafurt/ 2. rhubarb /ru:ba:b/ 

u in the combination -ju- is pronounced as /u:/ and occurs only in two words (1.2%).
Example:
1. adjudicate /sd3u:dik3t/ 2. rejuvenate /rd3u:v3net3/ 

u in the combination -lu- is pronounced as /u:/ and occurs in seventeen words (44.4%).
Example:
1. illuminate /ɪluːˈmaɪnət/ 2. secluded /ˈsɪkluːd/  
   u in the combination -ou- is pronounced as /u:/ and occurs in fifteen words (9.4%).
Example:
1. boutique /ˈbʊtɪk/ 2. coupon /ˈkʌpən/  
   u in the combination -ru- is pronounced as /u:/ and occurs in fifty-two words (32.5%).
Example:
1. truant /truːənt/ 2. crucial /ˈkrjuːʃəl/  
   u in the combination -su- is pronounced as /u:/ and occurs in five words (3.1%).
Example:
1. issue /ɪsuː/ 2. lawsuit /ˈlɔːsuːt/  
   u in the combination -tu- is pronounced as /u:/ and occurs in five words (3.1%).
Example:
1. statue /ˈsteɪʃuː/ 2. fortune /fərtʃuːn/  
The grapheme u in the combinations of -lu-, -ou-, -pu-, -su-, -tu-, -xu- is pronounced as /ʊə/.  
   u in the combination -lu- is pronounced as /ʊə/ and occurs only in two words (14.3%).
Example:
1. plural /ˈplʊərəl/ 2. pluralism /ˈplʊərlɪzm/  
   u in the combination -ou- is pronounced as /ʊə/ and occurs only in three words (21.4%).
Example:
1. tourism /təʊrɪzəm/ 2. gourmet /ɡʊəˈmɛt/ 
   u in the combination -su- is pronounced as /uə/ and occurs in six words (42.8%).
Example:
1. reassuring /riːəʃuərɪŋ/ 2. unsure /ʌnʃuər/ 
   u in the combination -tu- is pronounced as /uə/ and occurs only in one word (7.1%).
Example:
1. caricature /ˈkærɪkət̪uər/ 
   u in the combination -xu- is pronounced as /uə/ and occurs only in one word (7.1%).
Example:
1. luxurious /ˈlʌksəriəs/ 
   The grapheme u in the combinations of -pu-, -su- is pronounced as /w/.
   u in the combination -qu- is pronounced as /w/ and occurs in one hundred and seven words (95.5%).
Example:
1. acquire /əkwəraɪ/ 2. acquit /əkwɪt/ 
   u in the combination -su- is pronounced as /w/ and occurs in five words (4.5%).
Example:
1. assuage /əsweɪdʒ/ 2. ensuite /ɪnswiːt/ 
   The grapheme u in the combinations of -bu-, -cu-, -eu-, -et-, -hu-, -lu-, -nu-, -ou-, -qu-, -su-, -tu- is pronounced as (Ø) (it is silent).
u in the combination -bu- is pronounced as (Ø) and occurs only in ten words (3.1%).
Example:
1. wellbuilt /welbilt/ 2. rebuild /ri:brild/

u in the combination -cu- is pronounced as (Ø) and occurs only in ten words (3.1%).
Example:
1. biscuit /biskit/ 2. circuit /s3:kit/

u in the combination -eu- is pronounced as (Ø) and occurs only in three words (2.4%).
Example:
1. amateurish /æmətrɪʃ/ 2. entrepreneur /ˈentəprənərs/:

u in the combination -fu- is pronounced as (Ø) and occurs only in two words (1.6%).
Example:
1. frankfurter /ˈfræŋkfʊtə/ 2. refurbish /ri:fɜːbɪʃ/

u in the combination -gu- is pronounced as (Ø) and occurs in twenty-nine words (25.4%).
Example:
1. bodyguard /bɒdɪɡɑːd/ 2. lifeguard /ˈlaɪfgɑːd/

u in the combination -hu- is pronounced as (Ø) and occurs in six words (4.8%).
Example:
1. church /tʃɜːtʃ/ 2. churn /tʃɜːn/

u in the combination -lu- is pronounced as (Ø) and occurs in three words (2.4%).
Example:
1. blurt /blɔːt/ 2. splurge /spʌrʒ/ 
   u in the combination -nu- is pronounced as (Ə) and occurs only in three words (2.4%).
Example:
1. minute /ˈmɪnɪt/ 2. minutes /ˈmɪnɪts/ 
   u in the combination -ou- is pronounced as (Ə) and occurs in nine words (8%).
Example:
1. bourbon /ˈbɔːrbən/ 2. courtesy /ˈkɜːrtəsi/ 
   u in the combination -qu- is pronounced as (Ə) and occurs in twenty-eight words (24.6%).
Example:
1. piquant /ˈpɪkənt/ 2. boutique /ˈbʊtɪk/ 
   u in the combination -su- is pronounced as (Ə) and occurs in five words (4%).
Example:
1. resurface /ˈriːsɜːf/ 2. resurgence /ˈriːsaŋz/ 
   u in the combination -tu- is pronounced as (Ə) and occurs only in sixteen words (13.9%).
Example:
1. disturb /ˈdɪstɜːb/ 2. downturn /ˈdaʊntɜːrn/ 
   The grapheme u in the combinations of -au-, -ou- is pronounced as /əʊ/. 
   u in the combination -au- is pronounced as /əʊ/ and occurs in six words (85.7%).
Example:
1. cauliflower /ˈkɔːlɪflɔːr/ 2. sausage /ˈsɔʊsɪdʒ/
u in the combination -ou- is pronounced as /d/ and occurs only in one word (14.3%).
Example:
1. glouble /glɒbjəl/

The grapheme u in the combinations of -cu-, -fu-, -gu-, -ju-, -mu-, -ou-, -qu-, -ru-, -su-, -tu- is pronounced as /ə/- (it is silent).

u in the combination -cu- is pronounced as /ə/- (it) and occurs only in three words (2.6%).
Example:
1. difficult /dɪfɪkəlt/ 2. faculty /fækəlti/

u in the combination -fu- is pronounced as /ə/- (it) and occurs in seventy-four words (63.2%).
Example:
1. bashful /ˈbæʃfʊl/ 2. baleful /ˈbeɪlfʊl/

u in the combination -gu- is pronounced as /ə/- (it) and occurs only in one word (0.8%).
Example:
1. mogul /məʊgəl/

u in the combination -ju- is pronounced as /ə/- (it) and occurs only in one word (0.8%).
Example:
1. injury /ˈɪnʤəri/

u in the combination -mu- is pronounced as /ə/- (it) and occurs only in one word (0.8%).
Example:
1. simultaneous /sɪməˈtɛrniəs/
u in the combination -ou- is pronounced as /ə/- and occurs only in six words (5.1%).
Example:
1. labourer /ˈleɪbrər/ 2. nutritious /ˈnjuːtrɪʃəs/

u in the combination -qu- is pronounced as /ə/- and occurs only in one word (0.8%).
Example:
1. conqueror /ˈkɒŋkərər/

u in the combination -ru- is pronounced as /ə/- and occurs only in one word (0.8%).
Example:
1. gerund /ˈdʒɜːnd/

u in the combination -su- is pronounced as /ə/- and occurs in twelve words (10.2%).
Example:
1. consul /ˈkɒnsəl/ 2. measurable /ˈmeʒərəbl/

u in the combination -tu- is pronounced as /ə/- and occurs in seventeen words (14.5%).
Example:
1. fortunate /ˈfɔːtʃənt/ 2. saturate /ˈsætəreɪt/

The grapheme u in the combinations of -ou- is pronounced as /auə/.

u in the combination -ou- is pronounced as /auə/ and occurs only in one word (100%).
Example:
1. devour /ˈdɪvər/
Table showing grapheme combination of \textit{u} and corresponding phoneme in the medially after occurrence

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Graphs showing medially after occurrence and corresponding phonemes of grapheme u

- /a/, 458, 33%
- /e/, 304, 22%
- /æ/, 124, 9%
- (ε), 117, 9%
- /æ/-ε, 112, 8%
The above graphs show the number of words having u grapheme medially after occurrence and their corresponding phonemes. Phoneme /æ/ occurs medially after in four hundred and fifty-eight words (33%) which is the maximum. Phoneme /ə/ occurs in three hundred and four words (22%), phoneme /l/ occurs in one hundred and sixty words (12%), phoneme /ə/ (it is silent) occurs in one hundred and twenty-four words (9%), phoneme /l/ occurs in three hundred and seventeen words (9%), phoneme /w/ occurs in one hundred and twelve words (8%), phoneme /y/ occurs in eighty-two words (6%), phoneme /u/ occurs in thirteen words (1%), phoneme /l/ occurs only in one word (0.1%) and phoneme /au/ occurs only in one word (0.1%) and which is the least. Totally one thousand three hundred and seven-two words have grapheme u in medially after occurrence.

3.18.4. u = /u:/ Final Occurrence

The grapheme u occurs finally in four combinations. These four combinations are -on#, -ru#, -tu#, -vu# and they occur in six words. There are no words with final occurrence of -an#, -bu#, -cu#, -du#, -eu#, -fu#, -gu#, -hu#, -iu#, -ju#, -ku#, -lu#, -mu#, -nu#, -pu#, -qu#, -su#, -uu#, -wu#, -xu#, -yu#, -zu# combinations.

The grapheme u in the combinations of -ru#, -vu# is pronounced as /u:/.

u in the combination -ru# is pronounced as /u:/ and occurs only in two words (66.7%).

Example:
1. guru /gu:ru:/
2. thru /θru:/
u in the combination -vu# is pronounced as /u:/ and occurs only in one word (33.3%).

Example:

1. dejavu /deɪˈzuː/
Table showing grapheme combination of \textit{u} and corresponding phoneme in the final occurrence

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<tr>
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<tr>
<td>-bu#</td>
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<td>-cu#</td>
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<td>Total</td>
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</tr>
</tbody>
</table>


\( v \) in the combination \(-av-\) is pronounced as /v/ and occurs in ninety-three words (15.6%).

Example:
1. naval /næval/ 2. behaved /bɪheɪvd/

\( v \) in the combination \(-bv-\) is pronounced as /v/ and occurs only in two words (0.3%).

Example:
1. subversive /səbˈvɜːrɪv/ 2. subvert /səˈvɜːrt/

\( v \) in the combination \(-dv-\) is pronounced as /v/ and occurs in thirty words (5%).

Example:
1. advent /ədˈvent/ 2. adverb /ədˈvɜːr/ 

\( v \) in the combination \(-ev-\) is pronounced as /v/ and occurs in one hundred and twenty-three words (20.7%).

Example:
1. believable /bɪˈliːvəbl/ 2. grievance /ɡriˈvæns/

\( v \) in the combination \(-iv-\) is pronounced as /v/ and occurs in one hundred and thirty words (21.9%).
Example:
1. arrival /ərərvl/ 2. diver /dərvər/

v in the combination -lv- is pronounced as /v/ and occurs in thirteen-seven words (6.2%).

Example:
1. absolve /æbzɔlv/ 2. calves /kælvz/

v in the combination -mv- is pronounced as /v/ and occurs only in one word (0.2%).

Example:
1. circumvent /sɜːkəmvent/

v in the combination -nv- is pronounced as /v/ and occurs in seventy-nine words (13.3%).

Example:
1. canvas /kænvəs/ 2. convert /kənvət/

v in the combination -ov- is pronounced as /v/ and occurs in eighty-four words (14.1%).

Example:
1. approval /əprəvl/ 2. removal /rɪmuːvl/

v in the combination -rv- is pronounced as /v/ and occurs in six words (1%).

Example:
1. cervix /sɜːvɪks/ 2. conservatism /kənsəvətɪzm/

v in the combination -sv- is pronounced as /v/ and occurs only in one word (0.2%).

Example:
1. transvestite /trænzvɛstət/
v in the combination -uv- is pronounced as /v/ and occurs in seven words (1.2%).

Example:
1. duvet /djuːvət/ 2. maneuver /mənuːvər/

The grapheme v in the combinations of -iv- is pronounced as (Ø) (it is silent).

v in the combination -iv is pronounced as (Ø) and occurs only in one word (100%).

Example:
1. driveway /draɪweɪ/
Table showing grapheme combination of 'v' and corresponding phoneme in the medially after occurrence

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Graphs showing medially after occurrence and corresponding phonemes of grapheme v

Phonemes

- /v/ (0)
- (ø) 1, 0.2%
- /v/ 593, 99.8%

Number of Words 656
The above graphs show the number of words having $v$ grapheme medially after occurrence and their corresponding phonemes. Phoneme $/v/$ occurs medially after in five hundred and ninety-three words (99.8%) which is the maximum. Phoneme ($\emptyset$) (it is silent) occurs only in one word (0.2%) which is the least. Totally five hundred and ninety-four words have grapheme $v$ in medially after occurrence.
3.20.1. \( w = /w/ \), (θ) Initial Occurrence

The grapheme \( w \) occurs initially in six combinations. These six combinations are \( wa-, we-, wh-, wi-, wo-, wr- \) and they occur in four hundred and sixty-five words. There are no words with initial occurrence of \( wb-, wc-, wd-, wf-, wg-, wj-, wk-, wl-, wm-, wn-, wp-, wq-, ws-, wt-, wu-, wv-, ww-, wx-, wy-, wz- \) combinations.

The grapheme \( w \) in the combinations of \( wa-, we-, wh-, wi-, wo- \) is pronounced as \( /w/ \).

\( w \) in the combination \( wa- \) is pronounced as \( /w/ \) and occurs in one hundred and sixteen words (28.1%).

Example:
1. wacky \( /waeki/ \) 2. wad \( /wad/ \)

\( w \) in the combination \( we- \) is pronounced as \( /w/ \) and occurs in eighty-one words (19.7%).

Example:
1. we \( /wi:/ \) 2. weak \( /wi:k/ \)

\( w \) in the combination \( wh- \) is pronounced as \( /w/ \) and occurs in fifty-eight words (14.1%).

Example:
1. whack \( /waek/ \) 2. whale \( /weil/ \)

\( w \) in the combination \( wi- \) is pronounced as \( /w/ \) and occurs in eighty-six words (20.9%).

Example:
1. wicked \( /wikid/ \) 2. wicker \( /wikar/ \)

\( w \) in the combination \( wo- \) is pronounced as \( /w/ \) and occurs in seventy-one words (17.2%).
Example:
1. wobble /wobl/ 2. woe /wɔː/ 

The grapheme w in the combinations of wh-, wr- is pronounced as (ə) (it is silent).

w in the combination wh- is pronounced as (ə) and occurs in nineteen words (35.8%).
Example:
1. whom /huːm/ 2. who /huː/ 

w in the combination wr- is pronounced as (ə) and occurs in thirty-four words (64%).
Example:
1. wrangle /raŋɡl/ 2. wrap /ræp/
Table showing grapheme combination of w and corresponding phoneme in the initial occurrence

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</table>
Graphs showing initial occurrence and corresponding phonemes of grapheme \( w \)

**Bar Graph**

- **Phonemes**: /\( w \)/, (\( \varepsilon \)穑)
- **Number of Words**: 412, 53% for /\( w \)/, 11% for (\( \varepsilon \)穑)

**Pie Chart**

- (\( \varepsilon \)穑), 53, 11%
- /\( w \)/, 412, 89%
The above graphs show the number of words having \( w \) grapheme initial occurrence and their corresponding phonemes. Phoneme /\( w \)/ occurs initial in four hundred and twelve words (89%) which is the maximum. Phoneme (\( \emptyset \)) (it is silent) occurs in fifty-three words (11%) which is the least. Totally four hundred and sixty-five words have grapheme \( w \) in initial occurrence.

### 3.20.2. \( w = /u/, /u:/, /w/, (\emptyset) \) Medially before Occurrence


The grapheme \( w \) in the combinations of -we- is pronounced as /\( u \)/.  
\( w \) in the combination -we- is pronounced as /\( u \)/ and occurs only in one word (100%).
Example: 1. sewer /\( /s\ u:\v/\)

The grapheme \( w \) in the combinations of -wa-, -we-, -wi-, -wm-, -wo-, -ws- is pronounced as /\( u:/\).  
\( w \) in the combination -wa- is pronounced as /\( u:/\) and occurs only in one word (8.3%).
Example: 1. sewage /\( /s\ u:\d\v/\)

\( w \) in the combination -we- is pronounced as /\( u:/\) and occurs in six words (50%).
Example:

1. jewel /\( /d\v u:\e\v/\)  
2. jeweller /\( /d\v u:\e\l\v/\)
w in the combination -wh- is pronounced as /w/ and occurs in nine words (4.2%).
Example:
1. anywhere /eniweə/ 2. nowhere /nəuweə/

w in the combination -wi- is pronounced as /w/ and occurs in fifty words (23.5%).
Example:
1. bewitch /biwitʃ/ 2. clockwise /klɔkwaɪz/

w in the combination -wo- is pronounced as /w/ and occurs in thirty-three words (15.5%).
Example:
1. artwork /aːtwɜːk/ 2. bookworm /bukwɜːm/

The grapheme w in the combinations of -we-, -wl-, -wr- is pronounced as (Ø) (it is silent).

w in the combination -we- is pronounced as (Ø) and occurs only in two words (50%).
Example:
1. answer /aːnsə/ 2. answerphone /aːnsəfəun/

w in the combination -wl- is pronounced as (Ø) and occurs only in four words (50%).
Example:
1. acknowledge /əknəlɪdʒ/ 2. knowledge /nəlɪdʒ/

w in the combination -wr- is pronounced as (Ø) and occurs in eight words (57%).
Example:
1. playwright /pleɪrəɪt/ 2. rewrite /riːrəɪt/
Table showing grapheme combination of w and corresponding phoneme in the medially before occurrence

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665
Graphs showing **medially before** occurrence and corresponding phonemes of grapheme **w**

**Bar Graph:**
- Phonemes: **/w/**, **/ø/**, **/u:/**, **/u/**
- Number of Words: 213, 14, 12, 1

**Pie Chart:**
- **/w/**, 213, 89%
- **/ø/**, 14, 6%
- **/u:/**, 12, 5%
- **/u/**, 1, 0.1%

Number of Words: 666
The above graphs show the number of words having w grapheme medially before occurrence and their corresponding phonemes. Phoneme /w/ occurs medially before in two hundred and thirteen words (89%) which is the maximum. Phoneme (ə) (it is silent) occurs in fourteen words (6%), phoneme /u:/ occurs in twelve words (5%) and phoneme /u/ (0.1%) which is the least. Totally two hundred and forty words have grapheme w in medially before occurrence.

3.2.0.3. \( w = /u:/, /w/, (\emptyset) \) Medially after Occurrence


The grapheme w in the combinations of -ew- is pronounced as /u:/.

w in the combination -ew- is pronounced as /u:/ and occurs in ten words (100%).

Example:
1. crewman /'kruːmaen/ 2. sewage /'suːdʒ/ 


w in the combination -aw- is pronounced as /w/ and occurs in twelve words (6.8%).

Example:
1. faraway /'færəwei/ 2. unaware /'ənəwər/
Example:

1. handiwork /hændɪwɜːk/

   w in the combination -kw- is pronounced as /w/ and occurs only in three
words (1.7%).

Example:

1. backward /baɪkwəd/ 2. bookworm /bʊkwɜːm/

   w in the combination -lw- is pronounced as /w/ and occurs in five words
(2.8%).

Example:

1. always /ɔːlweɪz/ 2. railway /reɪli,weɪ/  

   w in the combination -mw- is pronounced as /w/ and occurs only in one
word (0.6%).

Example:

1. teamwork /tiːmwaːk/ 

   w in the combination -nw- is pronounced as /w/ and occurs in twenty
words (11.3%).

Example:

1. brainwash /breɪnwɔʃ/ 2. inward /ɪnˈwɜːd/  

   w in the combination -ow- is pronounced as /w/ and occurs only in three
words (1.7%).

Example:

1. towards /təˈwɜːz/ 2. two-way /tuːˈweɪ/  

   w in the combination -pw- is pronounced as /w/ and occurs only in three
words (1.7%).

Example:

1. sleepwalk /sliːpˈwɜːk/ 2. stopwatch /ˈstɑːpwaʊtʃ/  

669
w in the combination -rw- is pronounced as /w/ and occurs in twelve words (6.8%).
Example:
1. afterwards /a:ftəwədʒ/ 2. stairway /steərweɪ /

w in the combination -sw- is pronounced as /w/ and occurs in ten words (5.6%).
Example:
1. crosswalk /krɒswɔːk/ 2. password /pɑːsw3ːd/

w in the combination -tw- is pronounced as /w/ and occurs in twenty-one words (11.9%).
Example:
1. eastward /iːstwə:d/ 2. knitwear /nitweər/ 

w in the combination -yw- is pronounced as /w/ and occurs in six words (0.6%).
Example:
1. anyway /eniweɪ/ 2. plywood /plaiwud/

The grapheme w in the combinations of -ew-, -gw-, -nw-, -ow-, -pw-, -sw-, -tw-, -yw- is pronounced as (Ø) (it is silent).

w in the combination -ew- is pronounced as (Ø) and occurs only in two words (15.4%).
Example:
1. rewrite /riːrət/ 2. typewriter /taɪprətaɪər/ 

w in the combination -gw- is pronounced as (Ø) and occurs only in one word (7.7%).
Example:
1. song-writer /sɒŋˈraɪtaɪər/
w in the combination -nw- is pronounced as (ə) and occurs only in two words (15.4%).
Example:
1. unwrap /ʌnˈraɪp/ 2. unwritten /ʌnˈraɪtn/

w in the combination -ow- is pronounced as (ə) and occurs only in four words (30.8%).
Example:
1. acknowledge /əˈknoʊlɪdʒ/ 2. knowledge /ˈnəʊlɪdʒ/

w in the combination -pw- is pronounced as (ə) and occurs only in one word (7.7%).
Example:
1. shipwreck /ʃɪpˈrek/ 

w in the combination -sw- is pronounced as (ə) and occurs only in one word (7.7%).
Example:
1. answer /ˈænsər/ 2. answer-phone /ˈænsəfən/ 

w in the combination -tw- is pronounced as (ə) and occurs only in one word (7.7%).
Example:
1. scriptwriter /ˈskrɪptraɪtər/ 

w in the combination -yw- is pronounced as (ə) and occurs only in one word (7.7%).
Example:
1. playwright /ˈpleɪraɪt/
Table showing grapheme combination of w and corresponding phoneme in the medially after occurrence

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<thead>
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<th>w</th>
<th>/w/</th>
<th>(ø)</th>
<th>/u:/</th>
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</table>
Graphs showing medially after occurrence and corresponding phonemes of grapheme w

Phonemes /w/ (0) /u:/ (0), 13.7%
/u:/, 10.5%
/w/, 177, 88%

Number of Words:

- /w/: 177
- (Ø): 13
- /u:/: 10

Phoneme Distribution:

- /w/ (88%)
- (Ø) (13.7%)
- /u:/ (10.5%)
The above graphs show the number of words having w grapheme medially after occurrence and their corresponding phonemes. Phoneme /w/ occurs medially after in one hundred and seventy-seven words (88%) which is the maximum. Phoneme (∅) (it is silent) occurs in thirteen words (7%) and phoneme /u:/ occurs in ten words (5%) which is the least. Totally two hundred words have grapheme w in medially after occurrence.

3.20.4. w = /u:/ Final Occurrence

The grapheme w occurs finally in three combinations. These three combinations are -aw#, -ew#, -ow#, and they occur in one hundred and thirteen words. There are no words with final occurrence of -bw#, -cw#, -fw#, -gw#, -hw#, -iw#, -jw#, -kw#, -lw#, -mw#, -nw#, -pw#, -qw#, -sw#, -tw#, -uw#, -vw#, -ww#, -xw#, -yw#, -zw# combinations.

The grapheme w in the combinations of -ew# is pronounced as /u:/.

w in the combination -ew# is pronounced as /u:/ and occurs in thirteen words (100%).

Example:
1. cashew /kæʃu:/
2. drew /dru:/

674
Table showing grapheme combination of w and corresponding phoneme in the final occurrence

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3.21.1. x = /z/ Initial Occurrence

The grapheme x occurs initially in two combinations. These two combinations are xe-, xy-, and they occur in four words. There are no words with initial occurrence of xa-, xb-, xc-, xd-, xf-, xg-, xh-, xi-, xj-, xk-, xl-, xm-,xn-, xo-, xp-, xq-, xr-, xs-, xt-, xu-, xv-, xx-, xz- combinations.

The grapheme x in the combinations of xe-, xy- is pronounced as /z/.

x in the combination xe- is pronounced as /z/ and occurs only in one word (50%).
Example:
1. xenophobia /zenəufəbiə/

x in the combination xe- is pronounced as /z/ and occurs only in one word (50%).
Example:
1. xylophone /ˈzɪloʊfaʊn/
Table showing grapheme combination of x and corresponding phoneme in the initial occurrence

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3.21.4. $x = /z/$ Medially after Occurrence


The grapheme $x$ in the combinations of -nx- is pronounced as /z/.

$x$ in the combination -nx- is pronounced as /z/ and occurs only in one word (100%).

Example:

1. anxiety /æŋzərəti/
Table showing grapheme combination of x and corresponding phoneme in the medially after occurrence

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</table>
3.22.2. \( y = /i/, /\text{a}/, /i/, /\text{e}/, /j/, /\text{a}i\text{a}/, (\emptyset) \)

**Medially before Occurrence**


The grapheme \( y \) in the combinations of -yc-, -yg-, -yj-, -yl-, -ym-, -yn-, -yp-, -yr-, -ys-, -yt- is pronounced as /i/:

\( y \) in the combination -yc- is pronounced as /i/ and occurs only in four words (3.7%).

Example:
1. bicycle /baɪsɪkl/ 2. cyclical /sɪklɪk/ 3. pyjamas /pɪdʒəməz/

\( y \) in the combination -yg- is pronounced as /i/ and occurs only in one word (0.9%).

Example:
1. oxygen /ɒksɪdʒən/

\( y \) in the combination -yj- is pronounced as /i/ and occurs only in one word (0.9%).

Example:
1. pyjamas /pɪdʒəməz/

\( y \) in the combination -yl- is pronounced as /i/ and occurs only in four words (3.7%).

Example:

1. cylinder /ˈsɪlɪndər/ 2. idyllic /ɪdɪˈlɪk/
y in the combination -ym- is pronounced as /i/ and occurs in twenty-four four words (22.2%).
Example:
1. anonymity /ænənəməti/ 2. anonymous /ænənəməs/

y in the combination -yn- is pronounced as /i/ and occurs in nineteen words (17.6%).
Example:
1. cynic /sɪnɪk/ 2. cynical /sɪnɪkl/ 

y in the combination -yp- is pronounced as /i/ and occurs in eight words (7.4%).
Example:
1. apocalypse /ɒpəkəlps/ 2. crypt /kript/

y in the combination -yr- is pronounced as /i/ and occurs in seven words (6.5%).
Example:
1. lyrical /lɪrɪkl/ 2. lyrics /lɪrɪks/

y in the combination -ys- is pronounced as /i/ and occurs in thirty-two words (29.6%).
Example:
1. abyss /æbɪs/ 2. analyst /ænəlɪst/

y in the combination -yt- is pronounced as /i/ and occurs in eight words (7.4%).
Example:
1. myth /mɪθ/ 2. polythene /pɒlɪθi:n/
The grapheme y in the combinations of -yl-, -ys- is pronounced as /ə/.

y in the combination -yl- is pronounced as /ə/ and occurs only in one word (33.3%).
Example:
1. cylindrical /səˈlɪndrɪkəl/

y in the combination -ys- is pronounced as /ə/ and occurs only in two words (66.7%).
Example:
1. analysis /əˈnæləsis/ 2. paralysis /pəˈræləsis/


y in the combination -yb- is pronounced as /i/ and occurs in six words (20%).
Example:
1. anybody /enɪˈbodi/ 2. everybody /evrɪˈbodi/

y in the combination -yd- is pronounced as /i/ and occurs only in one word (3.3%).
Example:
1. everyday /ɪˈvridət/ 

y in the combination -ye- is pronounced as /i/ and occurs only in one word (3.3%).
Example:
1. polyester /ˈpɒlɪəstər/ 

y in the combination -yf- is pronounced as /i/ and occurs only in one word (3.3%).
Example:
1. jellyfish /dʒelɪfɪʃ/
   y in the combination -yh- is pronounced as /i/ and occurs only in one word (3.3%).
Example:
1. anyhow /enɪhoʊ/
   y in the combination -yi- is pronounced as /i/ and occurs only in two words (6.7%).
Example:
1. babyish /beɪbɪʃ/ 2. worrying /wɔrɪŋ/
   y in the combination -ym- is pronounced as /i/ and occurs only in one word (3.3%).
Example:
1. gymnasium /dʒɪm'næziəm/
   y in the combination -yo- is pronounced as /i/ and occurs only in four words (13.3%).
Example:
1. anyone /enɪˈwʌn/ 2. beyond /bɪənd/
   y in the combination -yp- is pronounced as /i/ and occurs only in three words (10%).
Example:
1. anyplace /ˈɛnɪplaɪs/ 2. everyplace /ˈɛvrɪplaɪs/
   y in the combination -yr- is pronounced as /i/ and occurs only in one word (3.3%).
Example:
1. copyright /ˈkɒpɪrɑːt/
y in the combination -yt- is pronounced as /i/ and occurs in five words (16.7%).
Example:
1. anything /eni@rεn/ 2. boobytrap /bu:bɪt ræp/

y in the combination -yw- is pronounced as /i/ and occurs only in four words (13.3%).
Example:
1. anyway /eniwei/ 2. anywhere /eniwea V


y in the combination -ya- is pronounced as /ei/ and occurs only in one word (2.4%).
Example:
1. betrayal /bɪt ræiol/

y in the combination -yb- is pronounced as /ei/ and occurs only in four words (9.7%).
Example:
1. daybreak /deɪ bræk/ 2. lay-by /leɪ bai/

y in the combination -yc- is pronounced as /ei/ and occurs only in one word (2.4%).
Example:
1. daycare /deɪ kεə/
Example:
1. daydream /deɪdri:m/

   y in the combination -ye- is pronounced as /eɪ/ and occurs only in four
   words (9.7%).

Example:
1. bricklayer /brɪkˈleɪər/  2. dismayed /dɪsmeɪd/

   y in the combination -yf- is pronounced as /eɪ/ and occurs only in one
   word (2.4%).

Example:
1. playful /ˈpleɪfl/  2. playgroup /pleɪgruːp/

   y in the combination -yg- is pronounced as /eɪ/ and occurs only in two
   words (4.9%).

Example:
1. playgound /pleɪɡraʊnd/  2. playgroup /pleɪgruːp/

   y in the combination -yh- is pronounced as /eɪ/ and occurs only in one
   word (2.4%).

Example:
1. mayhem /meɪhəm/

   y in the combination -yi- is pronounced as /eɪ/ and occurs only in two
   words (4.9%).

Example:
1. graying /ˈgreɪɪŋ/  2. saying /ˈseɪɪŋ/

   y in the combination -yl- is pronounced as /eɪ/ and occurs only in three
   words (7.3%).

Example:
1. daylight /ˈdeɪlət/  2. daylights /ˈdeɪləts/
y in the combination -ym- is pronounced as /ɛt/ and occurs only in three words (7.3%).
Example:
1. layman /lɛiman/ 2. payment /pɛı̂mənt/

y in the combination -yo- is pronounced as /ɛt/ and occurs in six words (14.6%).
Example:
1. bayonet /beɪənət/ 2. lay-off /lɛı̂f/

y in the combination -yp- is pronounced as /ɛt/ and occurs only in one word (2.4%).
Example:
1. playpen /pleɪpɛn/

y in the combination -yr- is pronounced as /ɛt/ and occurs only in one word (2.4%).
Example:
1. playroom /pleɪruːm/

y in the combination -ys- is pronounced as /ɛt/ and occurs only in three words (7.3%).
Example:
1. wayside /weɪsайд/

y in the combination -yt- is pronounced as /ɛt/ and occurs only in four words (9.7%).
Example:
1. plaything /pleɪθɪŋ/ 2. playtime /pleɪtɜrm/
y in the combination -yv- is pronounced as /ei/ and occurs only in one word (2.4%).
Example:
1. they’ve /deiv/

y in the combination -yw- is pronounced as /ə/ and occurs only in two words (4.9%).
Example:
1. playwright /pleɪrɪtt/ 2. wayward /weɪwɑːd/


y in the combination -ya- is pronounced as /aɪ/ and occurs only in two words (1.6%).
Example:
1. kayak /kaɪək/ 2. cyanide /saɪənaid/

y in the combination -yb- is pronounced as /aɪ/ and occurs only in three words (2.4%).
Example:
1. cybercafe /saɪbəkæfeɪ/ 2. cyberspace /saɪbəspɛs/.

y in the combination -yc- is pronounced as /aɪ/ and occurs in twenty-two words (17.5%).
Example:
1. cycle /saikl/ 2. cyclone /saɪklən/.

y in the combination -yd- is pronounced as /aɪ/ and occurs in six words (4.8%).
Example:
1. hydrant  /haɪdrənt/  
2. hydraulic  /haɪdrəlɪk/

y in the combination -ye- is pronounced as /aɪ/ and occurs in eleven words (8.7%).

Example:
1. flyer  /ˈflaɪər/  
2. eyed  /aɪd/

y in the combination -yg- is pronounced as /aɪ/ and occurs only in three words (2.4%).

Example:
1. bygone  /baɪɡən/  
2. bygones  /baɪɡənз/

y in the combination -yi- is pronounced as /aɪ/ and occurs in ten words (7.9%).

Example:
1. belying  /bɛləɪŋ/  
2. crying  /ˈkraɪŋ/

y in the combination -yk- is pronounced as /aɪ/ and occurs only in one word (0.8%).

Example:
1. dyke  /daɪk/

y in the combination -yl- is pronounced as /aɪ/ and occurs in twelve words (9.5%).

Example:
1. asylum  /əˈsæləm/  
2. dryly  /draɪli/

y in the combination -ym- is pronounced as /aɪ/ and occurs only in two words (1.6%).

Example:
1. enzyme  /ˈɛnzaɪm/
y in the combination -yn- is pronounced as /ai/ and occurs in six words (4.8%).
Example:
1. dynamic /dainaemik/ 2. dynamite /dainamait/

y in the combination -yo- is pronounced as /ai/ and occurs only in two words (1.6%).
Example:
1. fl-over /flaiouvoV 2. buyout /baiaut/

y in the combination -yp- is pronounced as /ai/ and occurs in twenty-six words (20.6%).
Example:
1. bypass /baipa:s/ 2. hype /haip/

y in the combination -ys- is pronounced as /ai/ and occurs in eleven words (8.7%).
Example:
1. analyse /ænlaiz/ 2. myself /maıself/

y in the combination -yt- is pronounced as /ai/ and occurs in six words (4.8%).
Example:
1. byte /bait/ 2. scythe /saıθ/

y in the combination -yw- is pronounced as /ai/ and occurs only in one word (0.8%).
Example:
1. plywood /plaiwud/

y in the combination -yz- is pronounced as /ai/ and occurs only in two words (1.6%).
Example:
1. paralyze /pærəlæz/ 2. analyze /ænəlaɪz/

The grapheme y in the combinations of -ya-, -yo- is pronounced as /j/.

y in the combination -ya- is pronounced as /j/ and occurs only in two
words (66.7%).
Example:
1. churchyard /tʃɜːʧjɔːd/ 2. vine-yard /vɪnjɔːd/

y in the combination -yo- is pronounced as /j/ and occurs only in one
word (33.3%).
Example:
1. canyon /kæŋjɔn/

The grapheme y in the combinations of -ye-, -yo-, -yr- is pronounced as
/eə/.

y in the combination -ye- is pronounced as /eə/ and occurs only in one
word (33.3%).
Example:
1. prayer /preər/  

y in the combination -yo- is pronounced as /eə/ and occurs only in one
word (33.3%).
Example:
1. mayor /meər/  

y in the combination -yr- is pronounced as /eə/ and occurs only in one
word (33.3%).
Example:
1. they’re /ðeər/
The grapheme y in the combinations of -yr- is pronounced as /aɪə/.

y in the combination -yr- is pronounced as /aɪə/ and occurs only in one word (100%).
Example:
1. pyre /paɪə/.

The grapheme y in the combinations of -yb-, -yh-, -yn- is pronounced as (ə).

y in the combination -yb- is pronounced as (ə) and occurs only in one word (33.3%).
Example:
1. keyboard /ki:bəd/.

y in the combination -yh- is pronounced as (ə) and occurs only in one word (33.3%).
Example:
1. keyhole /ki:hol/.

y in the combination -yn- is pronounced as (ə) and occurs only in one word (33.3%).
Example:
1. keynote /ki:nəut/.
Table showing grapheme combination of y and corresponding phoneme in the medially before occurrence

<table>
<thead>
<tr>
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<th>/j/</th>
<th>(ø)</th>
<th>/s/</th>
<th>/ʃ/</th>
<th>/æ/</th>
<th>/ɛ/</th>
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Graphs showing **medially before** occurrence and corresponding phonemes of grapheme *y*
The above graphs show the number of words having \( y \) grapheme **medially before** occurrence and their corresponding phonemes. Phoneme /\( i/\) occurs in one hundred and eight words (55\%) which is the maximum. Phoneme /\( ei/\) occurs in forty-one words (20\%), phoneme /\( i/\) occurs in thirty words (16\%), phoneme /\( j/\) occurs only in three words (2\%), phoneme /\( a/\) occurs only in three words (2\%), phoneme /\( ea/\) occurs only in three words (2\%), Phoneme (\( \theta \)) (it is silent) occurs only in three words (2\%) and phoneme /\( a\theta a/\) occurs only in one word (1\%) which is the least. Totally one hundred and ninety-two words have grapheme \( y \) in **medially before** occurrence.

3.22.3. \( y = /i/, /\theta/, /i/, /ei/, /ai/, /j/, /ea/, (\theta) \) **Medially after** Occurrence


The grapheme \( y \) in the combinations of -by-, -cy-, -dy-, -gy-, -hy-, -ly-, -ny-, -ry-, -sy-, -xy- is pronounced as /\( i/\).

\( y \) in the combination -by- is pronounced as /\( i/\) and occurs only in four words (8\%).

Example:
1. abysmal /\( \text{a}\text{b}\text{iz}\text{m}^\text{tl}/ 2. abyss /\text{a}\text{b}\text{is}/

\( y \) in the combination -cy- is pronounced as /\( i/\) and occurs only in two words (4\%).

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Example:
1. bicycle /ˈbaɪsɪkl/ 2. tricycle /ˈtraɪsɪkl/
y in the combination -dy- is pronounced as /ɪ/ and occurs only in two words (4%).
Example:
1. odyssey /ˈɒddsɪsi/ 2. idyllic /ɪdɪlɪk/
y in the combination -gy- is pronounced as /ɪ/ and occurs only in two words (4%).
Example:
1. clergyman /ˈklɜːdʒmæn/ 2. misogyny /ˈmɪsədʒnɪ /
y in the combination -hy- is pronounced as /ɪ/ and occurs in thirteen words (26%).
Example:
1. asphyxiate /ɒsfɪksiət/ 2. physical /ˈfɪzɪkl/
y in the combination -ly- is pronounced as /ɪ/ and occurs in nine words (18%).
Example:
1. analyst /ˈænlist/ 2. polythene /ˈpɒlɪθi:n/
y in the combination -ny- is pronounced as /ɪ/ and occurs only in four words (8%).
Example:
1. acronym /ˌækraʊnɪm/ 2. eponymous /ˌɛpəˈnɪməs/
y in the combination -ry- is pronounced as /ɪ/ and occurs in seven words (14%).
Example:
1. acrylic /əkrɪlɪk/ 2. crypt /kript/
y in the combination -sy- is pronounced as /i/ and occurs in five words (10%).
Example:
1. asymmetrical /eisimetrik/ 2. ecosystem /i:kosistem/
y in the combination -xy- is pronounced as /i/ and occurs only in two words (4%).
Example:
1. oxygen /oksidjan/ 2. oxymoron /oksimɔron/

The grapheme y in the combinations of -ly- is pronounced as /ɑ/.
y in the combination -ly- is pronounced as /ɑ/ and occurs only in four words (100%).
Example:
1. analysis /anæliasis/ 2. apocalypse /opokalips/

y in the combination -by- is pronounced as /i/ and occurs only in three words (7.7%).
Example:
1. babyish /beibiif/ 2. boobytrap /bu:bitraep/
y in the combination -dy- is pronounced as /i/ and occurs in seven words (18%).
Example:
1. body building /bodi$bldin/ 2. teddybear /tedibea/
y in the combination -ey- is pronounced as /i/ and occurs only in two words (5.1%).
Example:
1. volleyball /volibɔ:l/ 2. beyond /biənd/

y in the combination -gy- is pronounced as /i/ and occurs only in two words (5.1%).
Example:
1. piggyback /pɪgɪbæk/ 2. piggybank /pɪgɪbæŋk/

y in the combination -ky- is pronounced as /i/ and occurs only in one word (2.6%).
Example:
1. milkyway /mɪlkwiˈeɪ/ 

y in the combination -ly- is pronounced as /i/ and occurs only in three words (7.7%).
Example:
1. jellyfish /dʒelifɪʃ/ 2. polyester /pɒliɛstər/ 

y in the combination -ny- is pronounced as /i/ and occurs in eight words (20.5%).
Example:
1. anybody /enɪˈbɒdi/ 2. anyhow /enɪˈhaʊ/ 

y in the combination -py- is pronounced as /i/ and occurs only in one word (2.6%).
Example:
1. copyright /ˈkɔpərɑːt/ 

y in the combination -ry- is pronounced as /i/ and occurs in nine words (23.1%).
Example:
1. carryall /kæriːl/ 2. embryo /embriəʊ/
y in the combination -sy- is pronounced as /i/ and occurs only in one word (2.6%).

Example:
1. easy-going /iːzɪgəʊŋ/
y in the combination -ty- is pronounced as /i/ and occurs only in one word (2.6%).

Example:
1. shantytown /ʃæntɪtaʊn/
y in the combination -vy- is pronounced as /i/ and occurs only in one word (2.6%).

Example:
1. heavy-handed /hevihænddrd/ 2. heavy-weight /heviwɛt/  

The grapheme y in the combinations of -ay-, -ey- is pronounced as /eɪ/.
y in the combination -ay- is pronounced as /ei/ and occurs in thirty-six words (92.3%).

Example:
1. maybe /meɪbi/ 2. daycare /deɪkeə/  
y in the combination -ey- is pronounced as /eɪ/ and occurs only in three words (7.7%).

Example:
1. greying /ˈɡreɪɪŋ/ 2. purveyor /pəˈverɪə/
y in the combination -ky- is pronounced as /aɪ/ and occurs only in four words (7.8%).
Example:
1. skydiving /skaɪdɪvɪŋ/ 2. skylight /skaɪlaɪt/

y in the combination -ly- is pronounced as /aɪ/ and occurs in fourteen words (27.4%).
Example:
1. analyse /ænlaɪz/ 2. flyer /flaɪər/

y in the combination -ry- is pronounced as /aɪ/ and occurs in five words (9.8%).
Example:
1. crying /krɛɪɪŋ/ 2. dryer /draɪər/

y in the combination -sy- is pronounced as /aɪ/ and occurs only in one word (2%).
Example:
1. asylum /əsəlaɪm/

y in the combination -ty- is pronounced as /aɪ/ and occurs in seven words (13.7%).
Example:
1. hairstyle /heɪstaɪl/ 2. lifestyle /laɪfstaiəl/

y in the combination -uy- is pronounced as /aɪ/ and occurs only in two words (3.9%).
Example:
1. buyer /baɪər/ 2. buyout /baɪəut/

y in the combination -zy- is pronounced as /aɪ/ and occurs only in one word (2%).
Example:
1. enzyme /enzaim/

The grapheme y in the combinations of -ey-, -ky-, -my-, -ny- is pronounced as /j/.

y in the combination -ey- is pronounced as /j/ and occurs only in one word (25%).
Example:
1. vineyard /vni:jod/

y in the combination -ky- is pronounced as /j/ and occurs only in one word (25%).
Example:
1. backyard /baekju:d/

y in the combination -my- is pronounced as /j/ and occurs only in one word (25%).
Example:
1. farmyard /fa:mja:d/

y in the combination -ny- is pronounced as /j/ and occurs only in one word (25%).
Example:
1. canyon /kaenjon/

The grapheme y in the combinations of -ay- is pronounced as /eə/.

y in the combination -ay- is pronounced as /eə/ and occurs only in two words (100%).
Example:
1. prayer /praə/ 2. mayor /meə/
The grapheme y in the combinations of -ey-, -sy- is pronounced as (£).

y in the combination -ey- is pronounced as (£) and occurs only in three words (75%).
Example:
1. keyboard /kiˈbo:d/ 2. keyhole /kiˈhɔul/

y in the combination -sy- is pronounced as (£) and occurs only in one word (25%).
Example:
1. topsy-turvy /ˈtopsiːtɜːvi/
Table showing grapheme combination of y and corresponding phoneme in the medially after occurrence

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<tr>
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Total: 703
Graphs showing medially after occurrence and corresponding phonemes of grapheme y
The above graphs show the number of words having *y* grapheme **medially after** occurrence and their corresponding phonemes. Phoneme /ai/ occurs **medially after** in fifty words (26%) which is the maximum. Phoneme /i/ occurs in forty-six words (24%), phoneme /i/ occurs in thirty-nine words (21%), phoneme /ei/ occurs in thirty-nine words (21%), phoneme /j/ occurs in five words (3%), phoneme /a/ occurs only in four words (2%), phoneme (Ø) (it is silent) occurs only in four words (2%) and phoneme /ea/ occurs only in two words (1%) which is the least. Totally one hundred and eighty-nine words have grapheme *y* in **medially after** occurrence.

### 3.22.4. *y* = /i/, /ei/, /ai/ Final Occurrence

The grapheme *y* occurs **finally** in twenty combinations. These twenty combinations are -ay#, -by#, -cy#, -dy#, -ey#, -fy#, -gy#, -hy#, -iy#, -ky#, -ly#, -my#, -ny#, -py#, -ry#, -sy#, -ty#, -vy#, -yy#, -zy# and they occur in one thousand three hundred and thirty-three words. There are no words with **final** occurrence of -jy#, -oy#, -qy#, -uy#, -wy#, -xy#, combinations.

The grapheme *y* in the combinations of -by#, -cy#, -dy#, -ey#, -fy#, -gy#, -hy#, -ky#, -ly#, -my#, -ny#, -py#, -ry#, -sy#, -ty#, -vy#, -wy#, -xy#, -zy# is pronounced as /i/.

*y* in the combination -by# is pronounced as /i/ and occurs in ten words (0.5%).

Example:

1. bobby /bɔbi/
2. chubby /tʃəbi/
y in the combination -cy# is pronounced as /i/ and occurs in sixty-one words (5.1%).

Example:

1. accuracy /əˈkærəsi/ 2. agency /eɪˈdʒənsi/

y in the combination -dy# is pronounced as /i/ and occurs in fifty-one words (4.3%).

Example:

1. already /oˈlərdi/ 2. antibody /æntɪbɒdi/

y in the combination -ey# is pronounced as /i/ and occurs in thirty-seven words (3.1%).

Example:

1. alley /ˈæli/ 2. barley /ˈbaːli/

y in the combination -fy# is pronounced as /i/ and occurs in eight words (0.7%).

Example:

1. comfy /ˈkɒmfi/ 2. fluffy /ˈflʌfi/

y in the combination -gy# is pronounced as /i/ and occurs in thirty-nine words (3.3%).

Example:

1. allergy /ˈælədʒi/ 2. anology /ænəˈlɒdʒi/

y in the combination -hy# is pronounced as /i/ and occurs in forty-six words (3.9%).

Example:

1. antipathy /ænˈtraθi/ 2. apathy /æpəθi/

y in the combination -ky# is pronounced as /i/ and occurs in thirty-two words (2.7%).
Example:
1. bulky /bɔːki/ 2. chalky /tʃɑːki/
  
y in the combination -ly# is pronounced as /i/ and occurs in two hundred and fifty-four words (21.4%).
Example:
1. actively /æktrvli/ 2. actually /æktʃuəli/
  
y in the combination -my# is pronounced as /i/ and occurs in twenty-four words (2%).
Example:
1. academy /əkədəmi/ 2. anatomy /ənætəmi/
  
y in the combination -ny# is pronounced as /i/ and occurs in forty-two words (3.5%).
Example:
1. alimony /ælɪməni/ 2. bony /bəuni/
  
y in the combination -p# is pronounced as /i/ and occurs in thirty words (2.5%).
Example:
1. pumpy /bʌmpi/ 2. chirpy /tʃɜːpi/
  
y in the combination -ry# is pronounced as /i/ and occurs in two hundred and fifty-nine words (21.8%).
Example:
1. accessory /əksəˈri/ 2. adultery /ədəˈltri/
  
y in the combination -sy# is pronounced as /i/ and occurs in twenty-nine words (2.4%).
Example:
1. autopsy /əʊˈtɒpsɪ/ 2. bossy /ˈbɒsi/
y in the combination -ty# is pronounced as /i/ and occurs in two hundred
and forty-one words (20.3%).
Example:
1. activity /æktıvəti/ 2. adversity /ædvərsəti/

y in the combination -vy# is pronounced as /i/ and occurs in nine words
(0.7%).
Example:
1. envy /envi/ 2. heavy /hevi/

y in the combination -wy# is pronounced as /i/ and occurs only in four
words (0.3%).
Example:
1. chewy /ˈtʃuːi/ 2. shadowy /ˈʃædəʊi/

y in the combination -xy# is pronounced as /i/ and occurs only in four
words (0.3%).
Example:
1. galaxy /ˈɡæləksi/ 2. orthodoxy /ɔrθədɒksi/

y in the combination -zy# is pronounced as /i/ and occurs in nine words
(0.7%).
Example:
1. breezy /ˈbriːzi/ 2. crazy /ˈkraizə/
y in the combination -ey# is pronounced as /ei/ and occurs in five words (5.6%).
Example:
1. disobey /di'səubɛi/ 2. hey /hei/

The grapheme y in the combinations of -by#, -fy#, -ly#, -my#, -n#, -uy# is pronounced as /ai/.

y in the combination -by# is pronounced as /ai/ and occurs in nine words (17%).
Example:
1. hereby /hiəbaɪ/ 2. lullaby /luˈlæbæi/

y in the combination -fy# is pronounced as /ai/ and occurs in thirty-six words (67.7%).
Example:
1. amplify /əmplɪfaɪ/ 2. certify /səˈtɪfi/ 

y in the combination -ly# is pronounced as /ai/ and occurs in five words (9.3%).
Example:
1. ally /ælai/ 2. apply /əplai/

y in the combination -my# is pronounced as /ai/ and occurs only in one word (1.7%).
Example:
1. my /maɪ/

y in the combination -ry# is pronounced as /ai/ and occurs only in one word (1.7%).
Example:
1. dry /draɪ/ 2. wry /raɪ/

y in the combination -ty# is pronounced as /aɪ/ and occurs only in one word (1.7%).
Example:
1. pigsty /pɪgstaɪ/

y in the combination -uy# is pronounced as /aɪ/ and occurs only in one word (1.7%).
Example:
1. buy /baɪ/
Table showing grapheme combination of y and corresponding phoneme in the final occurrence

<table>
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<tr>
<th></th>
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<th>/ei/</th>
<th>/ai/</th>
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The above graphs show the number of words having y grapheme final occurrence and their corresponding phonemes. Phoneme /i/ occurs finally in one thousand one hundred eighty-nine words (89%) which is the maximum. Phoneme /ei/ occurs in ninety words (7%) and phoneme /ai/ occurs in fifty-four words (4%) which is the least. Totally one thousand three hundred thirty-three words have grapheme y in final occurrence.
3.23.2. $z = /z/, /ʒ/ \textit{Medially before Occurrence}$


The grapheme $z$ in the combinations of -za-, -ze-, -zi-, -zl-, -zo-, -zy- is pronounced as /$z$/.

$z$ in the combination -za- is pronounced as /$z$/ and occurs in eighteen words (8.3%).
Example:
1. bonanza /bənənzə/ 2. sizable /saɪzəbl/

$z$ in the combination -ze- is pronounced as /$z$/ and occurs in one hundred and forty-four words (66.3%).
Example:
1. agonize /əɡənaɪz/ 2. antagonize /ˈentəɡənatɪz/

$z$ in the combination -zi- is pronounced as /$z$/ and occurs in six words (2.8%).
Example:
1. blazing /ˈbleɪziŋ/ 2. freezing /ˈfriːziŋ/

$z$ in the combination -zl- is pronounced as /$z$/ and occurs in twelve words (5.5%).
Example:
1. fizzle /fizl/ 2. guzzle /gæzl/

*z* in the combination *-zo-* is pronounced as */z/* and occurs only in three words (1.4%).

Example:
1. razor /reɪzər/ 2. horizon /həˈraɪzn/

*z* in the combination *-zy-* is pronounced as */z/* and occurs in eight words (3.7%).

Example:
1. cozy /kəʊzi/ 2. crazy /kreɪzi/

The grapheme *z* in the combinations of *-zu-* is pronounced as */z/*.

*z* in the combination *-zu-* is pronounced as */z/* and occurs only in one word (100%).

Example:
1. seizure /siːˈzɔɪ/
Table showing grapheme combination of z and corresponding phoneme in the **medially before** occurrence

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</tr>
<tr>
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</tr>
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</tr>
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<td>-</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>216</strong></td>
<td><strong>1</strong></td>
<td><strong>217</strong></td>
</tr>
</tbody>
</table>

716
Graphs showing **medially before** occurrence and corresponding phonemes of grapheme *z*

**Bar Chart:**
- **Phonemes:** /z/, /ʒ/
- **Number of Words:**
  - /z/: 216
  - /ʒ/: 1

**Pie Chart:**
- /ʒ/, 1, 0.1%
- /z/, 216, 99.9%
The above graphs show the number of words having z grapheme **medially before** occurrence and their corresponding phonemes. Phoneme /z/ occurs **medially before** in two hundred and seventeen words (99.9%) which is the maximum. Phoneme /ʒ/ occurs only in one word (1%) which is the least. Totally two hundred and seventeen words have grapheme z in **medially before** occurrence.

### 3.23.3. z = /z/, (θ) Medially after Occurrence


The grapheme z in the combinations of -az-, -ez-, -gz-, -iz-, -nz-, -oz-, -yz- is pronounced as /z/. z in the combination -az- is pronounced as /z/ and occurs in thirty-three words (14%).

**Example:**

1. razor /reɪzər/  
2. crazy /ˈkreɪzi/ 

z in the combination -ez- is pronounced as /z/ and occurs in twelve words (5.1%).

**Example:**

1. breeze /briːz/  
2. frieze /ˈfriːz/ 

z in the combination -gz- is pronounced as /z/ and occurs only in one word (0.4%).
Example:
1. zigzag \( /\text{zigzæg}/ \)
   z in the combination -iz- is pronounced as /z/ and occurs in one hundred and forty words (59.6%).
Example:
1. lizard \( /\text{lizad}/ \) 2. sized \( /\text{sæzd}/ \)
   z in the combination -nz- is pronounced as /z/ and occurs in nine words (3.8%).
Example:
1. bonanza \( /\text{bænænzæ}/ \) 2. enzyme \( /\text{enzæm}/ \)
   z in the combination -oz- is pronounced as /z/ and occurs in twelve words (5.1%).
Example:
1. booze \( /\text{bu:z}/ \) 2. cozy \( /\text{kəuzi}/ \)
   z in the combination -yz- is pronounced as /z/ and occurs only in two words (0.8%).
Example:
1. analyze \( /\text{ænəlaiз}/ \) 2. paralyze \( /\text{pærəlaiz}/ \)
   The grapheme z in the combinations of -ez- is pronounced as (Ø)
   z in the combination -ez- is pronounced as (Ø) and occurs only in one word (100%).
Example:
1. rendezvous \( /\text{rendvuz}/ \)
Table showing grapheme combination of z and corresponding phoneme in the **medially after** occurrence

<table>
<thead>
<tr>
<th>z</th>
<th>/z/ (Ø)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>-az-</td>
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<td>33</td>
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</tr>
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<tr>
<td>-gz-</td>
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<td>1</td>
</tr>
<tr>
<td>-hz-</td>
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<td>-</td>
</tr>
<tr>
<td>-iz-</td>
<td>140 -</td>
<td>140</td>
</tr>
<tr>
<td>-jz-</td>
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</tr>
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</tr>
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</tr>
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<tr>
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<tr>
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</tr>
<tr>
<td>-qz-</td>
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</tr>
<tr>
<td>-rz-</td>
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<td>-zz-</td>
<td>26 -</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
<td>235 1</td>
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</table>
Graphs showing **medially after occurrence and corresponding phonemes of grapheme** $z$

<table>
<thead>
<tr>
<th>Phonemes</th>
<th>Number of Words</th>
</tr>
</thead>
<tbody>
<tr>
<td>/zl/</td>
<td>235</td>
</tr>
<tr>
<td>(ø)</td>
<td>1</td>
</tr>
</tbody>
</table>

$(ø), 1, 0.1\%$

/zl/, 235, 99.9%
The above graphs show the number of words having \( z \) grapheme medially after occurrence and their corresponding phonemes. Phoneme /z/ occurs medially after in two hundred and thirty-five words (99.9\%) which is the maximum. Phoneme (\( \theta \)) (it is silent) occurs only in one word (1\%) which is the least. Totally two hundred and thirty-six words have grapheme \( z \) in medially after occurrence.

### 3.23.4. \( z = /s/, /z/ \) Final Occurrence

The grapheme \( z \) occurs finally in three combinations. These three combinations are -iz#, -tz#, -zz# and they occur in eleven words. There are no words with final occurrence of -ax#, -bx#, -cx#, -dx#, -ex#, -fx#, -gx#, -hx#, -jx#, -kx#, -lx#, -mx#, -nx#, -ox#, -px#, -qx#, -rx#, -sx#, -ux#, -vx#, -wx#, -xx#, -yx# combinations.

The grapheme \( z \) in the combinations of -tz# is pronounced as /s/. 

\( z \) in the combination -tz# is pronounced as /s/ and occurs in six words (100\%).
Example:
1. blitz /blitzs/
2. glitz /glitzs/

The grapheme \( z \) in the combinations of -iz# is pronounced as /z/. 

\( z \) in the combination -iz# is pronounced as /z/ and occurs only in one word (20\%).
Example:
1. quiz /kwiz/
Table showing grapheme combination of **z** and corresponding phoneme in the final occurrence

<table>
<thead>
<tr>
<th>z</th>
<th>/s/</th>
<th>/z/</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>-az#</td>
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</tbody>
</table>
Graphs showing final occurrence and corresponding phonemes of grapheme z

Phonemes:
- /z/, 5, 45%
- /s/, 6, 55%

Number of Words:
- /s/, 6
- /z/, 5

Graph showing comparison of /s/ and /z/ phonemes:

- /s/, 6
- /z/, 5

Pie chart showing percentages:
- /z/, 5, 45%
- /s/, 6, 55%
The above graphs show the number of words having z grapheme final occurrence and their corresponding phonemes. Phoneme /s/ occurs finally in six words (55%) which is the maximum. Phoneme /z/ occurs in five words (45%) which is the least. Totally eleven words have grapheme z in final occurrence.