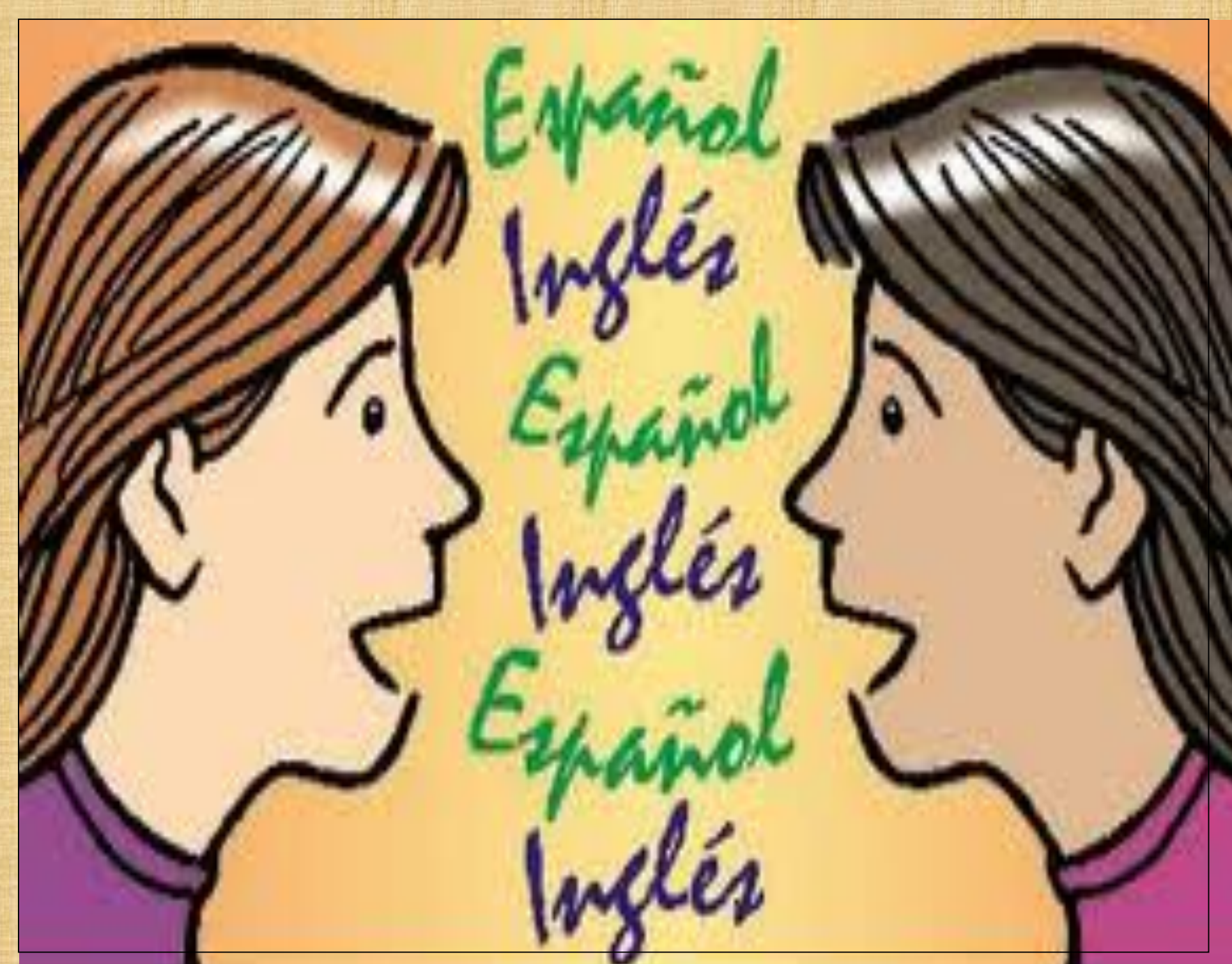


## 1. What is Code-switching?

- Code-switching is the concurrent use of different styles or languages in a conversation.
- Example (Spanish & English):

“ you could ask *papi* and *mami* to see if they like it.”



- Can occur within or between sentences.

### Types of Code-switching

- Marked Code-switching (Intentional).
- Unmarked Code-switching (Unintentional).

- Confidentiality.
- Emphasis.
- Solidarity.
- Distancing.
- Power.
- Quotation.
- Claims of identity/nationality.
- Non-accommodation/accommodation.

## 3. Objective

### Overall Objective

- To predict the reason for any case of marked code-switching in our data.

### Current Objective

- To model the topic changes in our data.

- Transcript of the South African Truth and Reconciliation Commission (TRC) hearing.
- Code-switching between Zulu, English and Afrikaans.



### Techniques Used

- Latent Semantic Analysis (LSA).
- K-means Clustering.

### Strategy

- Obtained the main topics across all the transcripts using Latent Semantic Analysis (LSA).
- Modeled the topic changes within a transcript using the main topics obtained using LSA.

## 6. Results

### Some of the main topics across all transcripts

Topic #6  
[‘praying’, ‘faith’, ‘adults’, ‘gathering’, ‘bible’, ‘congregation’]

Topic #10  
[‘maternity’, ‘backup’, ‘clinics’, ‘dispensary’]

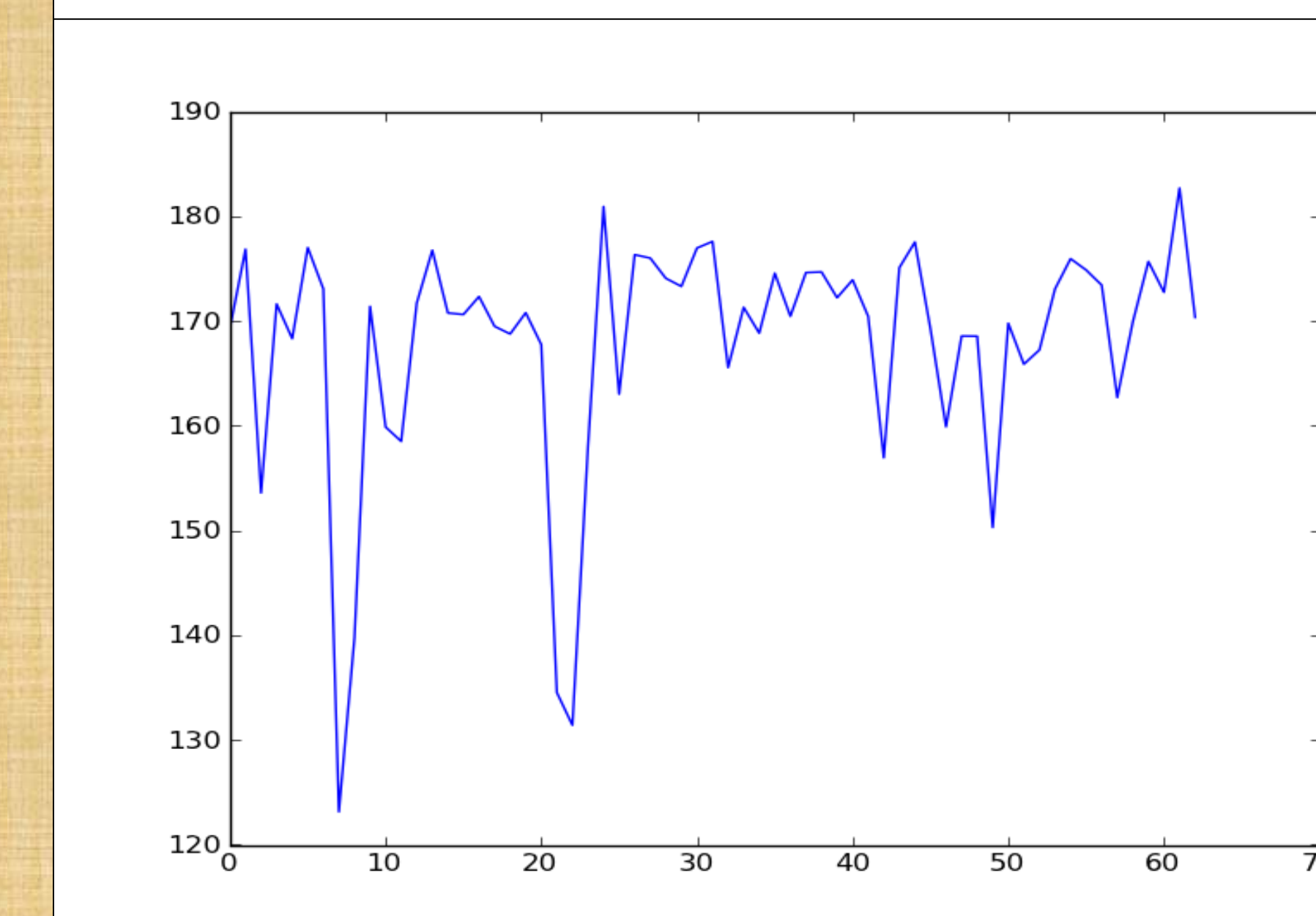
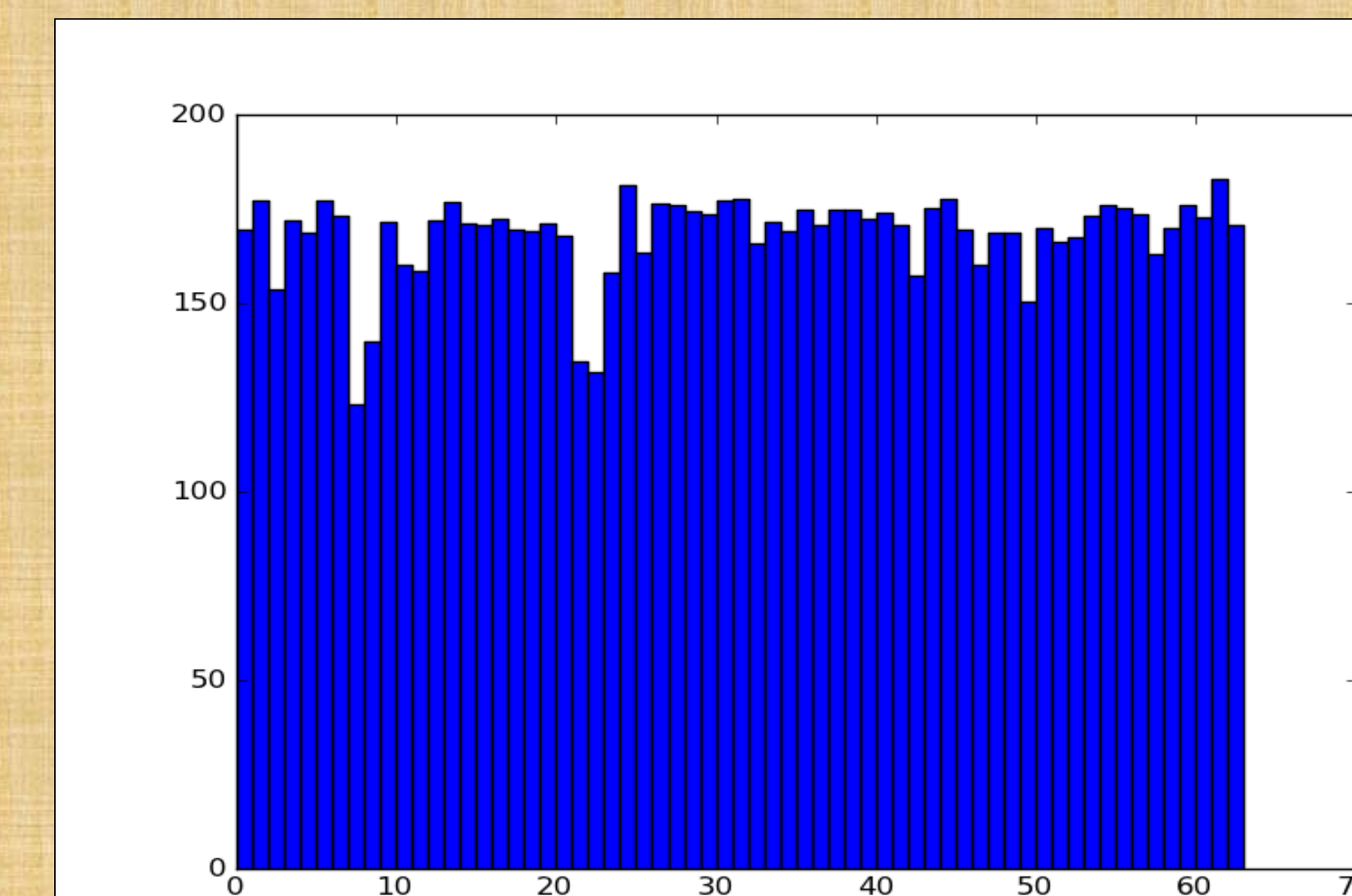
Topic #95  
[‘livestock’, ‘losses’, ‘properties’, ‘stock’, ‘generator’]

Topic #158  
[‘maladministration’, ‘embezzlement’, ‘corruption’]

Topic #183  
[‘detention’, ‘method’, ‘torture’, ‘sergeant’, ‘cell’, ‘assault’]

## 6. Results (Cont’d)

### Modelling topic changes in a conversation



## 7. Accomplishments

- Better understand the data.
- Obtained the main topics across all the transcripts.
- Better understand the strengths and weaknesses of the techniques used.
- Analyzed the topic changes in the hearing conversation.

## 8. Further Work

- Will employ other techniques such as:
  - Probabilistic Latent Semantic Analysis (PLSA)
  - Latent Dirichlet Allocation (LDA)
  - Neural networks
  - Markov Chains
- Work on accomplishing our overall objective of predicting the reason for cases of marked code-switching in our data.