

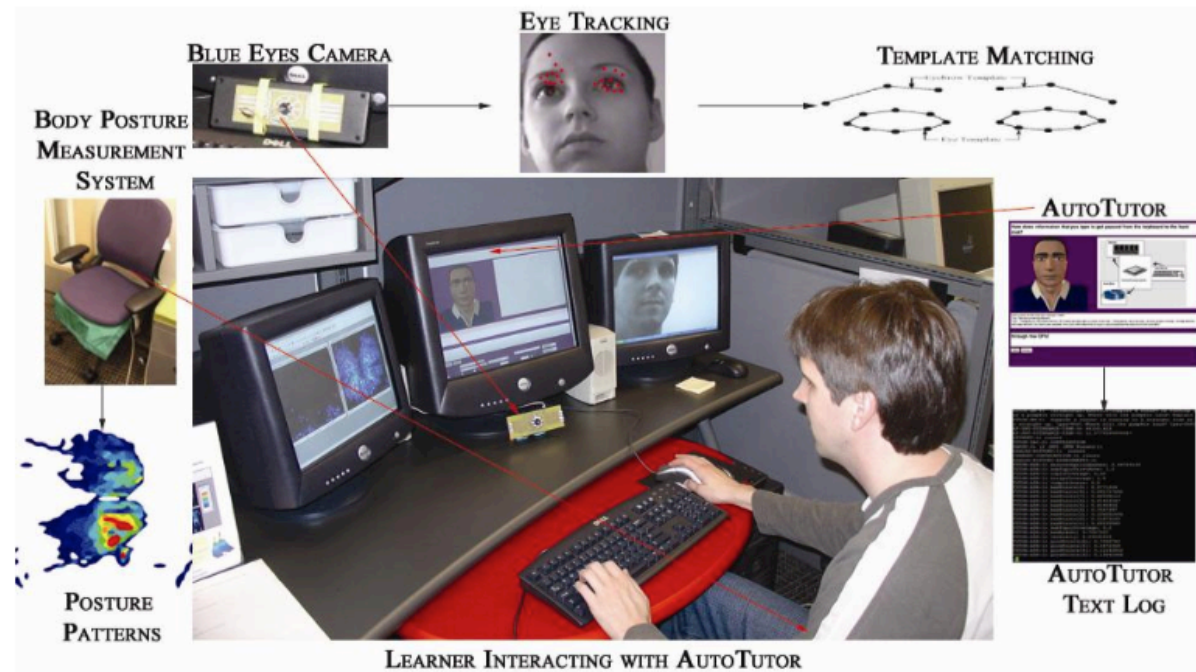
# A Time For Emoting: When Affect-Sensitivity Is and Isn't Effective at Promoting Deep Learning

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Group A

# Affect-Sensitivity at promoting Deep Learning

- Affect-Sensitive AutoTutor
- Experiment:
  - Hypothesis: “compared to the non-affective tutor, learning gains should be superior for the affect-sensitive version of AutoTutor.”
  - Methodology:
    - 84 US university students
    - Pretest - > Session 1 -> Session 2 - >Posttest (3 topics)
- Results & Analysis



**Fig. 1.** Monitoring affective states during interactions with AutoTutor

**Table 1.** Descriptive statistics on proportional learning gains.

Session	Version	Tutor [Main Effect]		Tutor × Prior [Interaction]		Knowledge	
		<i>M</i>	<i>SD</i>	Low <i>M</i>	<i>SD</i>	High <i>M</i>	<i>SD</i>
Session 1	Regular	.389	.320	.346	.343	.441	.289
	Supportive	.249	.420	.340	.353	.114	.481
Session 2	Regular	.377	.328	.382	.247	.370	.413
	Supportive	.407	.386	.549	.221	.198	.480
Transfer	Regular	.001	.439	.095	.267	-.113	.572
	Supportive	.092	.387	.244	.244	-.130	.454

**Table 1.** Descriptive statistics on proportional learning gains.

Session	Version	Tutor [Main Effect]		Tutor × Prior Knowledge [Interaction]		Prior Knowledge High	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
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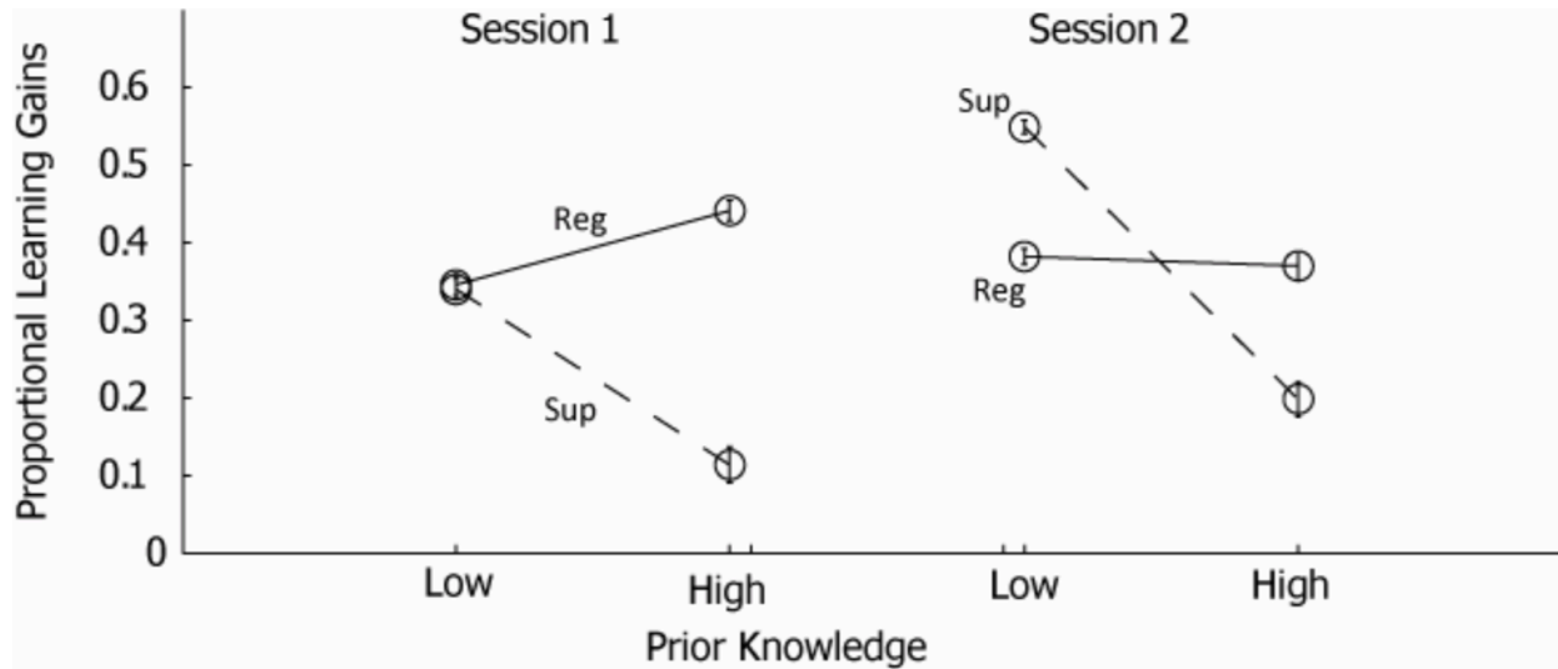
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# Meta - Review

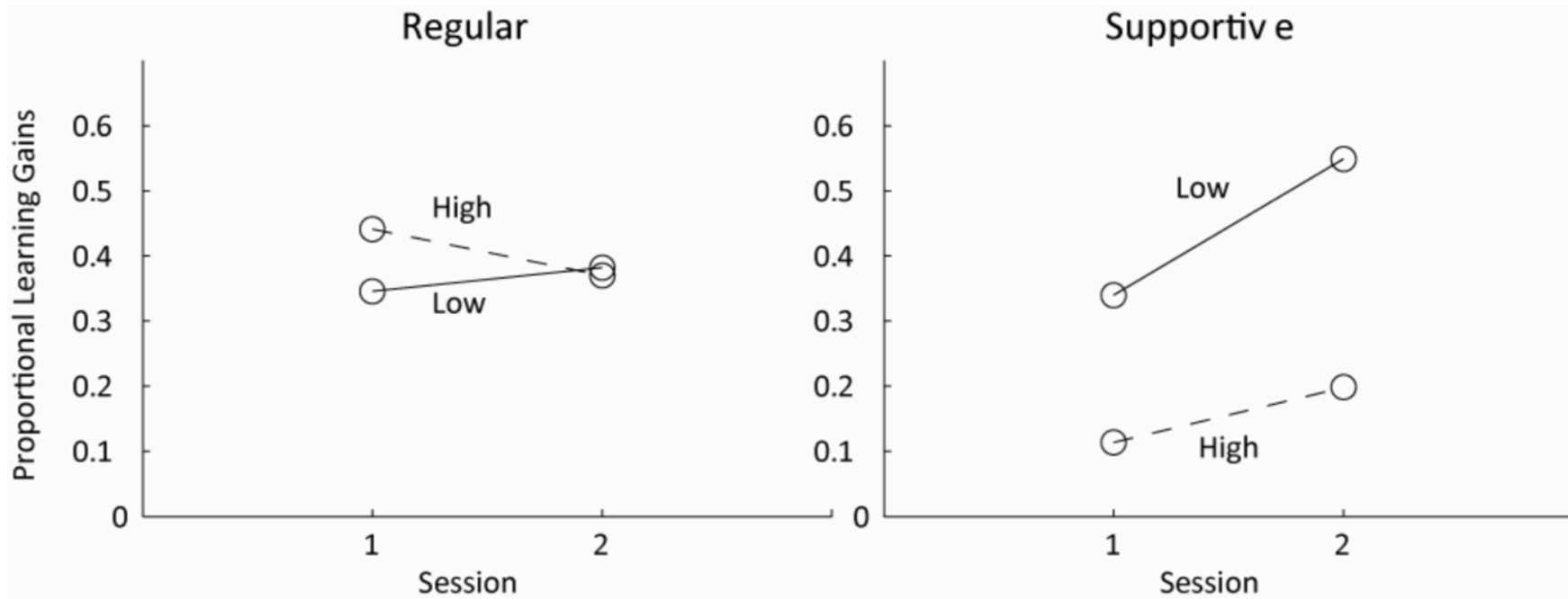
Weak-Accept with improvements:

- Good Introduction to Affective Autotutor
- Good Introduction to the topic in general
- Needs introduction to statistics/significance
- Graph style is confusing
- Important results on tables not marked
- Needs better justification of the method
- Minor style issues



**Fig. 3.** Interactions between prior knowledge and tutor type





**Fig. 4.** Trends in learning gains across sessions

## Overall Comments

- Two sessions on different topics might seem to be interpreted as one learning experience.
- Generalization to deep learning and emotions in learning overall.
- Generalization to other domains of learning
- No justification for sample size.
- No justification for how they divide the groups.
- Sample participants sex is not reported