

Attachment 1: Comprehensive study results

conceptual grouping	Specific ECG interpretation skill →	I. Basic score				II. Relative score				III. Conservative score			
		full model		final model		full model		final model		full model		final model	
	↓ Included variables (predictors) (intercept)	beta	p-value	beta	p-value	beta	p-value	beta	p-value	beta	p-value	beta	p-value
		-3.35	.79	12.79	< .05	-28.98	.06	-13.79	.06	26.24	.04	24.36	.01
Learning intervention	group [INT]	0.56	.76			-0.02	.99			-1.15	.53		
participant characteristics/obj. characteristics	age	0.47	.30	0.48	.01	0.07	.90			-0.70	.13	-0.55	.19
	sex [M]	1.18	.54			1.22	.60			3.06	.10	3.69	.02
	years in education	-0.27	.61			0.43	.51	0.76	.01	0.98	.07	0.83	.08
	prior medical vocational training [yes]	-0.01	.99			1.92	.53			4.82	.06	3.03	.17
	subject-related semester	-0.19	.76			-0.29	.70			-0.76	.24	-0.86	.13
	number of prior ECG courses	-2.26	.10			-4.59	.007	-3.90	.008	-1.66	.22		
	number of practical year trimesters	1.22	.63			3.85	.22			6.13	.01	6.47	.004
	cardiological clerkship [yes]	-1.62	.47			-1.90	.49			-1.39	.53		
subj. learning characteristics	number of prior ECG interpretations	< 0.01	.40			0.00	.25	< 0.01	.10	0.00	.75		
	interest in ECGs	0.05	.56			0.04	.67			0.11	.13	0.13	< .05
	confidence in personal learning strategy	0.10	.30			0.12	.30			-0.12	.21	-0.13	.10
	accessibility of material	0.12	.30			0.14	.30			0.14	.22		
	flow state	0.08	.29			0.08	.33			-0.04	.55		
participant involvement	self-rated benefit of training session	-0.01	.91			0.00	.97			-0.04	.73		
	restedness (pre)	-0.12	< .05	-0.08	.03	-0.16	.03	-0.11	.01	-0.08	.17	-0.05	.17
	restedness (mid)	0.12	.11			0.13	.14			0.05	.54		
	restedness (post)	-0.07	.24			-0.03	.65			-0.01	.90		
	motivation (pre)	0.06	.26			0.12	.07	0.12	.02	0.07	.18	0.07	.11
	motivation (mid)	-0.08	.30			-0.17	.08	-0.17	.03	-0.16	.04	-0.15	.03
	motivation (post)	0.10	.13	0.06	.04	0.10	.24	0.14	.03	0.04	.50	0.07	.22
learning content	pre-test	0.20	.04	0.25	.002	0.24	.02	0.28	.002	0.46	.0002	0.49	.009*10⁻³
	clinical case 1	0.04	.52			-0.01	.89			0.97	.004	0.95	.002
	clinical case 2	0.11	.21			0.17	.06	0.15	.05	0.22	.02	0.23	.01
	clinical case 3	0.15	.11	0.20	.004	0.25	.02	0.30	.001	0.23	.04	0.22	.03
	clinical case 4	0.18	.04	0.16	.03	0.24	.03	0.20	.02	0.28	.005	0.24	.008
	Summary statistics:	$R^2 = .56, R^2_{adj} = .37, F(26,63) = 3.05, p < .02*10^{-2}, R^2 = .47, R^2_{adj} = .43, F(12,83) = 12.09, p < .01*10^{-7}$				$R^2 = .66, R^2_{adj} = .52, F(26,63) = 4.73, p < .02*10^{-5}, R^2 = .62, R^2_{adj} = .57, F(11,78) = 11.78, p < .01*10^{-10}$				$R^2 = .65, R^2_{adj} = .50, F(26,63) = 4.42, p < .007*10^{-4}, R^2 = .62, R^2_{adj} = .53, F(17,72) = 6.91, p < .02*10^{-7}$			

Note: [] denotes reference group; calculations of scores (cf. statistical analyses section) for pre-test and clinical cases 1-4 corresponded model-wise to the specific (BS, RS, CS) outcomes regressed upon; model selection stepwise backwards via Akaike Information Criterion (AIC); significant predictors are bold