

Supplementary

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1 Results on Knot-tying and Needle-passing

Results on the tasks of knot-tying and needle-passing using kinematic data are provided in Table. 1.

Table 1. Results on knot-tying and needle-passing using kinematic data.

Method	Knot-tying			Needle-passing		
	Acc	Edit	F1@{10,25,50}	Acc	Edit	F1@{10,25,50}
SD-SDL	75.11	-	-	66.01	-	-
TCN*	78.82	84.79	88.5, 85.2, 74.4	74.22	81.22	84.0, 80.2, 68.2
RL (full)	77.52	88.81	91.0, 86.9, 75.9	73.62	82.32	84.8, 80.5, 66.9

2 Significance Test

Our gain of edit score is statistically significant. The p-values are 0.0013 and 0.0007 for video and kinematic data on suturing respectively.

3 More Examples

Five more prediction examples generated by the proposed method are provided. These examples are chosen randomly.

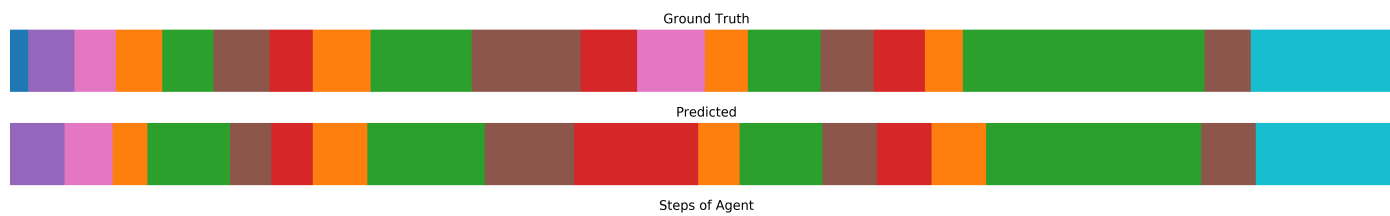


Fig. 3. Additional prediction example #3. Ditto.

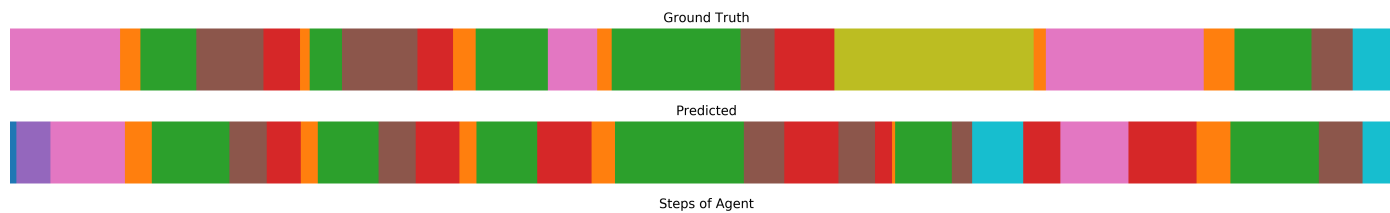


Fig. 4. Additional prediction example #4. Ditto.



Fig. 5. Additional prediction example #5. Ditto.