**Console outputs from test dataset Dummy\_Data\_After.csv**

Includes test print statements which are usually absent from the program.  
  
**Console output from bag of words only test – uses bagOfWordsOnlyTest():**

No of records uploaded: 20

TEST PRINT. Vocabulary list (note stop words included): ['aboard', 'abstain', 'all', 'and', 'annoyed', 'are', 'as', 'ask', 'at', 'away', 'book', 'class', 'clear', 'come', 'didn', 'die', 'disappeared', 'do', 'does', 'don', 'drinking', 'eat', 'enough', 'faster', 'father', 'first', 'from', 'get', 'getting', 'guess', 'halt', 'has', 'he', 'helen', 'her', 'here', 'his', 'if', 'in', 'is', 'it', 'japan', 'let', 'll', 'made', 'may', 'maybe', 'me', 'minute', 'my', 'near', 'no', 'not', 'notebook', 'nut', 'of', 'one', 'only', 'or', 'others', 'over', 'pushes', 'quickly', 'religious', 'right', 'room', 'selfishness', 'she', 'shoot', 'sick', 'some', 'stay', 'step', 'stolen', 'study', 'take', 'than', 'that', 'the', 'their', 'thin', 'this', 'time', 'to', 'tom', 'train', 'tries', 'try', 'us', 'view', 'want', 'was', 'watch', 'we', 'were', 'whenever', 'where', 'why', 'will', 'yesterday', 'you', 'your']

TEST PRINT. Vector shape (first figure is number of sentences, second is number of words in corpus): (20, 102)

SVM results

TRUE POSITIVE: 1

FALSE POSITIVE: 1

TRUE NEGATIVE: 1

FALSE NEGATIVE: 1

X axis: Bag of words test for formality classification. Y axis: Whether formal or informal sentence

Total predictions: 4

Accuracy: 0.50

Precision: 0.50

Recall: 0.50

False positive rate (fall-out) 0.50

ROC 0.75

Balanced accuracy: 0.50

TEST PRINT. List of predictions: [False True False True]

TEST PRINT. List of outcomes: [False False True True]

Logistic Regression results

TRUE POSITIVE: 1

FALSE POSITIVE: 0

TRUE NEGATIVE: 2

FALSE NEGATIVE: 1

X axis: Bag of words test for formality classification. Y axis: Whether formal or informal sentence

Total predictions: 4

Accuracy: 0.75

Precision: 1.00

Recall: 0.50

False positive rate: N/A

ROC 0.75

Balanced accuracy: 0.75

TEST PRINT. List of predictions: [False False False True]

TEST PRINT. List of outcomes: [False False True True]

Multinomial Bayes results

TRUE POSITIVE: 2

FALSE POSITIVE: 2

TRUE NEGATIVE: 0

FALSE NEGATIVE: 0

X axis: Bag of words test for formality classification. Y axis: Whether formal or informal sentence

Total predictions: 4

Accuracy: 0.50

Precision: 0.50

Recall: 1.00

False positive rate (fall-out) 1.00

ROC 0.75

Balanced accuracy: 0.50

TEST PRINT. List of predictions: [ True True True True]

TEST PRINT. List of outcomes: [False False True True]

Random forest results

TRUE POSITIVE: 0

FALSE POSITIVE: 0

TRUE NEGATIVE: 2

FALSE NEGATIVE: 2

X axis: Bag of words test for formality classification. Y axis: Whether formal or informal sentence

Total predictions: 4

Accuracy: 0.50

Precision: N/A

Recall: N/A

False positive rate: N/A

ROC 0.75

Balanced accuracy: 0.50

TEST PRINT. List of predictions: [False False False False]

TEST PRINT. List of outcomes: [False False True True]

**Console output from test not employing n-grams - uses testFeaturesNoBagOfWords()**

No of records uploaded: 20

TEST PRINT. Features to test: ['Number of adjectives', 'Number of nouns']

TEST PRINT. List of all formality classifications in dataset: [False, True, False, False, True, False, False, True, False, True, True, True, False, False, False, True, True, True, False, False]

TEST PRINT. Feature data: [[1.0, 1.0], [0.0, 1.0], [0.0, 2.0], [1.0, 0.0], [0.0, 2.0], [0.0, 0.0], [0.0, 1.0], [0.0, 1.0], [2.0, 1.0], [0.0, 1.0], [0.0, 2.0], [1.0, 2.0], [1.0, 1.0], [0.0, 1.0], [0.0, 2.0], [0.0, 3.0], [0.0, 2.0], [0.0, 2.0], [1.0, 1.0], [0.0, 0.0]]

SVM results

TRUE POSITIVE: 2

FALSE POSITIVE: 1

TRUE NEGATIVE: 1

FALSE NEGATIVE: 0

X axis: Number of adjectives and number of nouns - test on dummy spreadsheet Y axis: Whether formal or informal sentence

Total predictions: 4

Accuracy: 0.75

Precision: 0.67

Recall: 1.00

False positive rate (fall-out) 0.50

ROC 0.88

Balanced accuracy: 0.75

TEST PRINT. List of predictions: [ True False True True]

TEST PRINT. List of outcomes: [False False True True]

**Console output test covering n-grams and non n-gram features – uses testFeaturesIncBagOfWords()**

No of records uploaded: 20

TEST PRINT. Non n-gram features to test: ['Number of verbs', 'Number of adjectives', 'Number of prepositions']

TEST PRINT. Vocabulary list (note stop words excluded): ['aboard', 'abstain', 'annoyed', 'ask', 'away', 'book', 'class', 'clear', 'come', 'didn', 'die', 'disappeared', 'does', 'don', 'drinking', 'eat', 'faster', 'father', 'getting', 'guess', 'halt', 'helen', 'japan', 'let', 'll', 'maybe', 'minute', 'near', 'notebook', 'nut', 'pushes', 'quickly', 'religious', 'right', 'room', 'selfishness', 'shoot', 'sick', 'stay', 'step', 'stolen', 'study', 'time', 'tom', 'train', 'tries', 'try', 'view', 'want', 'watch', 'yesterday']

TEST PRINT. Vector shape (first figure is number of sentences, second is number of words in corpus): (20, 51)

TEST PRINT. List of all formality classifications in dataset: [False, True, False, False, True, False, False, True, False, True, True, True, False, False, False, True, True, True, False, False]

TEST PRINT. First list of feature data in list of feature data lists. Last three entries correspond

to the non n-gram features: [0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 1.

0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 1. 0. 0. 0. 0. 0. 0. 0. 0.

0. 0. 0. 2. 1. 0.]

SVM results

TRUE POSITIVE: 1

FALSE POSITIVE: 1

TRUE NEGATIVE: 1

FALSE NEGATIVE: 1

X axis: Dummy spreadsheet test. Number of verbs, adjectives and preposition plus binary unigram test with stop words excluded Y axis: Whether formal or informal sentence

Total predictions: 4

Accuracy: 0.50

Precision: 0.50

Recall: 0.50

False positive rate (fall-out) 0.50

ROC 0.50

Balanced accuracy: 0.50

TEST PRINT. List of predictions: [ True False True False]

TEST PRINT. List of outcomes: [False False True True]