Data Set Description -RapidMiner

The datasets provided in this study are related to middle school student interaction with ASSISTments online tutoring platform (Math). During their interaction with this software, a human expert observes students and codes them into one of the four states (Concentration, Confusion, Boredom, Frustration). These labels were them embedded with the student log data from ASSISTments platform. The folders and datasets were explained below.

**Affect\_Detection\_Data\_Set Folder:**

This folder consists of 4 files which consist of individual student affect states at a given time:

Affect\_Clip\_Labels\_Boredom\_Other\_States: In this data set, we have data samples related to Boredom which is labeled as BO and other states labeled as OT (Concentration, Frustration, and Confusion).

Here we are trying to classify Boredom and other classes to observe the prediction performance of algorithms.

Affect\_Clip\_Labels\_Concentration\_Other\_States: In this data set, we have data samples related to Concentration which is labeled as CO and other states labeled as OT (Confusion, Frustration, and Boredom).

Here we are trying to classify Concentration and other classes to observe the prediction performance of algorithms.

Affect\_Clip\_Labels\_Confusion\_Other\_States: In this data set, we have data samples related to Confusion which is labeled as CF and other states labeled as OT (Concentration, Frustration, and Boredom).

Here we are trying to classify Confusion and other classes to observe the prediction performance of algorithms.

Affect\_Clip\_Labels\_Frustration\_Other\_States: In this data set, we have data samples related to Frustration which is labeled as FR and other states labeled as OT (Concentration, Confusion, and Boredom).

Here we are trying to classify Frustration and other classes to observe the prediction performance of algorithms.

**Affect\_Change\_Model\_Data\_Set Folder:**

This folder consists of 4 files which include individual student affect state changes (Concentration to Bored, Concentration to Frustration:

2\_Clip\_Affect\_Data\_CB\_OT: In this data set, we have data samples related to affect change from Concentration to Boredom which is labeled as CB and other affect state changes labeled as OT (Concentration to Confusion, Concentration to Frustration and Concentration to Concentration).

2\_Clip\_Affect\_Data\_CC\_OT: In this data set, we have data samples related to affect change from Concentration to Concentration which is labeled as CC and other affect state changes labeled as OT (Concentration to Confusion, Concentration to Frustration and Concentration to Boredom).

2\_Clip\_Affect\_Data\_CCF\_OT: In this data set, we have data samples related to affect change from Concentration to Confusion which is labeled as CCF and other affect state changes labeled as OT (Concentration to Concentration, Concentration to Frustration and Concentration to Boredom).

2\_Clip\_Affect\_Data\_CF\_OT: In this data set, we have data samples related to affect change from Concentration to Frustration which is labeled as CF and other affect state changes labeled as OT (Concentration to Concentration, Concentration to Confusion and Concentration to Boredom).

The attributes are based on student interaction with the ASSISTments online learning platform.

Description about attributes can be found in below links and excel sheet provided:

<https://sites.google.com/site/assistmentsdata/how-to-interpret>

https://sites.google.com/site/assistmentstestbed/the-data/ali-doc-request/interpreting-your-data-v-1-0