

Supplementary Materials

Table A Detailed results of the ring transfer task when using the stereo viewer in the novice group

No.	Indicator	Number of Ring											Success rate (%)	Time for transferring a ring	
		1	2	3	4	5	6	7	8	9	10	11		Mean	SD
1	Success / Fail	S	S	S	S	F	S	S	F	S	F	S	72.73	27.26	12.21
	Time	26.56	22.62	22.20	56.73	23.86	24.35	26.30	58.05	18.70	13.46	20.59			
2	Success / Fail	F	S	S	F	S	S	S	F	F	S	S	63.64	53.11	9.90
	Time	45.27	69.44	57.27	16.69	46.72	46.37	44.05	34.81	37.67	50.06	64.62			
3	Success / Fail	S	F	S	S	S	S	S	S	S	S	S	90.91	64.21	24.89
	Time	63.85	23.21	84.23	84.17	69.95	102.82	39.91	61.00	77.97	29.64	28.60			
4	Success / Fail	S	F	S	F	S	S	S	S	S	F	S	72.73	50.42	18.11
	Time	52.32	7.10	26.90	26.30	39.49	75.20	56.74	29.43	49.93	18.83	73.31			
5	Success / Fail	S	S	S	S	S	S	S	S	S	S	S	100.00	49.03	12.57
	Time	40.31	52.50	37.58	54.13	22.67	52.94	62.44	51.35	68.84	43.47	53.11			
6	Success / Fail	S	S	S	F	S	S	S	S	S	S	S	90.91	25.89	9.35
	Time	32.84	23.71	26.08	25.00	35.19	31.15	14.79	11.90	20.96	41.65	20.62			
7	Success / Fail	S	S	S	S	S	S	S	S	S	S	F	90.91	42.72	20.37
	Time	37.25	66.29	86.26	37.23	32.40	48.25	46.02	24.66	30.76	18.10	14.62			
8	Success / Fail	S	S	S	S	S	S	S	S	S	F	F	81.82	69.21	77.17
	Time	34.56	35.50	44.50	48.90	64.42	273.27	32.21	39.60	49.94	27.98	18.23			
9	Success / Fail	S	S	S	S	S	S	S	S	S	S	S	100.00	29.67	12.58
	Time	21.70	22.09	23.38	28.19	27.95	39.87	13.61	21.48	26.82	57.72	43.57			

10	Success / Fail	S	S	S	F	S	F	S	S	S	S	S	81.82	25.25	8.04
	Time	35.28	20.84	25.07	17.30	32.46	9.54	16.47	18.05	19.91	20.94	38.24			
11	Success / Fail	S	S	S	S	S	S	S	S	S	S	S	100.00	20.82	4.87
	Time	18.05	31.60	19.59	16.04	19.69	15.34	17.87	18.31	22.15	24.14	26.28			
12	Success / Fail	S	S	S	S	S	S	S	S	S	S	S	100.00	25.76	9.06
	Time	11.99	20.74	17.90	45.94	23.91	22.43	26.42	22.46	27.15	28.67	35.79			
13	Success / Fail	S	F	F	S	F	S	S	S	S	S	S	72.73	24.58	11.16
	Time	13.83	7.85	11.52	14.74	5.91	35.82	20.14	26.31	45.93	17.59	22.24			
14	Success / Fail	S	S	S	S	S	S	S	S	S	S	S	100.00	31.04	7.03
	Time	38.73	21.21	28.02	30.18	25.66	31.38	43.11	37.59	20.72	31.67	33.14			
15	Success / Fail	S	S	S	S	S	S	S	S	F	S	S	90.91	25.56	11.92
	Time	40.28	24.07	27.71	14.49	23.32	20.04	51.50	17.45	11.55	23.66	13.07			
16	Success / Fail	S	S	S	S	S	S	F	S	S	F	S	81.82	49.81	17.44
	Time	48.50	38.22	59.96	54.61	79.32	43.25	98.01	67.56	32.26	29.75	24.61			
17	Success / Fail	S	S	S	S	F	S	S	S	S	S	S	90.91	30.98	11.04
	Time	25.27	30.26	23.01	22.75	20.74	24.58	25.73	56.49	34.66	23.85	43.17			
18	Success / Fail	S	S	S	S	S	F	S	S	S	S	S	90.91	24.11	3.21
	Time	23.03	20.42	19.64	25.90	24.77	10.76	22.48	25.09	25.51	31.02	23.23			
19	Success / Fail	F	S	S	S	S	S	S	S	F	S	S	81.82	40.05	12.36
	Time	20.35	32.15	63.11	40.00	48.85	16.82	37.89	40.78	39.07	38.78	42.09			
20	Success / Fail	S	S	S	S	F	S	S	S	F	S	S	81.82	30.19	6.63
	Time	23.08	23.29	39.39	35.20	31.98	34.58	25.52	26.37	22.45	25.79	38.50			
21	Success / Fail	S	S	F	S	S	S	S	S	F	S	S	81.82	21.69	5.35
	Time	30.78	21.42	5.45	15.06	16.96	25.86	16.58	18.48	30.44	26.40	23.68			
22	Success / Fail	F	S	S	S	S	S	S	S	S	S	S	90.91	27.27	8.74

	Time	19.58	34.18	21.60	24.29	22.96	48.84	20.84	30.59	20.79	23.02	25.60			
23	Success / Fail	S	S	S	S	S	S	S	S	S	S	S	100.00	31.35	7.64
	Time	47.36	30.82	29.15	27.42	37.66	36.24	23.27	26.32	37.81	21.66	27.18			
24	Success / Fail	S	S	S	S	F	S	S	S	S	S	S	90.91	25.05	10.58
	Time	22.59	27.25	11.96	49.95	9.69	17.78	21.42	8..72	28.98	23.74	21.78			
25	Success / Fail	S	S	F	F	S	S	S	S	S	S	S	81.82	62.99	26.13
	Time	34.63	43.81	23.81	37.01	78.46	46.22	49.23	84.98	117.51	52.45	59.60			
26	Success / Fail	S	S	S	S	S	S	S	S	S	S	S	100.00	31.35	12.57
	Time	34.57	34.18	50.88	57.91	27.50	22.00	17.85	22.07	28.04	27.07	22.74			
27	Success / Fail	F	S	S	S	S	F	S	S	F	S	S	72.73	25.19	7.65
	Time	17.93	20.54	24.45	36.00	19.37	40.22	19.61	25.87	14.76	37.62	18.06			
28	Success / Fail	S	S	S	S	S	S	S	S	S	S	S	100.00	29.63	12.16
	Time	30.62	16.76	19.23	22.64	36.39	23.17	26.75	26.10	59.93	39.83	24.56			
29	Success / Fail	F	S	F	S	S	S	S	S	S	S	S	81.82	43.69	26.25
	Time	22.81	31.50	15.03	27.14	26.22	44.18	54.65	43.63	27.51	108.57	29.77			
30	Success / Fail	S	S	S	S	S	S	S	S	S	S	S	100.00	30.00	13.05
	Time	25.70	57.38	24.85	52.66	22.67	26.83	17.55	34.01	23.76	21.45	23.14			

Table B Detailed results of the ring transfer task when using the virtual vision platform in the novice group

No.	Indicator	Number of Ring											Success rate (%)	Time for transferring a ring	
		1	2	3	4	5	6	7	8	9	10	11		Mean	SD
1	Success / Fail	S	F	S	S	S	F	S	S	S	S	S	81.82	36.58	17.92
	Time	59.68	25.80	14.91	54.30	19.11	34.67	20.61	60.32	41.34	27.82	31.13			
2	Success / Fail	S	S	S	S	S	S	S	S	F	F	F	72.73	60.25	17.35
	Time	42.36	70.53	71.78	41.68	81.99	66.56	70.90	36.19	25.99	12.46	71.08			
3	Success / Fail	S	S	F	S	S	F	S	S	F	S	S	72.73	44.27	12.15
	Time	34.09	36.19	31.20	44.68	28.56	49.00	61.48	39.97	27.26	61.27	47.93			
4	Success / Fail	S	F	S	S	S	S	S	S	S	S	S	90.91	41.93	19.78
	Time	44.66	55.03	33.39	41.80	22.48	32.50	32.07	40.53	51.77	27.49	92.62			
5	Success / Fail	S	S	S	S	S	S	S	S	F	S	S	90.91	60.79	19.13
	Time	39.70	69.33	34.79	45.94	59.88	51.15	99.16	77.09	90.50	66.70	64.19			
6	Success / Fail	S	S	F	S	S	S	S	S	S	S	S	90.91	38.55	17.24
	Time	31.54	24.48	31.95	23.50	44.76	19.92	31.10	64.74	57.24	25.85	62.32			
7	Success / Fail	S	F	S	S	S	S	F	S	S	S	S	81.82	41.50	6.16
	Time	35.98	53.55	46.25	41.78	46.91	29.33	17.50	49.15	44.34	39.24	40.48			
8	Success / Fail	F	S	S	S	S	S	S	S	F	S	S	81.82	34.40	13.51
	Time	69.44	29.63	27.15	64.37	31.35	29.29	16.43	41.29	7.52	28.75	41.34			
9	Success / Fail	S	S	S	S	S	S	S	S	S	F	S	90.91	28.77	6.44
	Time	23.09	28.49	25.35	41.58	23.66	32.24	22.75	22.65	34.04	21.30	33.82			
10	Success / Fail	S	S	S	S	S	S	F	F	S	S	F	72.73	36.44	7.47
	Time	28.34	25.23	43.50	35.90	44.04	35.55	17.65	74.22	33.43	45.50	35.12			
11	Success / Fail	S	S	S	S	S	S	S	S	S	S	S	100.00	28.76	12.73

	Time	24.93	15.50	37.40	27.12	15.78	40.60	18.52	18.50	57.21	33.58	27.24			
12	Success / Fail	S	F	S	S	S	F	S	S	S	S	S	81.82	39.21	13.61
	Time	24.96	28.51	30.41	37.30	25.47	31.91	44.20	60.70	35.01	61.02	33.83			
13	Success / Fail	S	S	S	F	S	S	F	S	S	S	S	81.82	32.09	13.69
	Time	34.65	64.99	33.84	19.65	19.52	26.13	36.93	33.19	32.56	19.98	23.92			
14	Success / Fail	S	F	F	S	S	S	S	S	S	S	S	81.82	28.25	8.01
	Time	16.97	25.62	18.10	37.81	16.33	29.93	26.30	34.48	25.45	38.17	28.80			
15	Success / Fail	S	S	S	S	S	S	S	S	S	F	S	90.91	33.88	14.46
	Time	16.84	17.47	33.22	37.32	45.10	29.80	29.05	31.13	31.34	14.10	67.48			
16	Success / Fail	S	S	S	S	S	S	S	S	S	F	S	90.91	58.42	9.45
	Time	52.73	46.79	50.67	55.85	74.59	61.93	67.34	66.54	61.22	74.78	46.49			
17	Success / Fail	F	S	S	S	F	S	S	S	S	S	S	81.82	33.01	7.81
	Time	45.29	33.11	29.67	26.25	35.98	39.79	43.36	25.39	27.01	45.29	27.20			
18	Success / Fail	S	S	S	S	S	S	S	S	S	S	F	90.91	32.89	6.68
	Time	38.72	36.75	27.24	40.18	27.38	35.53	19.64	36.67	28.87	37.87	13.50			
19	Success / Fail	S	F	S	S	S	S	S	S	S	S	S	90.91	32.15	9.00
	Time	38.28	15.57	34.38	33.82	45.18	20.50	15.87	32.35	27.52	41.71	31.89			
20	Success / Fail	S	S	S	S	S	S	S	S	F	S	F	81.82	53.05	13.04
	Time	54.03	50.80	47.42	67.70	43.91	76.42	33.44	45.08	84.62	58.62	14.74			
21	Success / Fail	S	S	S	S	S	F	F	S	S	S	S	81.82	28.69	6.13
	Time	28.30	25.96	25.65	37.82	26.81	6.14	25.19	30.38	22.22	22.03	39.05			
22	Success / Fail	F	S	S	S	S	S	F	S	F	S	S	72.73	46.06	18.04
	Time	34.57	44.56	34.95	21.98	51.24	33.32	43.68	43.78	19.05	57.18	81.48			
23	Success / Fail	S	S	S	S	S	S	S	S	S	S	S	100.00	32.65	19.17
	Time	31.10	39.57	31.43	21.36	32.41	20.83	19.79	25.98	27.79	87.41	21.50			

24	Success / Fail	S	S	S	S	S	S	S	S	S	S	S	100.00	27.20	10.92
	Time	42.00	15.74	20.55	30.03	49.61	28.35	19.54	19.42	23.25	33.82	16.85			
25	Success / Fail	S	S	S	S	S	S	S	S	S	S	S	100.00	77.81	21.26
	Time	52.35	56.38	111.65	64.28	65.75	88.26	92.27	68.04	69.06	72.35	115.48			
26	Success / Fail	S	S	S	S	S	S	S	S	S	S	S	100.00	43.96	12.01
	Time	65.12	48.47	33.97	30.57	47.03	37.7	64.75	43.07	33.38	45.47	33.98			
27	Success / Fail	F	S	S	S	S	S	S	S	S	S	S	90.91	19.96	8.77
	Time	5.67	14.93	13.67	22.3	36.71	34.69	17.05	18.63	14.87	13.73	12.98			
28	Success / Fail	S	S	S	S	S	S	S	S	S	S	S	100.00	33.78	8.65
	Time	23.74	25.18	25.07	41.49	51.3	41.26	29.92	27.86	32.29	34.99	38.46			
29	Success / Fail	S	S	S	S	S	F	S	S	S	S	S	90.91	43.64	16.15
	Time	59.84	25.96	58.31	28.32	31.49	10.98	75.33	31.61	40.4	45.14	40.03			
30	Success / Fail	S	S	F	S	S	S	S	S	S	S	S	90.91	49.20	18.16
	Time	43.01	44.41	21.02	47.29	35.13	38.91	98.17	51.12	35.50	51.58	46.83			

Table C Detailed results of the ring transfer task when using the stereo viewer in the surgeon group

No.	Indicator	Number of Ring											Success rate (%)	Time for transferring a ring	
		1	2	3	4	5	6	7	8	9	10	11		Mean	SD
1	Success / Fail	S	S	S	S	S	S	F	S	S	S	F	81.82	23.21	7.21
	Time	26.22	21.92	17.69	22.41	25.46	40.06	16.06	20.94	15.43	18.78	6.97			
2	Success / Fail	S	S	S	S	S	S	S	S	S	S	S	100.00	23.93	13.82
	Time	14.89	26.18	13.24	61.13	21.87	19.70	16.53	12.26	17.94	31.80	27.74			
3	Success / Fail	S	S	S	S	S	S	S	S	S	F	S	90.91	31.05	11.57
	Time	32.13	33.46	25.32	24.66	25.29	24.68	17.78	33.75	60.43	12.14	33.02			
4	Success / Fail	S	S	S	F	F	S	S	F	S	S	S	72.73	18.82	4.07
	Time	20.40	19.48	14.53	8.59	20.22	26.93	20.09	16.46	16.91	13.98	18.23			
5	Success / Fail	S	F	F	S	S	S	S	S	S	S	S	81.82	27.66	14.08
	Time	62.99	19.07	21.81	24.34	20.49	20.87	16.80	29.91	23.41	18.93	31.22			
6	Success / Fail	S	F	S	S	S	S	S	S	S	S	S	90.91	27.32	7.12
	Time	36.74	30.59	28.83	31.95	27.94	24.59	21.79	20.02	21.52	40.03	19.74			
7	Success / Fail	S	S	S	S	S	S	S	F	F	S	S	81.82	40.49	24.40
	Time	104.49	34.59	30.04	30.59	37.94	28.90	40.65	12.81	18.68	28.22	29.00			
8	Success / Fail	S	S	S	S	S	S	S	S	F	S	S	90.91	25.88	4.42
	Time	23.18	36.77	20.40	27.50	25.30	24.42	23.75	24.13	22.74	24.96	28.41			
9	Success / Fail	F	F	S	S	F	F	S	S	S	F	F	45.45	34.68	10.46
	Time	18.73	31.09	47.89	28.32	14.57	36.67	33.06	21.90	42.23	20.94	34.35			
10	Success / Fail	S	S	S	S	S	S	S	S	S	S	S	100.00	18.75	3.12
	Time	20.95	18.52	15.91	17.10	19.31	23.19	14.97	23.67	16.56	20.97	15.05			
11	Success / Fail	S	S	S	S	S	S	S	F	S	S	S	90.91	20.27	4.90

	Time	16.91	18.69	27.16	16.64	17.87	19.98	14.14	8.51	30.16	21.04	20.09			
12	Success / Fail	S	S	S	S	S	S	S	S	S	S	S	100.00	21.41	3.95
	Time	24.93	27.41	19.06	18.60	25.67	16.59	24.01	19.94	15.59	19.68	24.07			
13	Success / Fail	S	S	S	S	S	S	S	S	S	S	S	100.00	21.27	4.66
	Time	22.98	29.61	13.46	17.97	27.36	17.31	22.70	22.70	20.43	17.46	21.97			
14	Success / Fail	F	F	S	S	S	S	S	S	F	S	S	72.73	46.86	26.32
	Time	43.59	31.07	58.10	103.29	41.69	22.35	56.26	28.79	35.12	26.35	38.07			
15	Success / Fail	S	S	S	F	S	S	S	S	S	S	S	90.91	24.45	8.49
	Time	19.49	34.92	13.17	10.87	23.89	40.44	26.62	13.37	23.87	22.99	25.72			
16	Success / Fail	F	S	S	S	F	S	F	S	S	S	S	72.73	18.32	3.97
	Time	16.49	14.18	11.81	20.86	14.48	19.50	19.10	20.67	17.98	24.34	17.18			
17	Success / Fail	S	S	S	S	S	S	S	S	S	S	S	100.00	36.48	15.25
	Time	43.93	32.02	27.04	44.76	75.86	35.51	34.04	18.07	34.30	23.30	32.48			
18	Success / Fail	S	S	S	S	S	F	S	S	F	S	S	81.82	32.85	16.82
	Time	55.90	26.88	23.77	26.34	15.46	12.17	17.63	54.94	1.70	21.45	53.31			
19	Success / Fail	S	S	S	S	S	S	S	S	S	S	F	90.91	21.90	4.20
	Time	20.96	23.20	24.65	26.61	16.48	15.88	22.18	27.30	17.01	24.73	6.93			
20	Success / Fail	S	S	S	S	S	S	S	S	S	S	S	100.00	15.88	3.95
	Time	15.40	10.94	14.07	12.93	11.74	15.35	23.66	13.00	19.53	19.14	18.96			
21	Success / Fail	S	S	S	S	S	S	S	S	S	S	S	100.00	25.15	9.77
	Time	25.62	21.00	48.43	29.74	36.48	17.54	19.58	17.30	16.36	23.26	21.29			
22	Success / Fail	S	S	S	S	S	S	S	S	S	S	S	100.00	15.86	3.20
	Time	13.39	17.31	15.47	13.20	11.04	14.20	17.50	18.29	21.43	13.06	19.57			
23	Success / Fail	S	S	S	S	S	S	S	S	S	S	S	100.00	18.24	4.99
	Time	20.90	15.42	11.14	22.74	16.77	11.32	20.50	13.59	22.15	19.54	26.59			

Table D Detailed results of the ring transfer task when using the virtual vision platform in the surgeon group

No.	Indicator	Number of Ring											Success rate (%)	Time for transferring a ring	
		1	2	3	4	5	6	7	8	9	10	11		Mean	SD
1	Success / Fail	S	S	S	S	F	S	S	S	S	S	S	90.91	26.84	12.74
	Time	54.22	40.12	20.62	13.99	14.65	23.19	15.91	36.77	19.76	21.86	21.94			
2	Success / Fail	S	S	S	S	S	S	S	S	S	S	S	100.00	26.94	10.08
	Time	25.82	51.37	38.14	31.27	23.09	19.50	15.56	24.84	21.30	23.99	21.45			
3	Success / Fail	S	S	S	S	S	S	S	S	S	S	F	90.91	38.95	10.71
	Time	51.44	38.70	60.67	25.72	44.51	38.08	34.88	29.30	29.89	36.32	36.27			
4	Success / Fail	S	S	S	S	F	F	S	F	F	S	F	54.55	33.19	12.89
	Time	17.06	19.58	40.55	47.35	12.10	19.84	30.34	117.38	33.83	44.26	22.23			
5	Success / Fail	S	S	S	S	S	S	S	S	S	S	S	100.00	26.69	8.17
	Time	29.76	35.56	20.86	41.18	22.96	31.93	33.99	18.13	21.84	21.65	15.78			
6	Success / Fail	S	S	S	S	S	S	S	S	F	S	S	90.91	35.53	11.58
	Time	30.21	51.14	53.54	25.58	20.72	38.95	31.00	45.09	24.67	36.50	22.59			
7	Success / Fail	F	S	S	S	S	S	S	S	F	F	S	72.73	44.12	15.80
	Time	59.37	42.23	38.03	43.35	27.16	27.30	75.78	43.43	39.35	58.80	55.64			
8	Success / Fail	S	S	S	S	S	S	S	S	S	S	S	100.00	39.54	4.70
	Time	31.84	42.63	36.02	37.32	40.82	37.74	36.00	44.42	38.50	46.39	44.57			
9	Success / Fail	F	S	F	F	F	S	S	S	S	S	S	63.64	35.13	10.33
	Time	18.41	35.12	9.35	26.38	81.88	34.51	35.63	53.87	37.34	30.50	18.94			
10	Success / Fail	S	S	S	S	S	S	F	S	S	S	S	90.91	20.59	8.80
	Time	16.54	17.96	16.86	17.32	12.52	28.36	8.56	12.19	22.79	19.60	41.75			
11	Success / Fail	S	S	S	S	S	S	F	S	S	S	S	90.91	22.49	6.03

	Time	23.41	20.38	24.67	28.23	17.18	14.32	15.88	14.88	31.07	20.81	29.90			
12	Success / Fail	S	S	S	S	S	S	S	S	S	S	S	100.00	28.74	10.54
	Time	34.04	21.75	17.19	22.55	38.62	33.08	18.68	30.78	17.14	31.18	51.10			
13	Success / Fail	S	S	S	F	S	S	S	S	S	S	S	90.91	20.41	2.88
	Time	19.27	20.46	15.87	6.96	26.33	19.08	19.65	20.55	18.90	24.02	19.98			
14	Success / Fail	S	S	S	S	S	S	S	S	S	S	S	100.00	35.12	7.86
	Time	48.86	35.24	27.26	42.14	35.37	31.86	20.09	43.02	35.87	30.96	35.69			
15	Success / Fail	S	S	S	S	S	S	S	S	S	S	S	100.00	27.95	12.88
	Time	28.19	31.21	18.44	20.67	18.39	58.79	18.19	25.69	20.39	22.85	44.61			
16	Success / Fail	S	S	S	S	S	S	S	S	S	S	F	90.91	23.88	5.28
	Time	13.57	26.01	20.87	30.88	26.67	26.34	16.65	26.30	24.41	27.06	39.82			
17	Success / Fail	S	F	S	F	S	S	F	S	S	S	S	72.73	29.89	15.11
	Time	20.18	35.79	65.36	26.30	25.42	29.54	11.13	24.86	30.96	26.68	16.15			
18	Success / Fail	S	F	S	S	F	S	S	S	S	S	S	81.82	25.80	10.58
	Time	31.30	31.39	17.23	22.34	13.09	50.49	19.33	18.90	30.84	18.98	22.78			
19	Success / Fail	F	S	S	S	F	S	S	S	S	S	S	81.82	31.59	14.98
	Time	10.88	20.73	20.18	29.30	39.74	32.10	26.05	57.83	55.62	25.19	17.27			
20	Success / Fail	S	S	S	S	S	S	S	S	F	S	F	81.82	20.65	9.58
	Time	15.91	37.06	11.27	16.87	18.40	14.11	19.28	15.90	7.43	37.01	12.38			
21	Success / Fail	S	S	S	S	S	S	S	S	S	S	S	100.00	23.54	6.19
	Time	24.59	28.48	18.83	17.34	36.69	21.06	30.00	25.19	18.05	21.42	17.26			
22	Success / Fail	S	S	S	S	S	F	S	F	S	S	S	81.82	33.00	10.16
	Time	22.47	34.62	28.43	30.14	39.78	8.79	22.58	25.64	55.30	28.09	35.58			
23	Success / Fail	S	S	S	S	S	S	S	S	S	S	S	100.00	22.08	4.02
	Time	15.98	29.94	25.43	26.96	21.34	21.28	22.31	21.73	18.82	18.37	20.72			

Table E Detailed results of the time for performing the scenarios when using the stereo viewer (DVC: DICOM viewer check, VSC: vital sign check)

Participant No.	Novice				Surgeon			
	DVC	VSC	Mean	SD	DVC	VSC	Mean	SD
1	33.10	25.20	29.15	5.59	27.92	18.37	23.15	6.75
2	31.78	30.70	31.24	0.76	26.82	16.82	21.82	7.07
3	26.77	16.58	21.68	7.21	33.46	17.35	25.41	11.39
4	31.29	18.03	24.66	9.38	29.38	18.40	23.89	7.76
5	27.00	16.43	21.72	7.47	28.71	16.05	22.38	8.95
6	26.42	15.79	21.11	7.52	29.58	17.67	23.63	8.42
7	28.12	15.52	21.82	8.91	28.30	20.59	24.45	5.45
8	29.82	15.60	22.71	10.06	27.29	17.57	22.43	6.87
9	29.87	17.10	23.49	9.03	26.74	17.46	22.10	6.56
10	28.50	19.60	24.05	6.29	27.90	16.51	22.21	8.05
11	25.59	15.90	20.75	6.85	29.93	17.67	23.80	8.67
12	28.81	17.78	23.30	7.80	27.46	22.78	25.12	3.31
13	27.73	18.48	23.11	6.54	26.10	17.37	21.74	6.17
14	29.34	16.71	23.03	8.93	28.06	17.44	22.75	7.51
15	28.75	17.63	23.19	7.86	25.81	18.06	21.94	5.48
16	27.59	17.06	22.33	7.45	27.59	17.09	22.34	7.42
17	28.01	18.42	23.22	6.78	25.67	17.17	21.42	6.01
18	25.31	16.67	20.99	6.11	28.20	16.07	22.14	8.58
19	27.83	16.23	22.03	8.20	27.11	17.09	22.10	7.09
20	21.89	15.08	18.49	4.82	26.10	18.08	22.09	5.67
21	27.10	16.88	21.99	7.23	28.79	17.54	23.17	7.95

22	28.00	17.62	22.81	7.34	26.05	17.40	21.73	6.12
23	29.43	18.26	23.85	7.90	27.03	16.69	21.86	7.31
24	29.97	16.14	23.06	9.78				
25	27.30	15.98	21.64	8.00				
26	31.04	17.66	24.35	9.46				
27	26.26	17.01	21.64	6.54				
28	26.92	18.66	22.79	5.84				
29	26.94	17.50	22.22	6.68				
30	27.95	17.39	22.67	7.47				

Table F Detailed results of the time for performing the scenarios when using the virtual vision platform (DVC: DICOM viewer check, VSC: vital sign check)

Participant No.	Novice				Surgeon			
	DVC	VSC	Mean	SD	DVC	VSC	Mean	SD
1	36.87	16.93	26.90	14.10	26.86	18.03	22.45	6.24
2	39.70	18.99	29.35	14.64	26.23	17.39	21.81	6.25
3	27.89	17.00	22.45	7.70	27.03	17.82	22.43	6.51
4	34.39	17.99	26.19	11.60	28.50	17.40	22.95	7.85
5	33.60	16.16	24.88	12.33	35.61	15.56	25.59	14.18
6	27.70	17.37	22.54	7.30	30.38	18.26	24.32	8.57
7	37.12	17.61	27.37	13.80	29.00	17.29	23.15	8.28
8	27.08	19.68	23.38	5.23	29.08	17.94	23.51	7.88
9	30.09	18.61	24.35	8.12	29.62	17.75	23.69	8.39
10	29.26	18.68	23.97	7.48	26.08	17.21	21.65	6.27
11	27.80	16.60	22.20	7.92	27.95	16.80	22.38	7.88
12	28.91	17.80	23.36	7.86	27.42	18.17	22.80	6.54
13	28.10	17.92	23.01	7.20	27.53	15.30	21.42	8.65
14	30.39	16.92	23.66	9.52	28.02	16.78	22.40	7.95
15	29.11	19.07	24.09	7.10	25.16	17.22	21.19	5.61
16	28.87	18.47	23.67	7.35	28.05	17.15	22.60	7.71
17	30.15	18.48	24.32	8.25	28.14	17.56	22.85	7.48
18	30.06	16.82	23.44	9.36	31.01	16.81	23.91	10.04
19	26.35	15.87	21.11	7.41	27.91	16.83	22.37	7.83
20	28.82	18.45	23.64	7.33	29.03	17.01	23.02	8.50
21	26.54	17.15	21.85	6.64	27.70	18.40	23.05	6.58

22	30.26	16.65	23.46	9.62	27.70	17.93	22.82	6.91
23	28.04	17.07	22.56	7.76	26.01	18.11	22.06	5.59
24	28.58	16.66	22.62	8.43				
25	29.08	15.65	22.37	9.50				
26	29.07	19.97	24.52	6.43				
27	25.19	16.96	21.08	5.82				
28	27.85	17.51	22.68	7.31				
29	27.74	17.01	22.38	7.59				
30	27.55	18.37	22.96	6.49				