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| **Experiment Number** | **Model** | **Result** | **Decision + Explanation** |
| **1** | **Conv3D** | **Getting an error of Negative dimension size** | **Added padding='same'** |
| **2** | **Conv3D** | **Less Accuracy** | **In Generator yield was not calculated for the data points which are left after full batches.**  **Updated the yield calculation for the remaining data points** |
| **3** | **Conv3D** | **Low model accuracy** | **Added few more layer and reduced the filter size** |
| **4** | **Conv3D** | **High train accuracy and low validation accuracy(overfiting)** | **Reduced layers and Added Drop out at Dense layer and last relu layer** |
| **5** | **Conv3D** | **Still low accuracy - .44** | **Added batch normalization at initial 3 relu layers** |
| **6** | **Conv3D** | **Accuracy: 0.53** | **Increased the number of Epochs from 10 to 15 and batch size from 15-20** |
| **7** | **Conv3D** | **Accuracy : 0.68** | **Again increased number of Epochs** |
| **8** | **Conv3D** | **Accuracy : 0.79** | **Removed dropout from last relu layer and added Batch Normalization.** |
| **10** | **Conv3D** | **Accuracy: 0.78** | **Tried other iterations as well but after .79 validation accuracy, only test accuracy was increasing but validation accuracy was not increasing much** |
| **11** | **Conv2D+RNN** | **Overfitting Accuracy: 0.23** | **Without dropout** |
| **12** | **Conv2D+RNN** | **Accuracy: 0.33** | **Reduced filter size to reduce overfitting** |
| **13** | **Conv2D+RNN** | **Accuracy: .54** | **Tried with some Dropout ,Still 2D model overfits** |
| **14** | **Conv2D+RNN** | **Accuracy: .65** | **Reduced the number of Epochs** |
| **Final Model** | **Conv3D** | **Accuracy : 0.79** | **Epochs 20, batch size 20** |

**So, we chose Conv3D the final model with test accuracy of 0.84 and validation accuracy as 0.79 at 16th Epoch.**