

DATA.STAT.840 Statistical Methods for Text Data Analysis

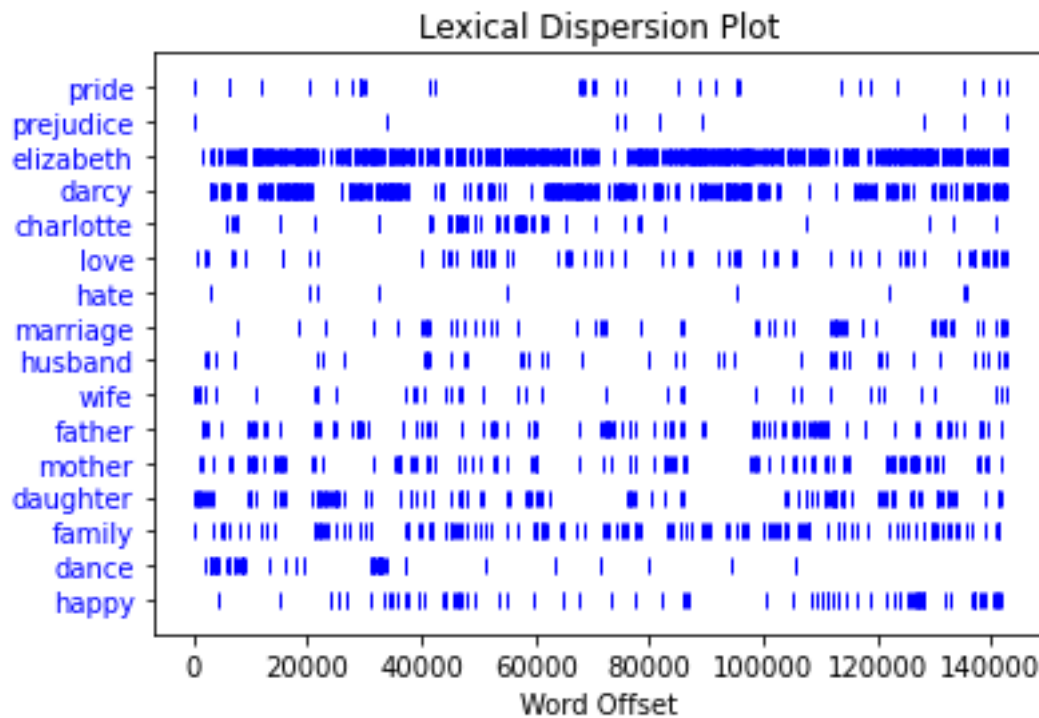
Exercises for Lecture 3: Collocations

Answered to problems 3.1, 3.2, 3.3(a,b only), 3.4, 3.5

3.1

Code in *E3_1.py*

Output from b)



It seems that Elizabeth is one of the main characters of this book. Also the name Darcy appears a lot in the book so I guess he is other main character, maybe the male protagonist. Charlotte, in the other had, appears only in the beginning and the middle of the book so she might be a side character and the storyline simply forgets her after the first half of the book. The term 'dance' appears a lot in the beginning of the book so that might be the main event where the story starts. Finally, the words 'marriage' and 'happy' appears both at the end of the book so I guess that the two main protagonist get married and the book has a happy end.

3.2

Code in *E3_2.py*

Outputs from b)

Displaying 25 of 29 matches:

cine , and those branch of physical science from which a naval adventurer might
ch lead to my predilection for that science . when i be thirteen year of age we
explode and that a modern system of science have be introduce which possess muc
in the great disdain for a would-be science which could never even step within
e branch of study appertain to that science as be build upon secure foundation
t deeply imbue in the secret of his science . he ask me several question concer
progress in the different branch of science appertain to natural philosophy . i
by the modern professor of natural science . with a confusion of idea only to
ry different when the master of the science seek immortality and power ; such v
hose vision on which my interest in science be chiefly found . i be require to
ry view of the present state of the science and explain many of its elementary
get : “ the ancient teacher of this science , ” say he , “ promise impossibilit
ent study and to devote myself to a science for which i believe myself to posse
ave not neglect the other branch of science . a man would make but a very sorry
r wish be to become really a man of science and not merely a petty experimental
ould have advance far enough in the science not to derange their mechanism . he
vate the acquaintance of the men of science of the university , and i find even
m can conceive of the enticement of science . in other study you go as far as o
death . i become acquaint with the science of anatomy , but this be not suffic
rect their inquiry towards the same science , that i alone should be reserve to
ement which every day take place in science and mechanic , i be encourage to ho
nishing progress i have make in the science . he soon perceive that i dislike t
object from my improvement , to the science itself , with a desire , as i evide
sympathise in my taste for natural science ; and his literary pursuit differ w
at that time i know nothing of the science of word or letter . “ the family ,

Displaying 25 of 49 matches:

uld be impress with no supernatural horror . i do not ever remember to have tr
ing-places . who shall conceive the horror of my secret toil as i dabble among
f the dream vanish , and breathless horror and disgust fill my heart . unable
lannel . i start from my sleep with horror ; a cold dew cover my forehead , my
 . oh ! no mortal could support the horror of that countenance . a mummy again
extreme weakness . mingle with this horror , i felt the bitterness of disappoi
is hand , and in a moment forgot my horror and misfortune ; i felt suddenly ,
will and power to effect purpose of horror , such as the deed which he have no
to announce publicly ; its astound horror would be look upon as madness by th
could make the murder memorable in horror . justine also be a girl of merit a
place round his neck , a murmur of horror and indignation fill the court . ju
countenance have alter . surprise , horror , and misery be strongly express .
ignominy ? i could not sustain the horror of my situation , and when i percei
ave before experienced sensation of horror , and i have endeavour to bestow up
and then continue , “ i think with horror , my sweet lady , that you should b
hetic soul , as , tear by remorse , horror , and despair , i behold those i lo
r ’ s health be deeply shake by the horror of the recent event . elizabeth be
myself on the grass , weigh down by horror and despair . at length i arrive at
ve create . i tremble with rage and horror , resolve to wait his approach and
tally be present at the trial ; his horror and indignation be uncontrollable w
 , in language which paint your own horror and render mine indelible . i sick
turn them from me with disdain and horror . the poor that stop at their door
of my person be the chief object of horror with those who have formerly behold
atha enter . who can describe their horror and consternation on behold me ? ag
ool in have expose my person to the horror of his child . i ought to have fami

Displaying 25 of 32 matches:

, i behold the wretch—the miserable monster whom i have create . he hold up the walk about . i dread to behold this monster , but i fear still more that henry me ! save me ! ” i imagine that the monster seize me ; i struggle furiously and restore me to life . the form of the monster on whom i have bestow existence be almost begin to think that i be the monster that he say i be . he threaten exco , and i live in daily fear lest the monster whom i have create should perpetrat come home , and men appear to me as monster thirst for each other ’ s blood . y d of your remain friends. ” “ abhor monster ! fiend that thou art ! the torture y convince that i be in reality the monster that i be , i be fill with the bitt d of none like me . be i , then , a monster , a blot upon the earth , from whic accurse creator ! why do you form a monster so hideous that even _you_ turn fro lently . ‘ let me go , ’ he cry ; ‘ monster ! ugly wretch ! you wish to eat me ou must come with me. ’ “ ‘ hideous monster ! let me go . my papa be a syndic—h ntent me . it be true , we shall be monster , cut off from all the world ; but t perform my engagement and let the monster depart with his mate before i allow happiness . my promise fulfil , the monster would depart for ever . or (so my itude . i do not doubt but that the monster follow me and would discover himsel will only exasperate my rage. ” the monster saw my determination in my face and rval—all leave behind , on whom the monster might satisfy his sanguinary and me at others i felt the finger of the monster already grasp my neck , and scream it be the watery , cloud eye of the monster , as i first saw them in my chamber , have fall a victim to me and the monster of my creation . i repassed , in my ould die to make her happy . if the monster execute his threat , death be inevi as if possess of magic power , the monster have blind me to his real intention rred . a grin be on the face of the monster ; he seem to jeer , as with his fie

Displaying 25 of 66 matches:

nd they be sufficient to conquer all fear of danger or death and to induce me however , lay to until the morning , fear to encounter in the dark those large re he be able to speak , and i often fear that his suffering have deprive him ong the tame scene of nature i might fear to encounter your unbelief , perhaps at a tale of superstition or to have fear the apparition of a spirit . darknes ion , listen attentively , catch and fear each sound as if it be to announce t if i seek to avoid the wretch whom i fear every turning of the street would pr y heart palpitate in the sickness of fear , and i hurry on with irregular step ho , on a lonely road , doth walk in fear and dread , and , have once turn rou dread to behold this monster , but i fear still more that henry should see him limb the hill or row on the lake . i fear that he will become an idle unless w ent to my recollection , but which i fear the detail to another would only imp y , might not be the less decisive . fear overcame me ; i dare no advance , dr , or to mock at my unhappiness ? ” i fear , my friend , that i shall render my et , as i draw near home , grief and fear again overcame me . night also close e evidence of fact a weight that , i fear , leave no hope for doubt . but she guiltless of this murder . i have no fear , therefore , that any circumstantia say i , “ and that shall be prove ; fear nothing , but let your spirit be che r , and they speak well of her ; but fear and hatred of the crime of which the ut do not mourn , dear girl . do not fear . i will proclaim , i will prove you ake her head mournfully . “ i do not fear to die , ” she say ; “ that pang be nd deprive the soul both of hope and fear . justine die , she rest , and i be alterable evil , and i live in daily fear lest the monster whom i have create the past . there be always scope for fear so long as anything i love remain be mighty as omnipotence—and i cease to fear or to bend before any be less almight

Comments:

The 'science' seems to appear a lot with basic grammatical articles but also when defining a certain branch of science (eg. physical science and natural science). The word 'monster' collocates a lot with the person who created the monster (eg. 'me', 'my' and 'I' appears widely with that word). The word 'fear' seems to appear usually with some context (eg. 'fear of danger', 'fear to die', 'fear each sound'). Finally, the word 'horror' occurs a lot with similar kind of uncomfortable emotions and feelings (eg. 'horror and disgust', 'horror and consternation', 'horror and indignation').

3.4

Code in *E3_4.py*

Output:

```
for the first fourteen years
    Location in original string: (8806, 8834)
for many years
    Location in original string: (15134, 15148)
for many years
    Location in original string: (31908, 31922)
for several years
    Location in original string: (36859, 36876)
for that science. When I was thirteen years
    Location in original string: (47419, 47462)
for nearly two years
    Location in original string: (85819, 85839)
for nearly six years
    Location in original string: (119234, 119254)
for many years
    Location in original string: (139039, 139053)
for many years
    Location in original string: (216187, 216201)
for many years
    Location in original string: (216732, 216746)
for several years
    Location in original string: (409212, 409229)
```

3.5

- Length of the document
 - Required disk space
- Metadata
 - Notation of the language, possible encoding formats
- Connectivity
 - Top organizations with patents on technologies mentioned in this article
- Popularity
 - Number of citations to this document
- Sentiment - derived feature of document content
 - Level of sarcasm
- Reception
 - Number of citations to this document