

Interactive Communications Theory Study Linkages

Theory									
Studies	Course	Theme	Macro: Treatment Variables			Micro: Analysis	Learning Measures		
			Collaboration	Vicarious Learning	Collaboration script		Deep/Reflection questions	Instructional explanation	Prompted self-explanation*

Studies	Course	Theme	Collaboration	Vicarious Learning	Collaboration script	Deep/Reflection questions	Instructional explanation	Prompted self-explanation*	Tutoring feedback*	Error correction support*	Knowledge component analysis	Learning event analysis	Normal post-test	Transfer	Long-term retention	Accelerated future learning	Completed?
			v	v	v	v	b	b	b	b	b	✓+	✓+	✓	✓	✓	✓
Observe	Physics	Clb	v	v					b			✓+	✓+	✓	✓	✓	✓
Elab dialog	Physics	Clb	v	v										✓	✓		
Interaction	Physics	Clb	v	b		b	b					✓+		✓			
Collab script	Algebra	Clb	v	v	b		b					✓+	✓+	✓	✓+		✓
Peer tutor 1	Algebra	Clb	v	v	b		b					✓+		✓	✓		✓
Peer tutor 2	Algebra	Clb	v	v	b		b					✓+		✓	✓		✓
Chem collab	Chem	Clb	v	v										✓	✓		N
Deep question	Physics	Dqr		b	v	b	b					✓+			✓		Y
Reflect dialog	Physics	Dqr			v		b					✓+		✓	✓	✓	Y
Post reflection	Physics	Dqr			v		v					✓+		✓	✓	✓	Y
Extend reflect	Physics	Dqr			v		v					✓+		✓	✓	✓	N
SE Prompts	Physics	Dqr			v	b	b					✓+		✓			N
Culture	French	Dqr			v							✓		✓			Y
Uncertainty	Physics	Tve			b		b	v					✓				Y
Self-correct	ESL	Tve							b	v			✓				N
Generate	Physics	Tve				v	v	b				✓+	✓+	✓	✓	✓	N
Elab explain	Geometry	Tve					v	b				✓+	✓+	✓	✓	✓	N
Help-seeking	Geometry	Tve						v				✓+		✓	✓	✓	Y

Key

Theme:

V&M = Visualization & multi-media sources
E&E = Examples & explanations

Macro: Treatment Variables

v = varied between control and treatment conditions
b = present in both control and treatment condition.

Micro: Analysis

✓ = project builds on existing analysis
✓+ = project involves new or innovative analysis

Learning Measures

✓ = project includes measure
✓+ = project includes measure and innovative research on measure

