How Video Production Affects Student Engagement:
An Empirical Study of MOOC Videos

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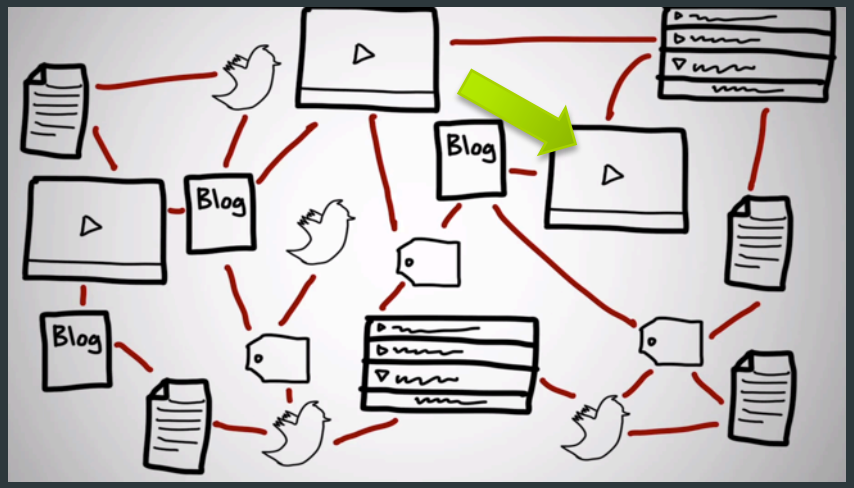
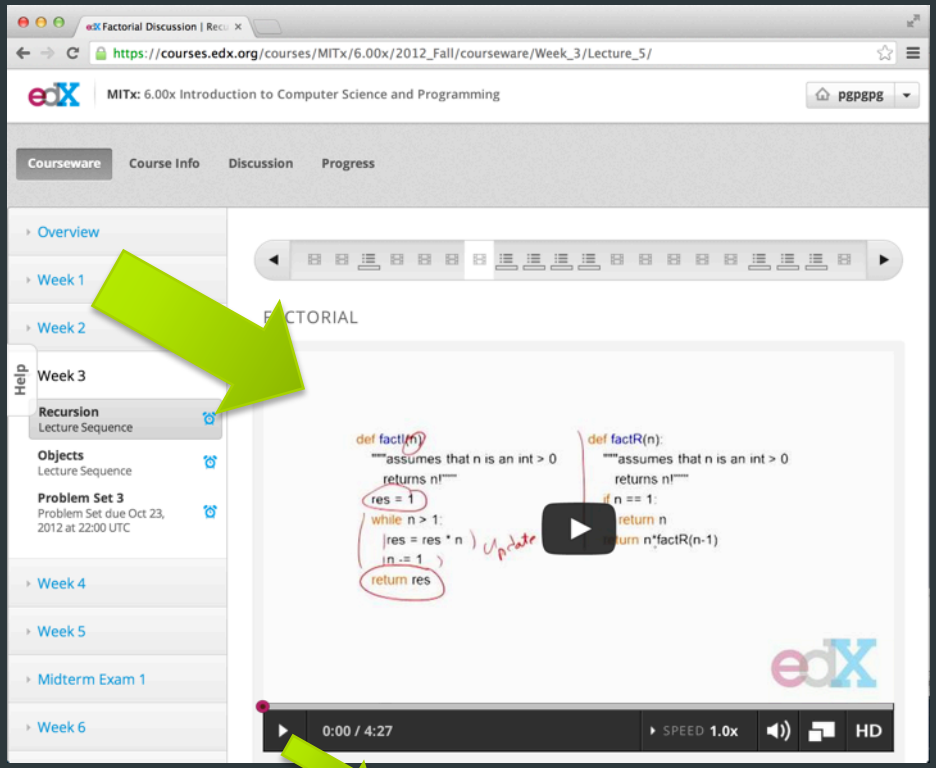
Rob Rubin — edX

cMOOC



Cormier, Downes, Siemens. 2008 –

xMOOC



Coursera, edX, Udacity. 2012 –


Which kinds of videos lead to the best learning outcomes in a MOOC?
Which kinds of videos lead to the most engagement at a reasonable cost?
edX video producer

OUR STUDY

How does video production affect engagement?

(largest-scale study to date)

METHODOLOGY

Video data

4 edX courses, Fall 2012: CS1, A.I., Stat, Chem

862 videos, 128k students, 6.9 million sessions

Engagement metric

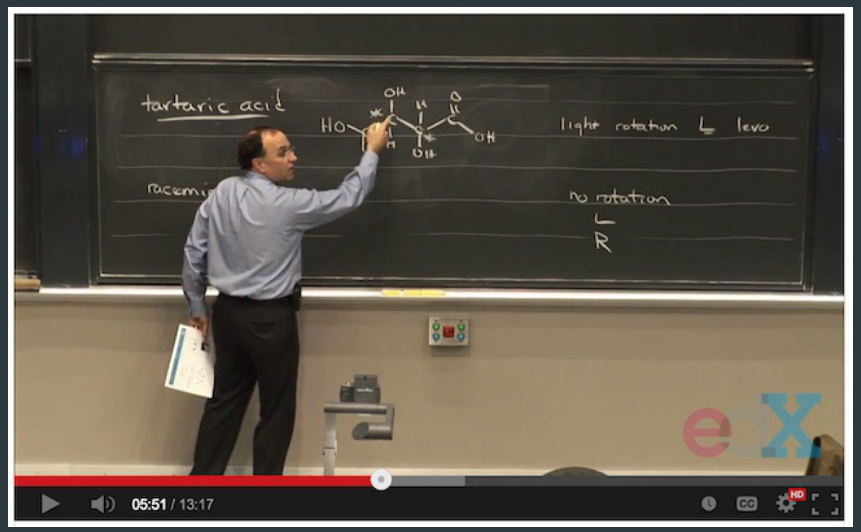
video watching session length

Interviews

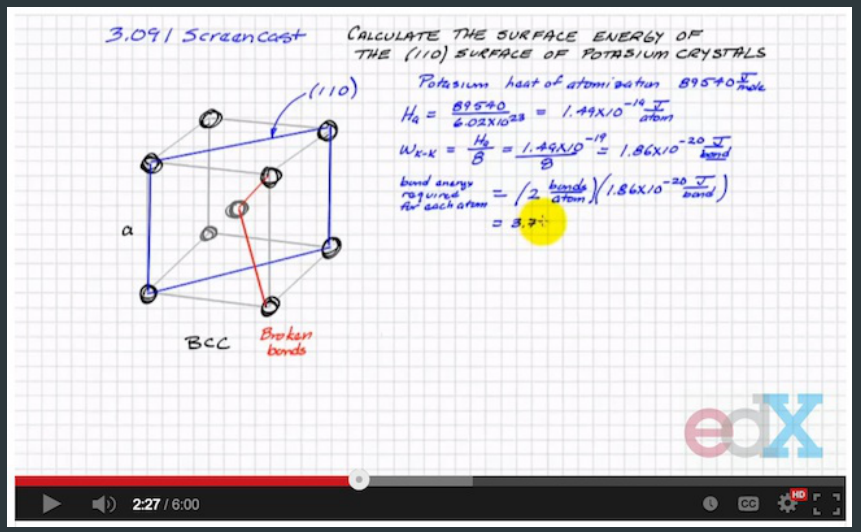
with edX video producers & program managers

VIDEO TYPE

Lectures

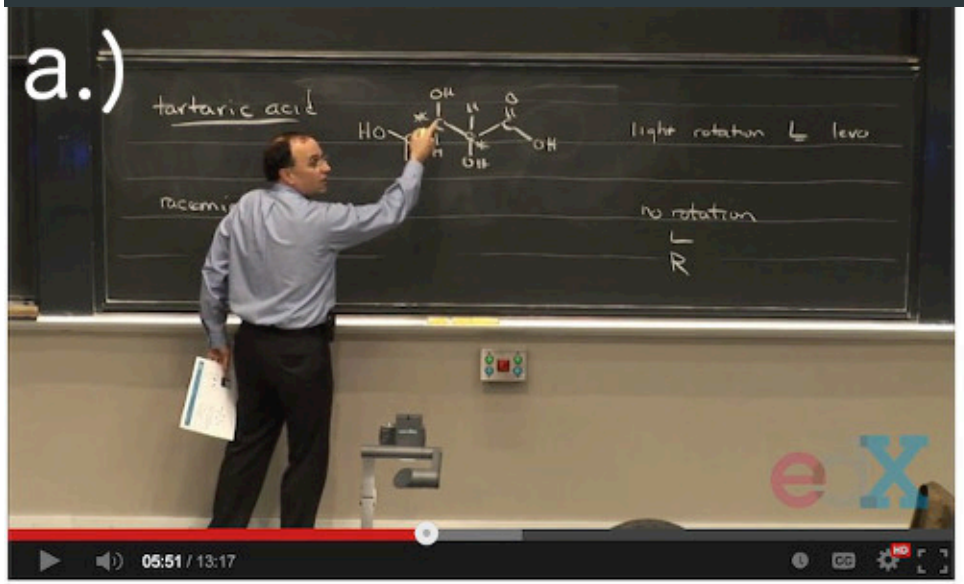


Tutorials



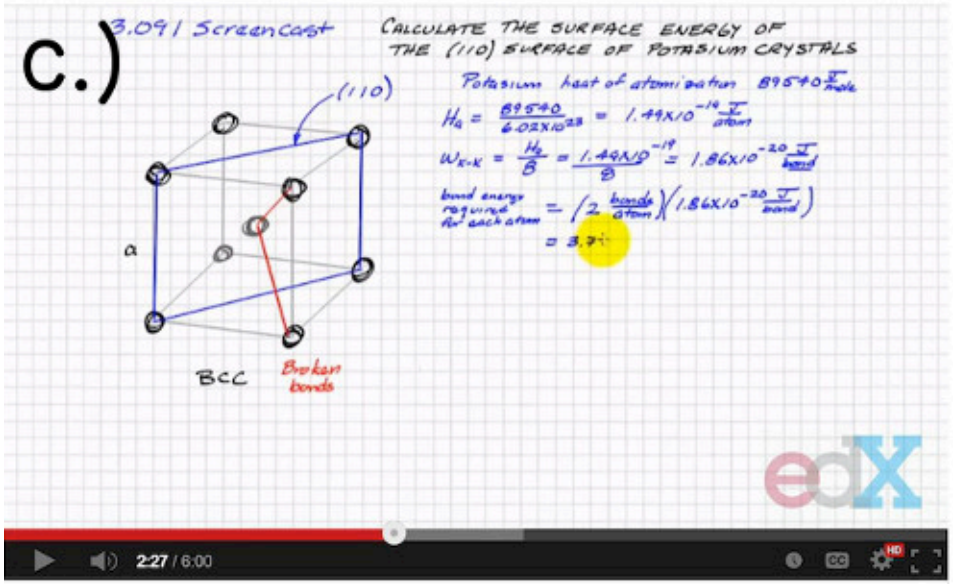
RECORDING STYLE

a.)



b.)

c.)



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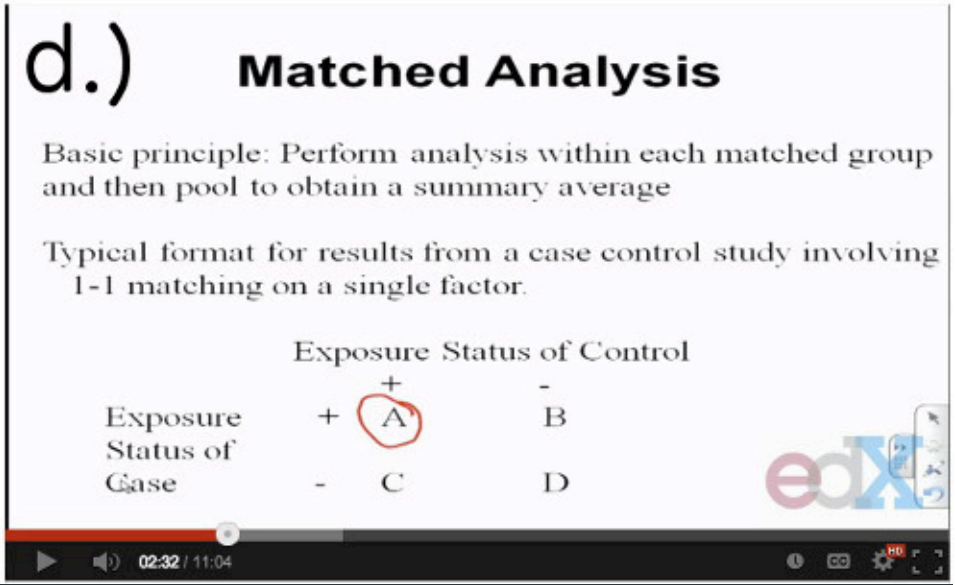
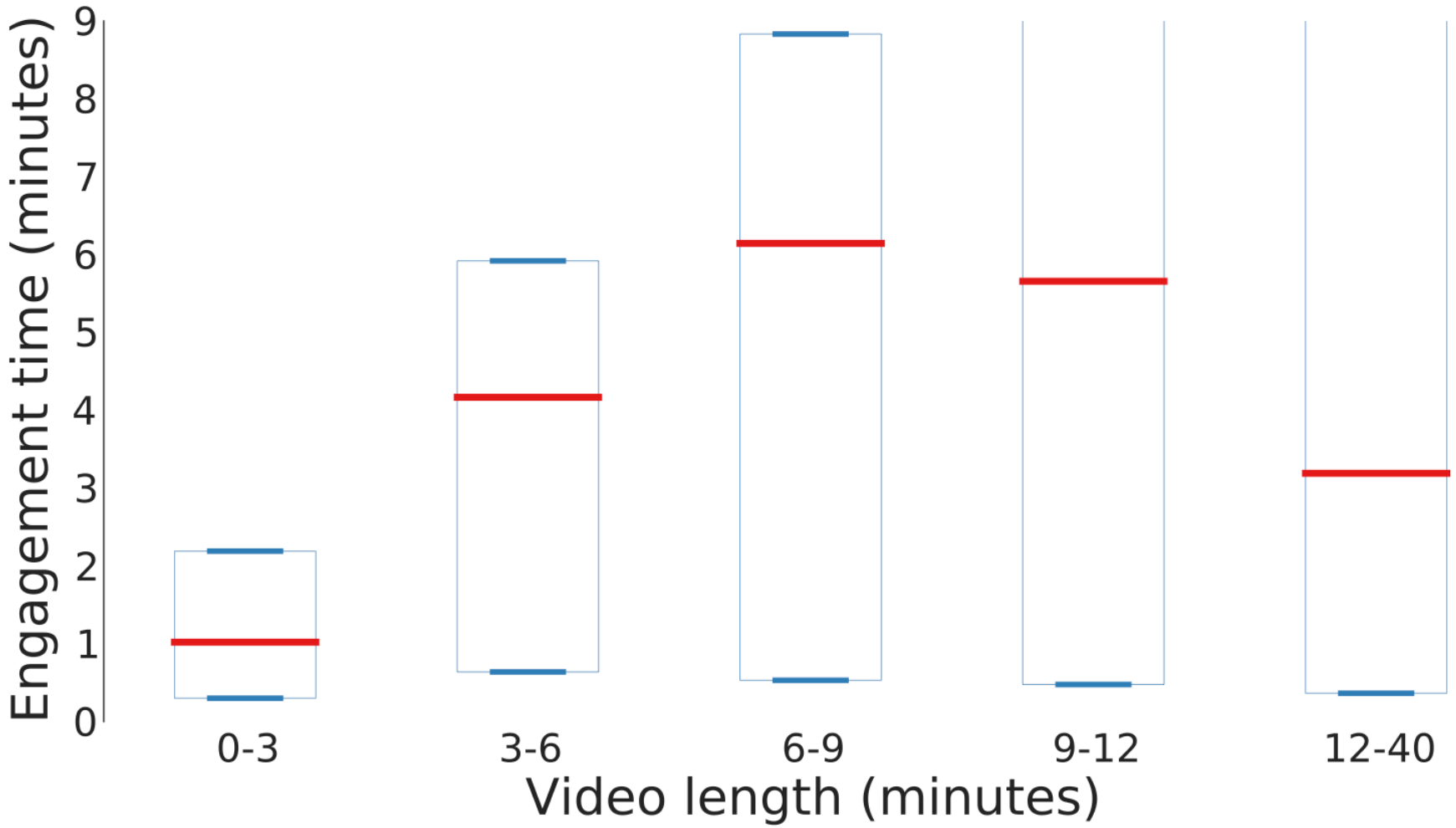


Five Findings and Recommendations

1. Shorter videos much more engaging



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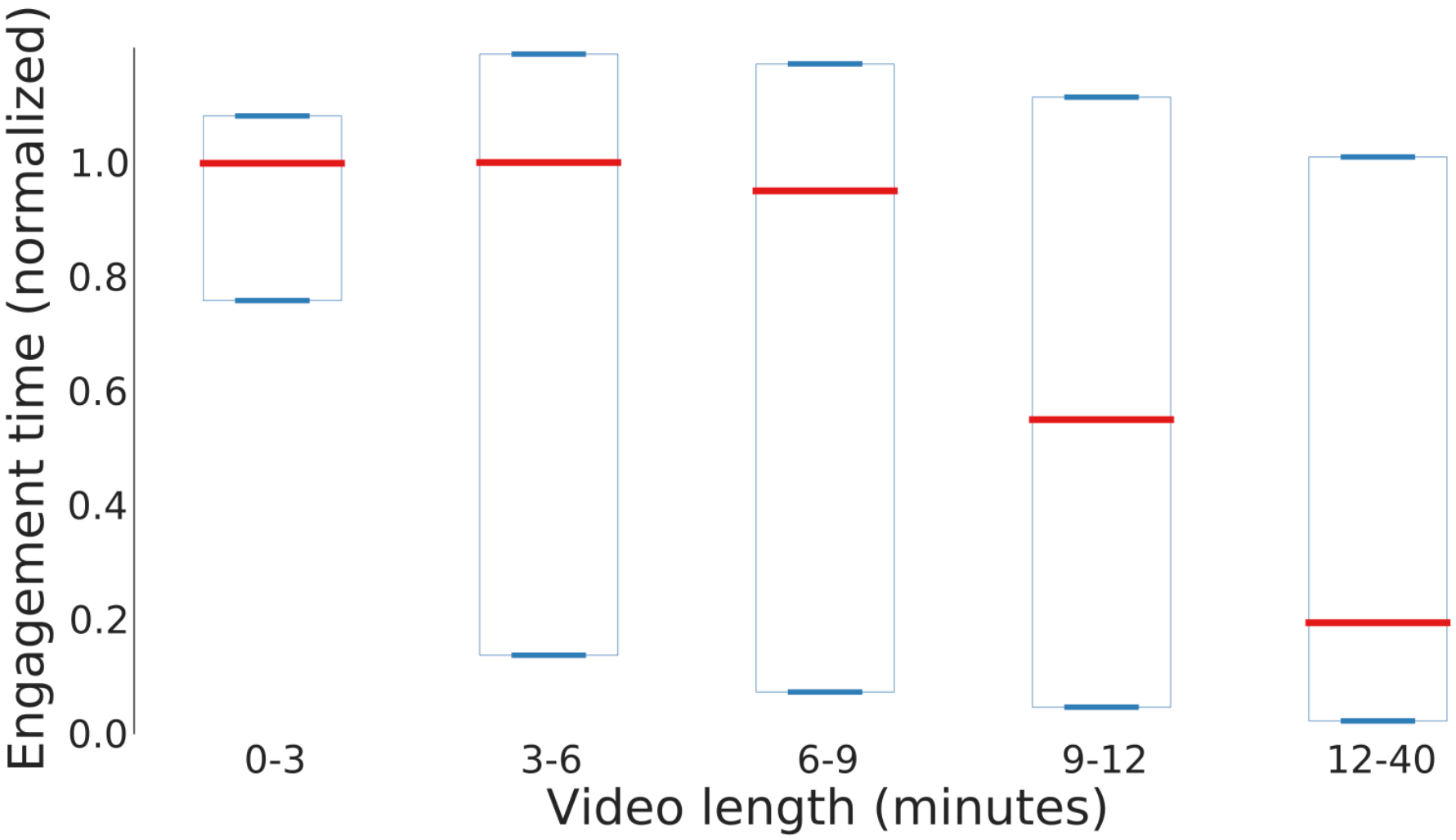

RECOMMENDATION

Invest in pre-production to plan for < 6-min segments

2. Pre-production improves engagement

Both courses recorded as live classroom lectures with highly-rated lecturers.

a.) with pre-production, b.) only post-production

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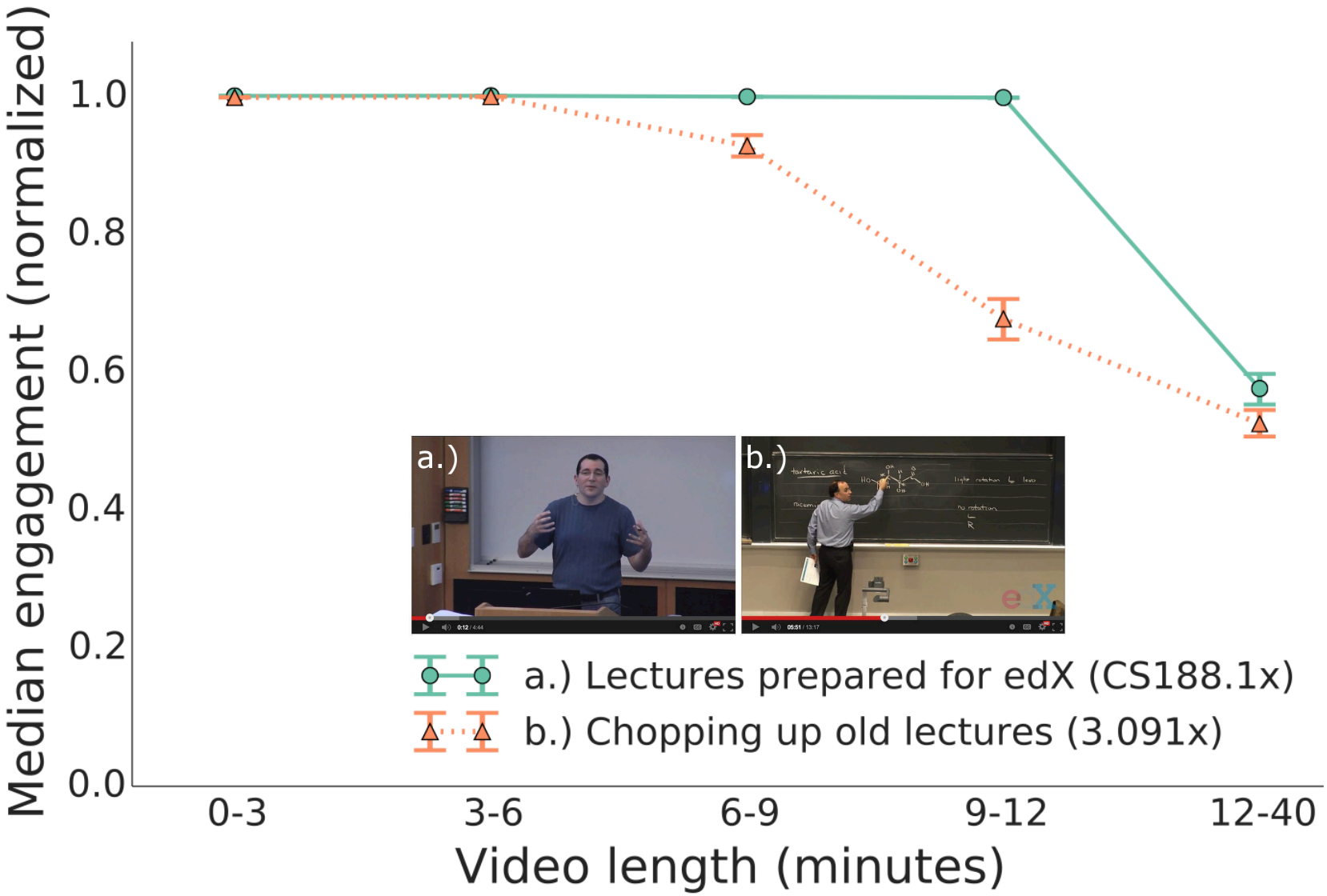
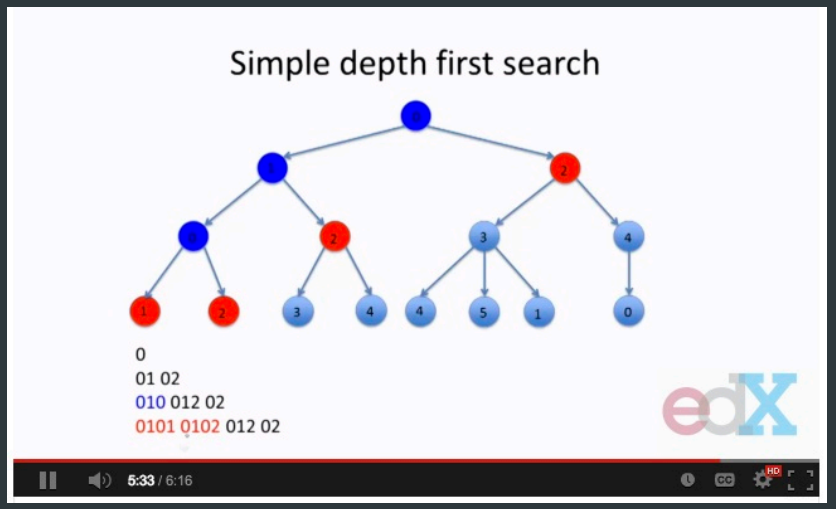


RECOMMENDATION

Always plan for MOOC format, even for live lectures

3. Talking head more engaging



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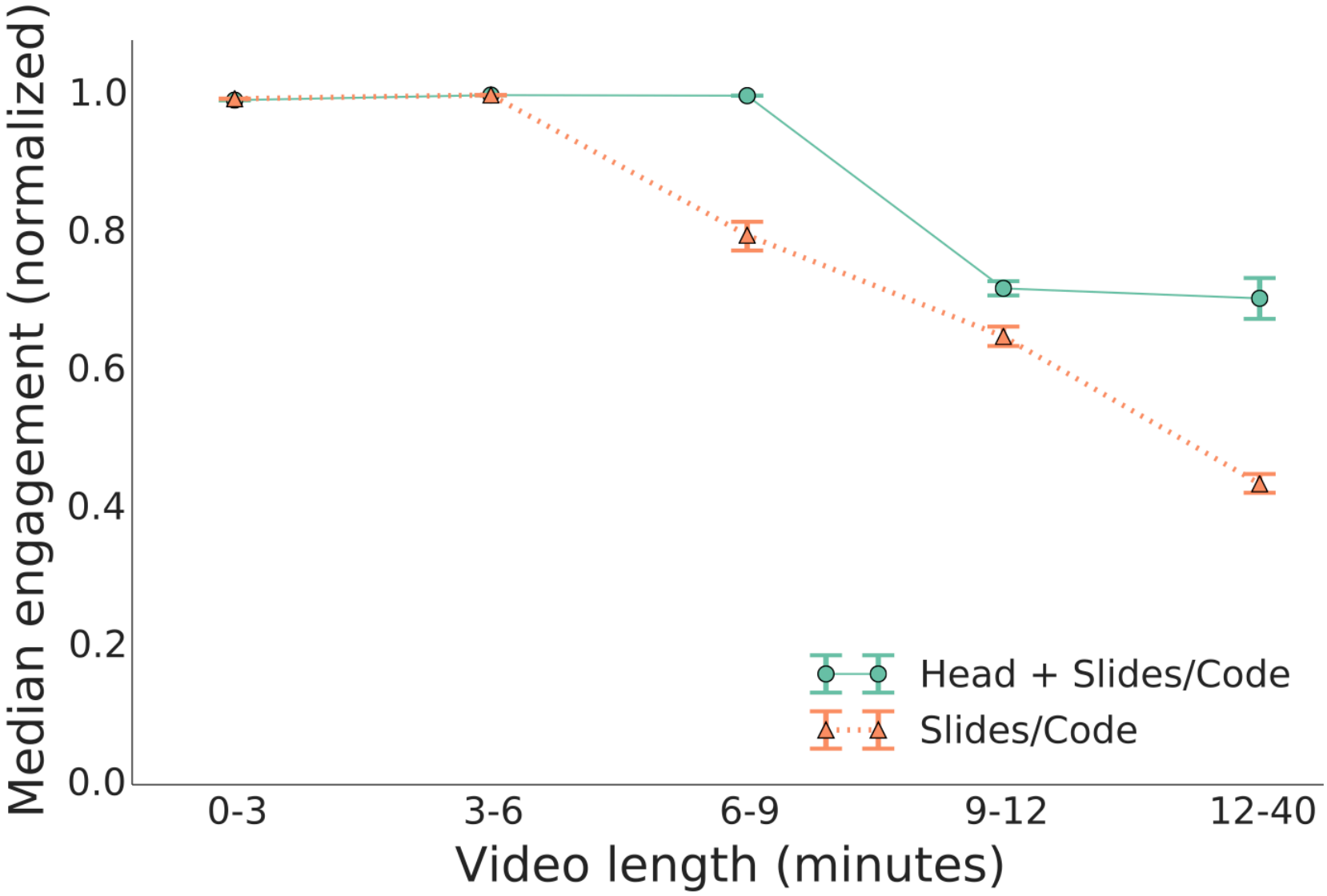
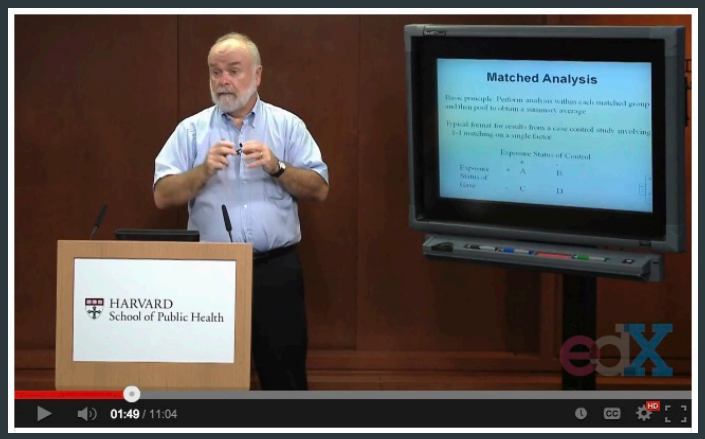
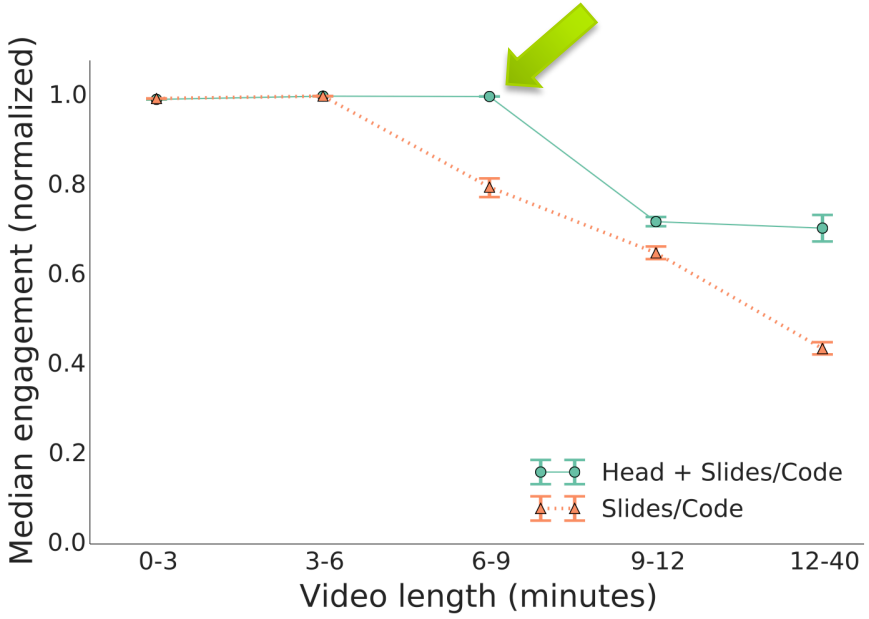


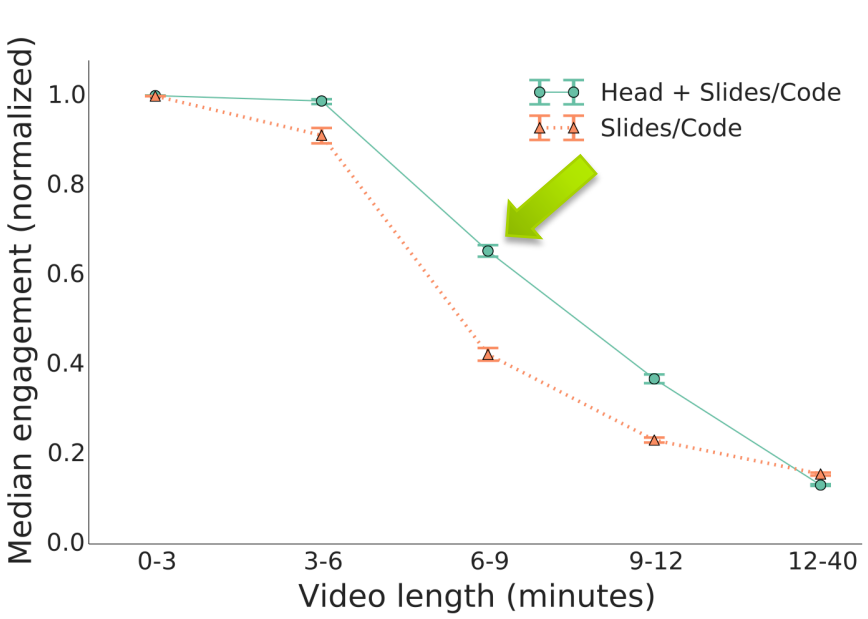
RECOMMENDATION

Record and insert talking head at opportune times

4. Informal shots can beat expensive studios



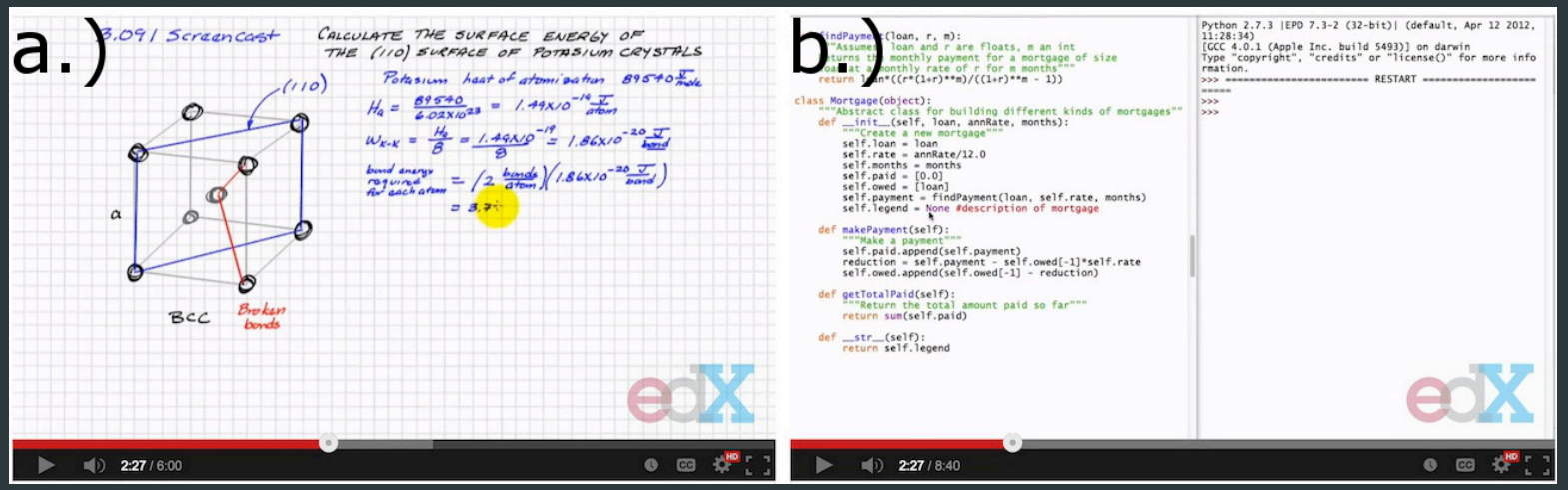




RECOMMENDATION

Strive for one-on-one, personal feel instead of high-end studio production

5. Khan-style tutorials beat slides/code



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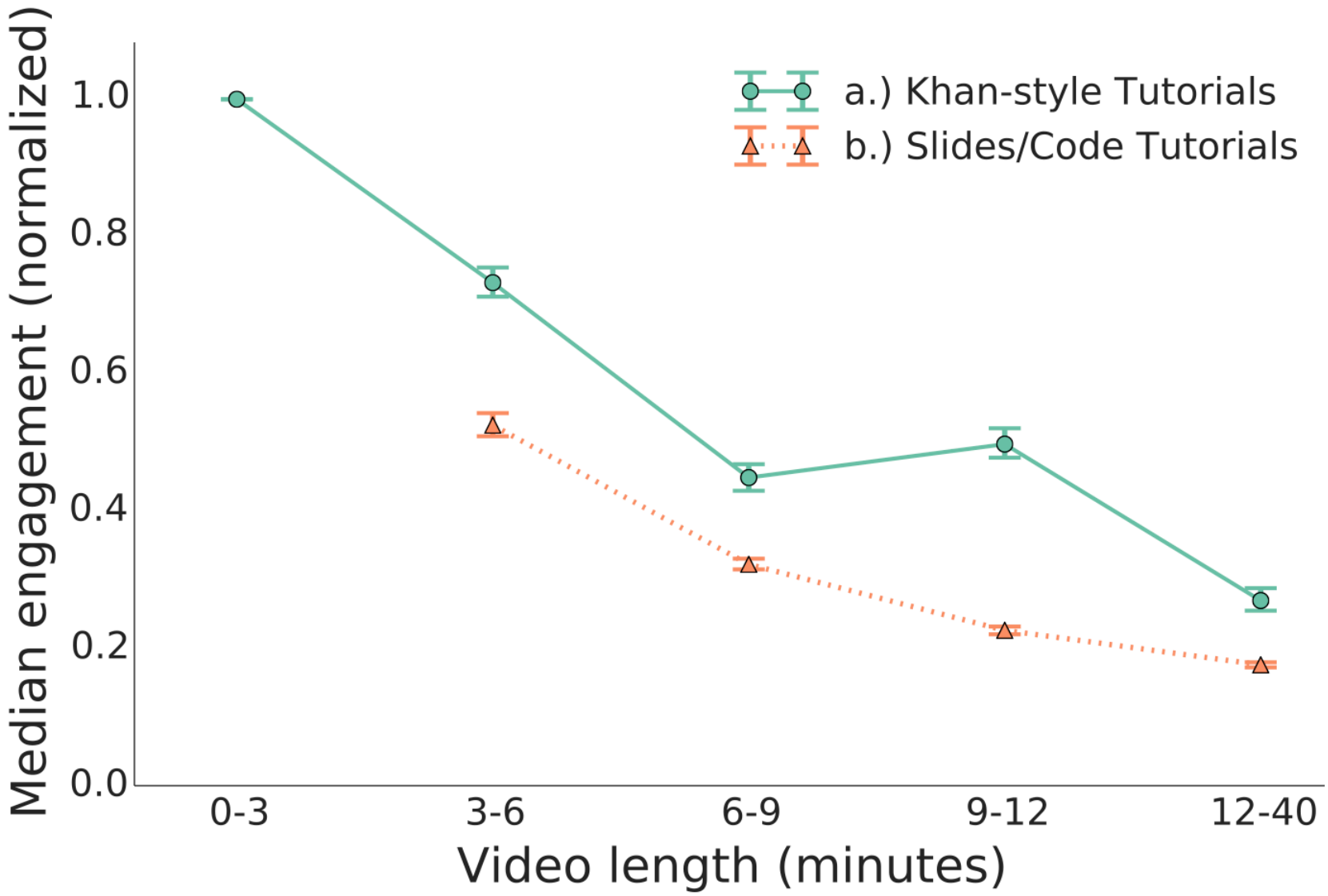
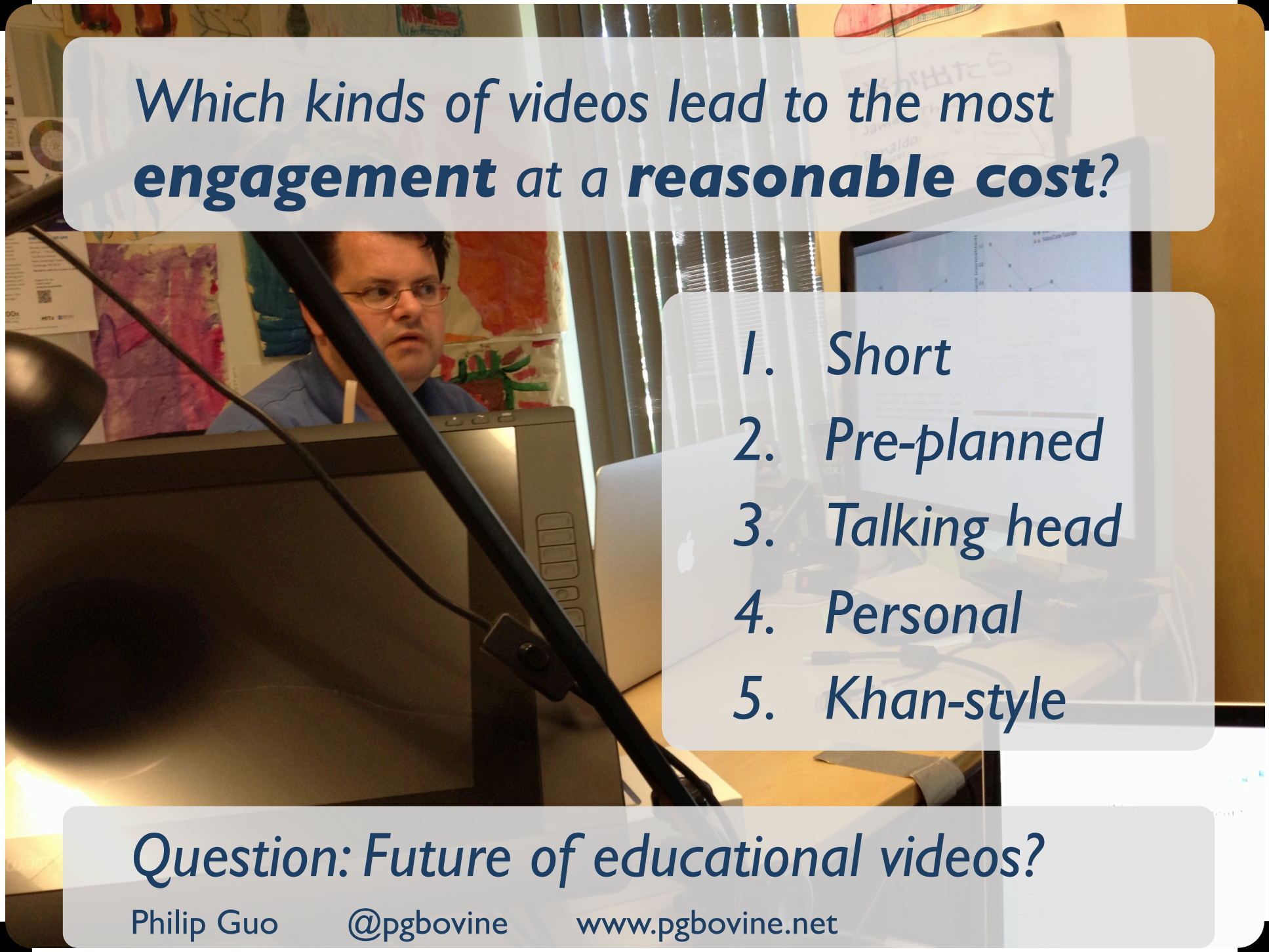


RECOMMENDATION

Use hand-drawn motion and extemporaneous speaking



Which kinds of videos lead to the most ***engagement*** *at a* ***reasonable cost****?*

1. *Short*
2. *Pre-planned*
3. *Talking head*
4. *Personal*
5. *Khan-style*

Question: Future of educational videos?

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