ANALYSIS OF

# SG NATIONAL DAY SONGS

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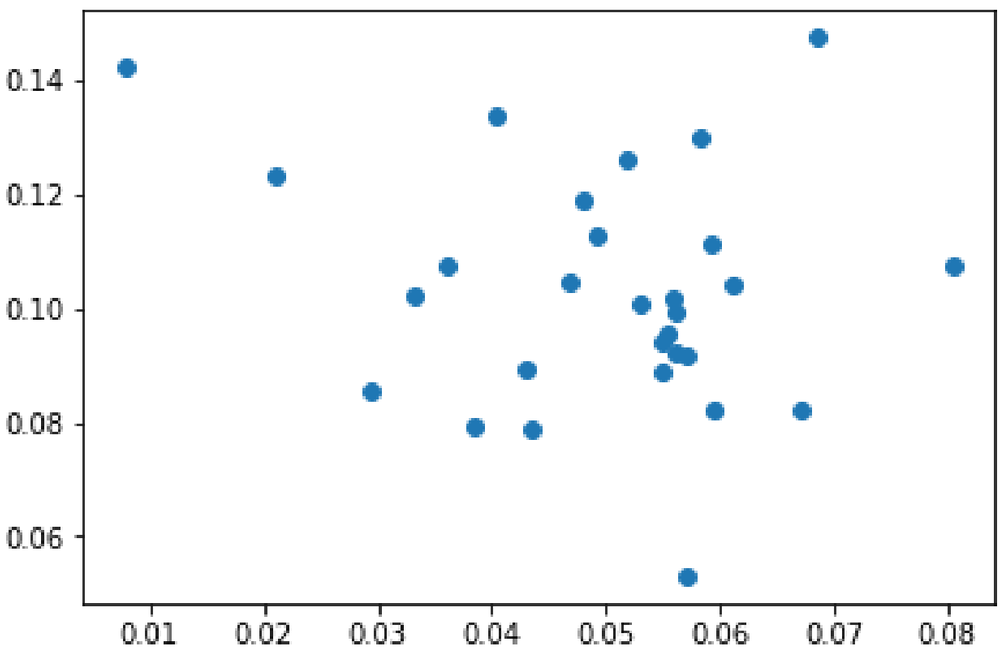
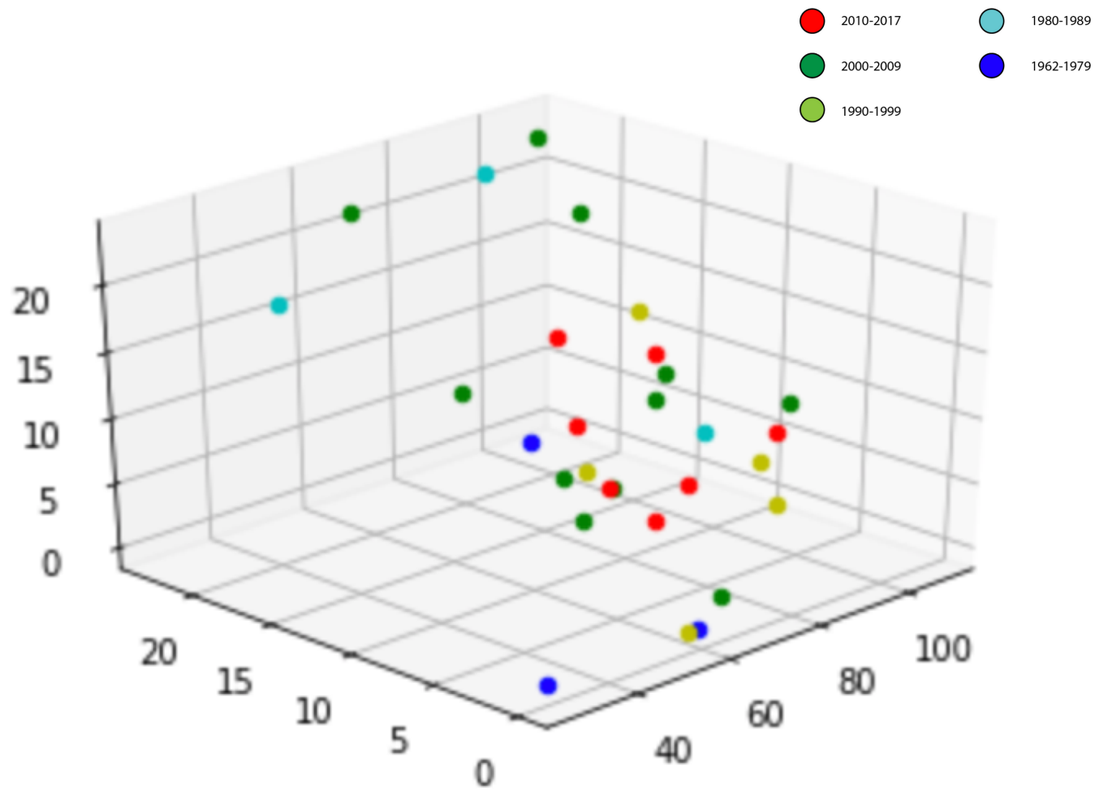
## INTRODUCTION

We all know Singapore National Day Songs... but do we "really" know them? Through this project, we aim to use analytical methods to obtain a heuristic study through the visuals from Clustering graphs & PCA Analysis. This gave us an opportunity to delve deeper into the patterns by using the Macroanalytical techniques that we learnt from our class readings. We also drew inspiration from a Stanford Literary Paper on Digital Humanities , titled 'Quantitative Formalism'.

## THE STATISTICS




2-Dimensional Plot of Centroids Produced




3 axes - Representing the Counts for Nouns, Verbs and Adjectives

## CLUSTERING WITH WORD2VEC

In order to capture semantic meaning, we turned to Word2Vec. Each song was reduced to its set of unique words, which were then converted into embedding vectors using Word2Vec.

The centroid of each set of vectors weas found and used to represent that song, being the combination of meaning within the song. These centroids were then clustered to identify similarity between songs with similar topics and themes.

## MOST FREQUENT WORD

For this method, we obtained the words specific to each song and converted it into its Language Action Type (LATs).

A frequency analysis of each LAT was done across all songs and the 3 highest LATs (Nouns, Verbs, and Adjectives) were chosen for comparison in a 3D chart.