

TED-Ed Predicts Metacognition Improvements

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TED-Ed Lesson on Signal Detection Theory: <http://ed.ted.com/on/bxq3ZEOq>

Poster: <http://personal.denison.edu/~matthewsn/apsteaching2016>



Goal

Improve student learning and engagement by flipping the classroom with TED-Ed Lessons.



Brown, Roediger III & McDaniel "Make It Stick"



Dr. Susan Ambrose 7 Research-Based Teaching Principles



Dr. Dorothy Williams Metacognition Rubric

Flipping the Classroom with Video Lectures



Introduction To Factor Analysis

LESSON CREATED BY NESTOR MATTHEWS USING TED-Ed
VIDEO FROM Nestor Matthews YOUTUBE CHANNEL

Let's Begin...

Introduction to Factor Analysis

Introduction to Factor Analysis



Watch

Think

Dig Deeper



Last Edited 9/03/2015

Psychometric Functions Understanding Thresholds by Nestor...

17 Students
0 Discussions

Share Edit Delete

Review Student Work



Last Edited 9/02/2015

Signal Detection Theory Lecture by Nestor Matthews

25 Students
0 Discussions

Share Edit Delete

Review Student Work

Results

PSYC 340

Sensation & Perception

	TED-Ed & Class Participation	TED-Ed & Writing Grades	TED-Ed & Final Exam	TED-Ed & MC-Motivation	TED-Ed & MC-Acquisition	TED-Ed & MC-Retention	TED-Ed & MC-Performance
r(15)	0.306	0.793	0.503	0.768	0.573	0.590	0.745
r-sqrd	0.093	0.629	0.253	0.590	0.328	0.348	0.554
p-value	0.217	0.000	0.039	0.000	0.013	0.010	0.000

PSYC 370

Statistics for the Behavioral Sciences

	TED-Ed & Class Participation	TED-Ed & Writing Grades	TED-Ed & Final Exam	TED-Ed & MC-Motivation	TED-Ed & MC-Acquisition	TED-Ed & MC-Retention	TED-Ed & MC-Performance
r(8)	0.899	0.230	0.442	0.762	0.662	0.767	0.559
r-sqrd	0.808	0.053	0.195	0.581	0.438	0.589	0.312
p-value	0.000	0.522	0.201	0.010	0.037	0.010	0.093

Significant Linear Increases

In Metacognition Across The Semester

PSYC 340 & PSYC 370 Combined (n=22)

1. Internal locus of control (#1; Motivation; p=0.015)
2. Self-directedness (item #3; Motivation; p=0.02)
3. Reorganizing information meaningfully, summarizing information regularly (item #12; Retention; p=0.031)
4. Ability to predict potential exam questions, and practice retrieval accordingly (item #14; Performance; p=0.009)
5. Transferring and integrating knowledge from one source to another (item #16; Performance; p=0.004)
6. Effectively matches test-taking techniques to the assessment situation (item #18; Performance; p=0.003)



Draw something and share it!

