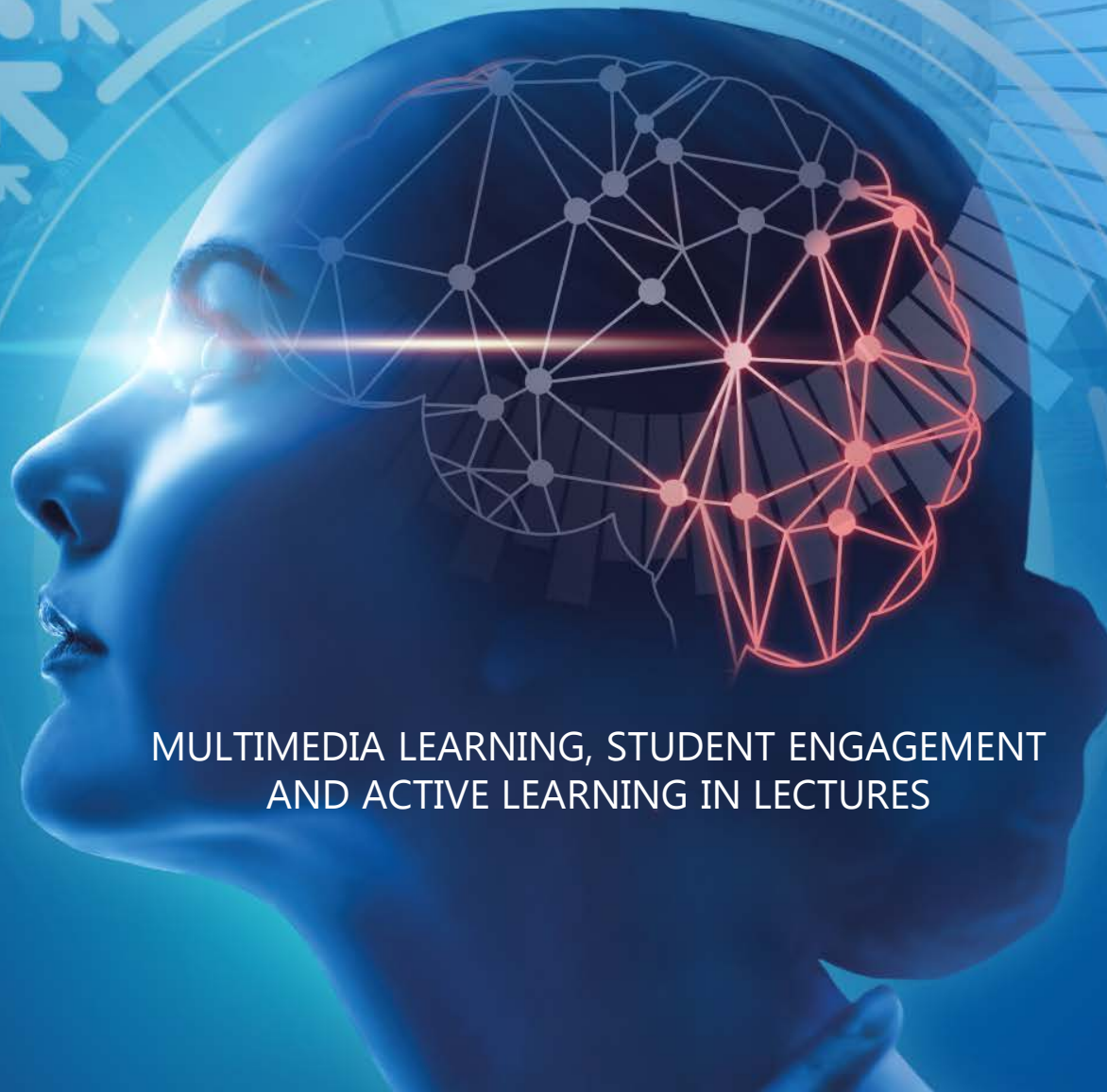


BEYOND 'DEATH BY POWERPOINT'



MULTIMEDIA LEARNING, STUDENT ENGAGEMENT
AND ACTIVE LEARNING IN LECTURES

lectures as hegemonic norm for efficiency in marketized HE





lectures as mostly logocentric

**'hard' disciplines use a
greater number of
small graphics and
fewer large ones**

Garrett, 2016

**‘soft’ disciplines
use fewer but
larger
graphics**

Garrett, 2016

**visual subjects
use images
more**

Garrett, 2016

almost all use text more than images



POWERPOINT

primary delivery platform



'habits of mind' & centuries of convention



technodeterminism





perpetuates textual hegemony



MML literature

**WE
LEARN
BETTER
FROM
IMAGES AND
WORDS
THAN
WORDS
ALONE**

sighted people are dual processors



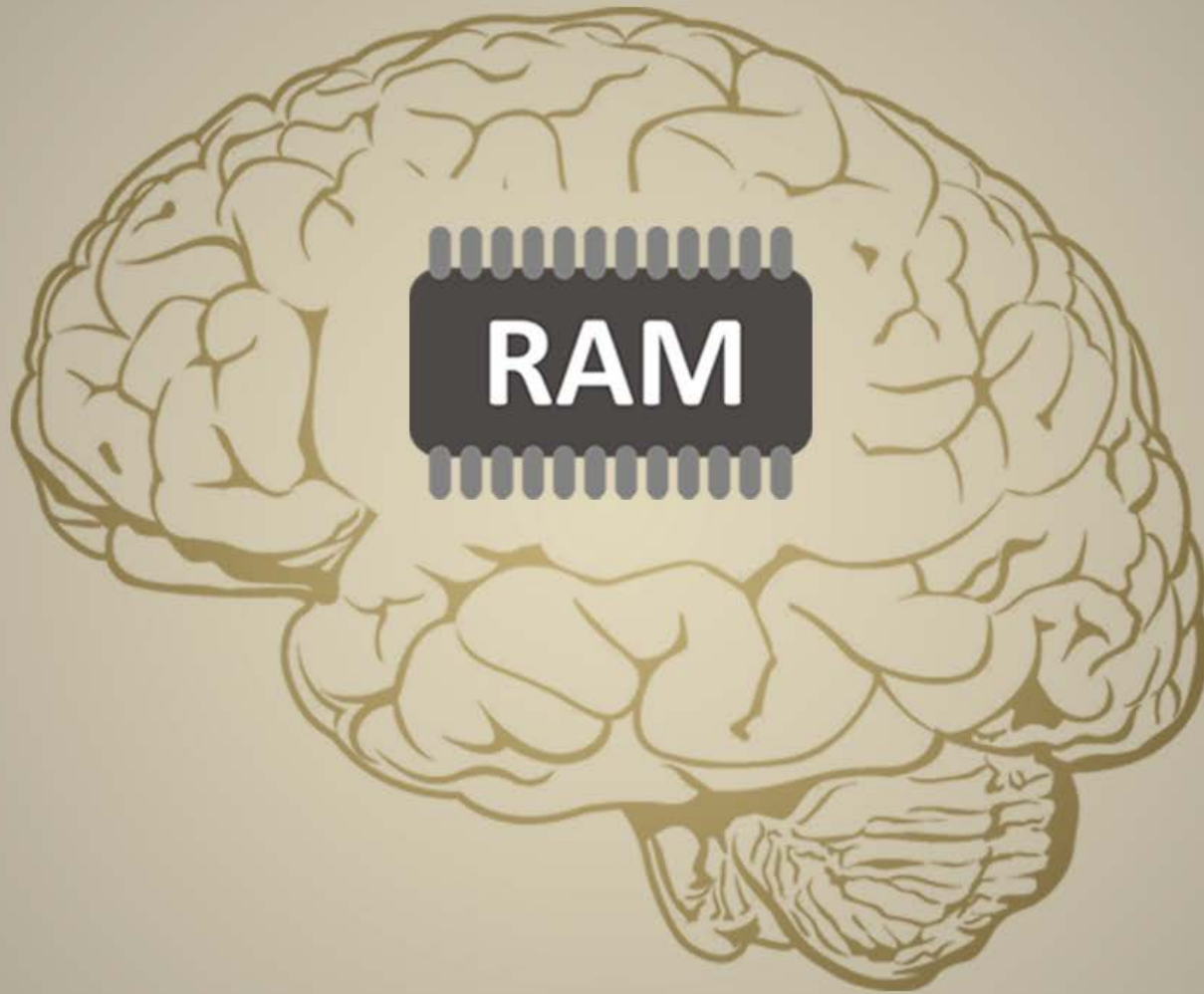


HE lectures mismatched with cognitive capacity



looks like this...

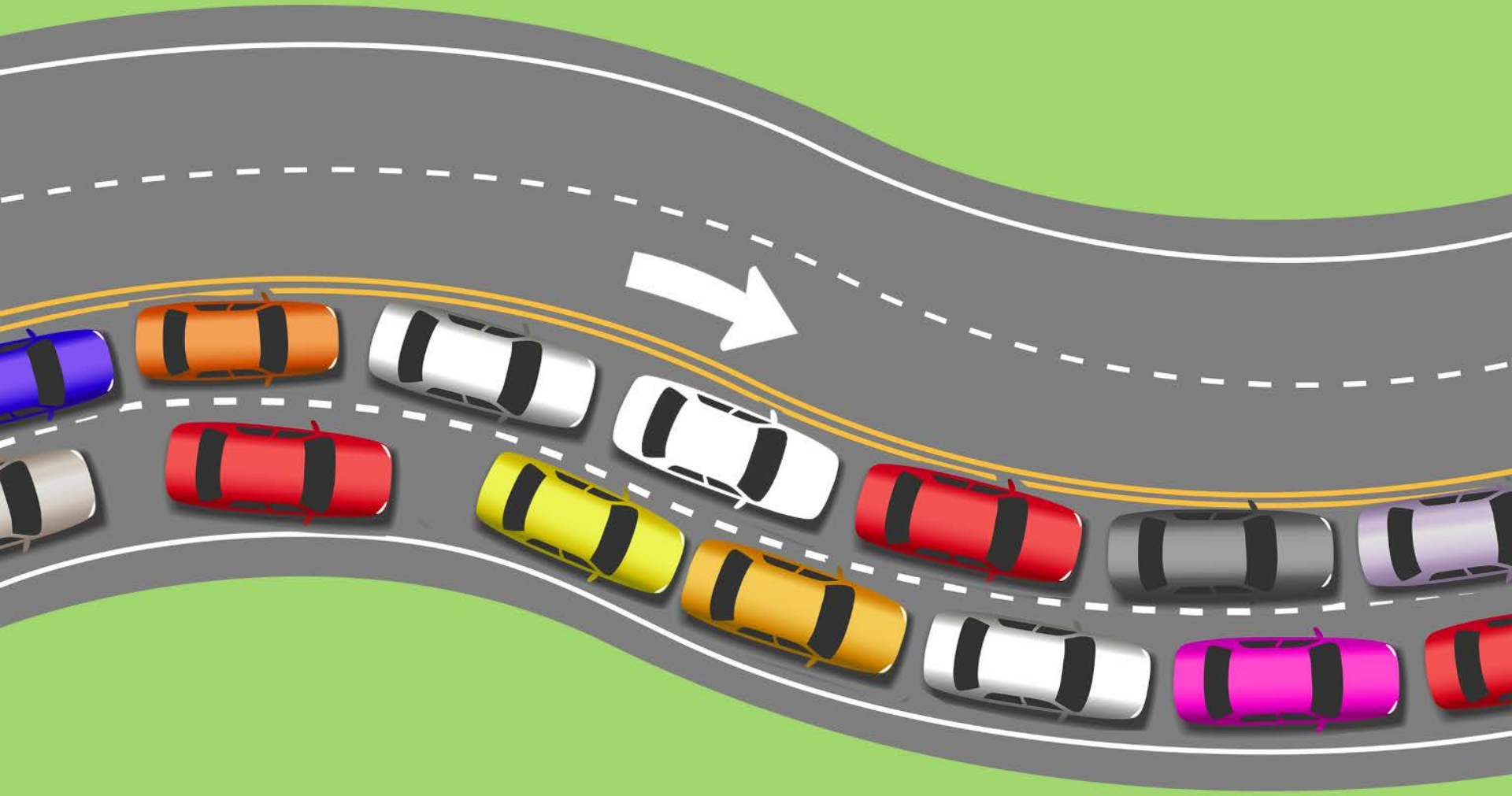
excess text overloads short term memory (Miller's Law)



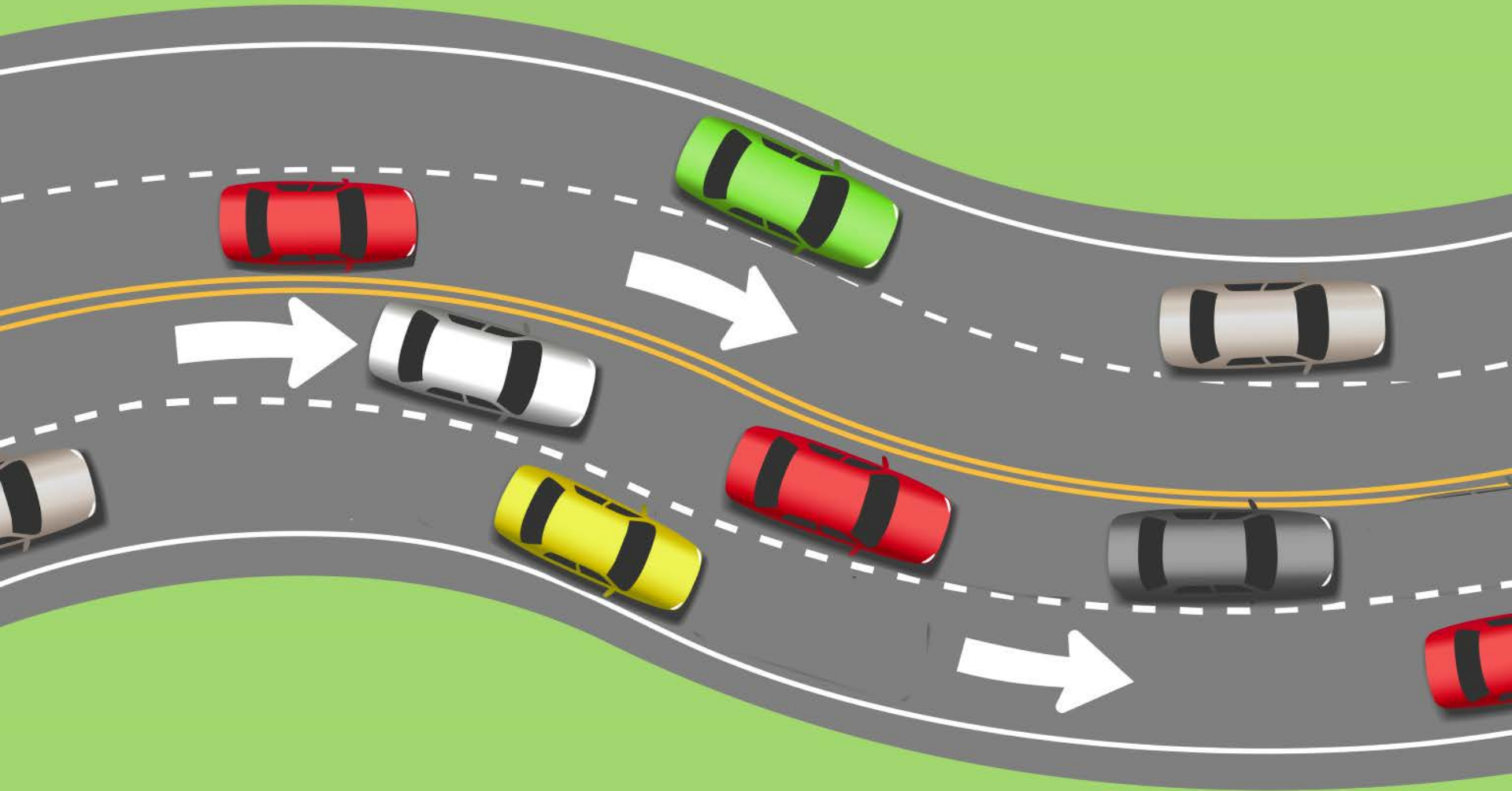
causes cognitive overload and disengagement



MML proposes shift from this...



to this



balance delivery to reflect reception



disperse text



engage imagery



evolution



evolution



revolving doors and state-corporate corruption



civil war and domestic violence



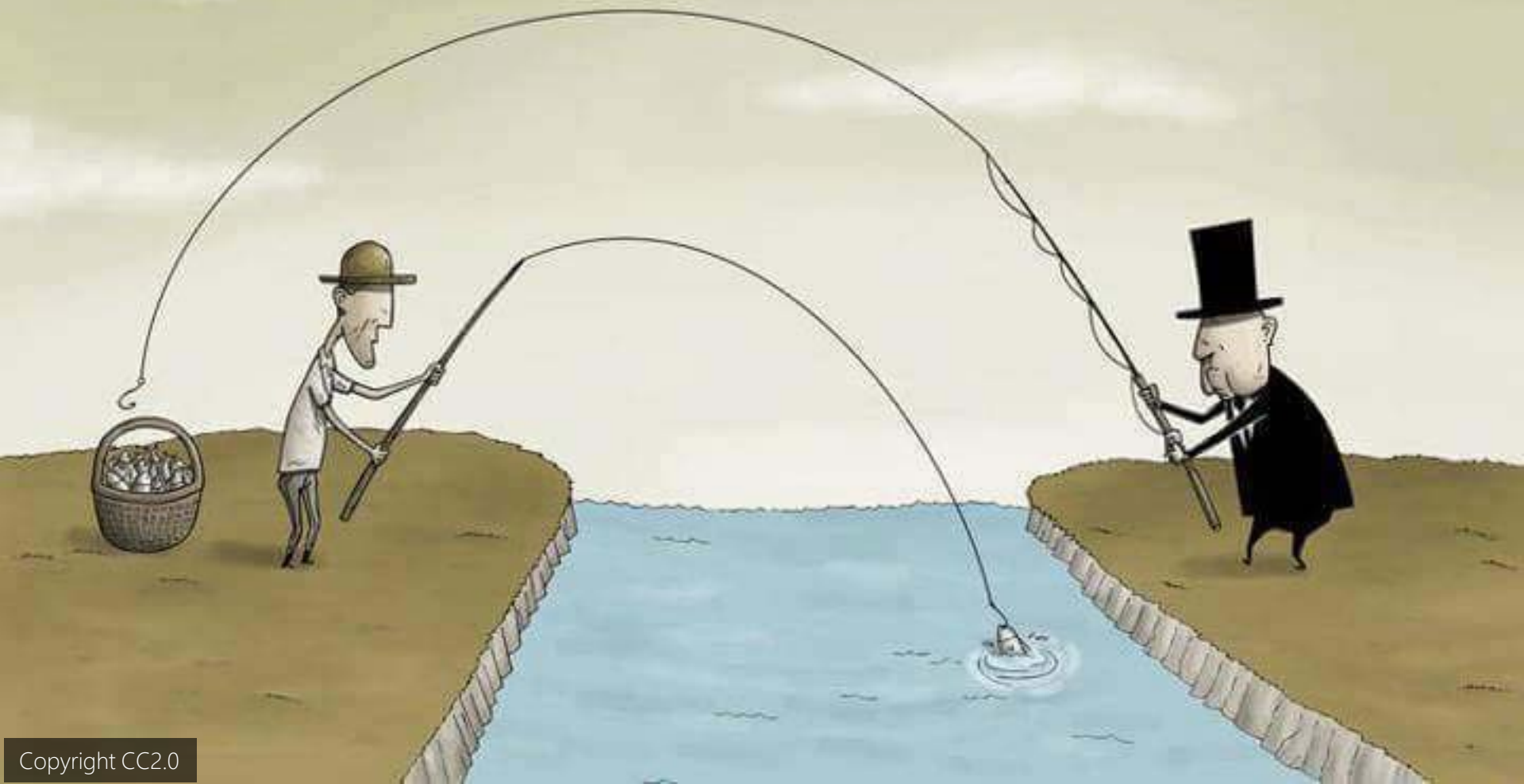
renders visible the invisible





social
studies

economics



health studies



engineering



hypothesis supported in 9 disciplines



empirically tested...



longitudinal control & experiment groups





Visual Learning Research

www.newmultimediarsearch.org



What we're doing

As researchers at Loughborough University, we're running an experiment to see if using images in lectures can help students better understand the subject being taught. We think that lectures can be greatly improved if we use high quality images as well as words, instead of mostly privileging text – because a picture really can be worth a thousand words. Combining images and text matches how we teach, to how your brains learn. We believe this increases attention, engagement and active learning, for neurostandard students and for those experiencing conditions like dyslexia as well.



Ethical clearance

Loughborough University has approved this research method.



Informed consent

This form explains our responsibilities to you, and your right to participate or withdraw without consequence at any time.



Contact us

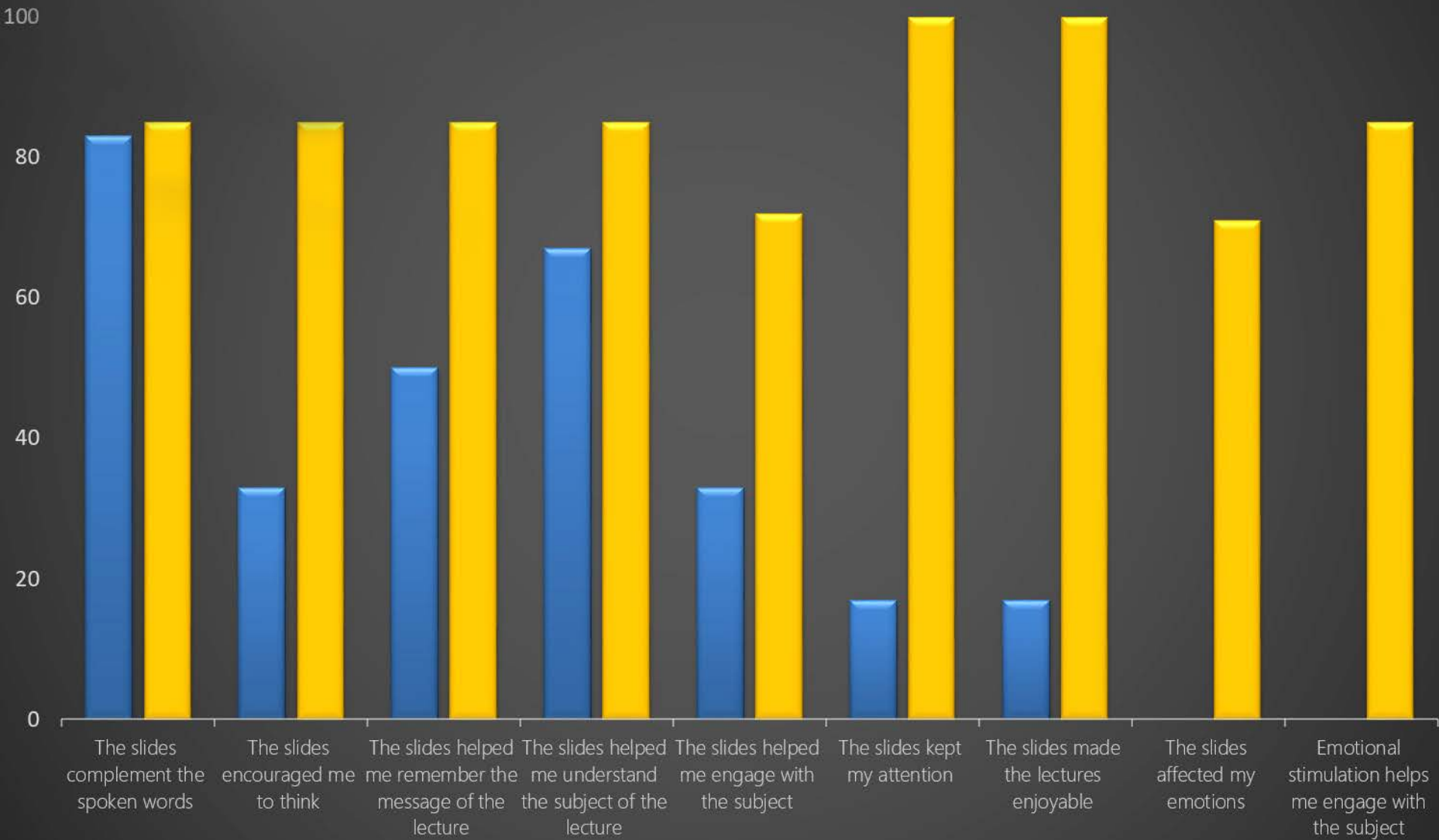
Dr David Roberts
D.Roberts@lboro.ac.uk

Bristol Online Survey



Grp 1 Grp 2

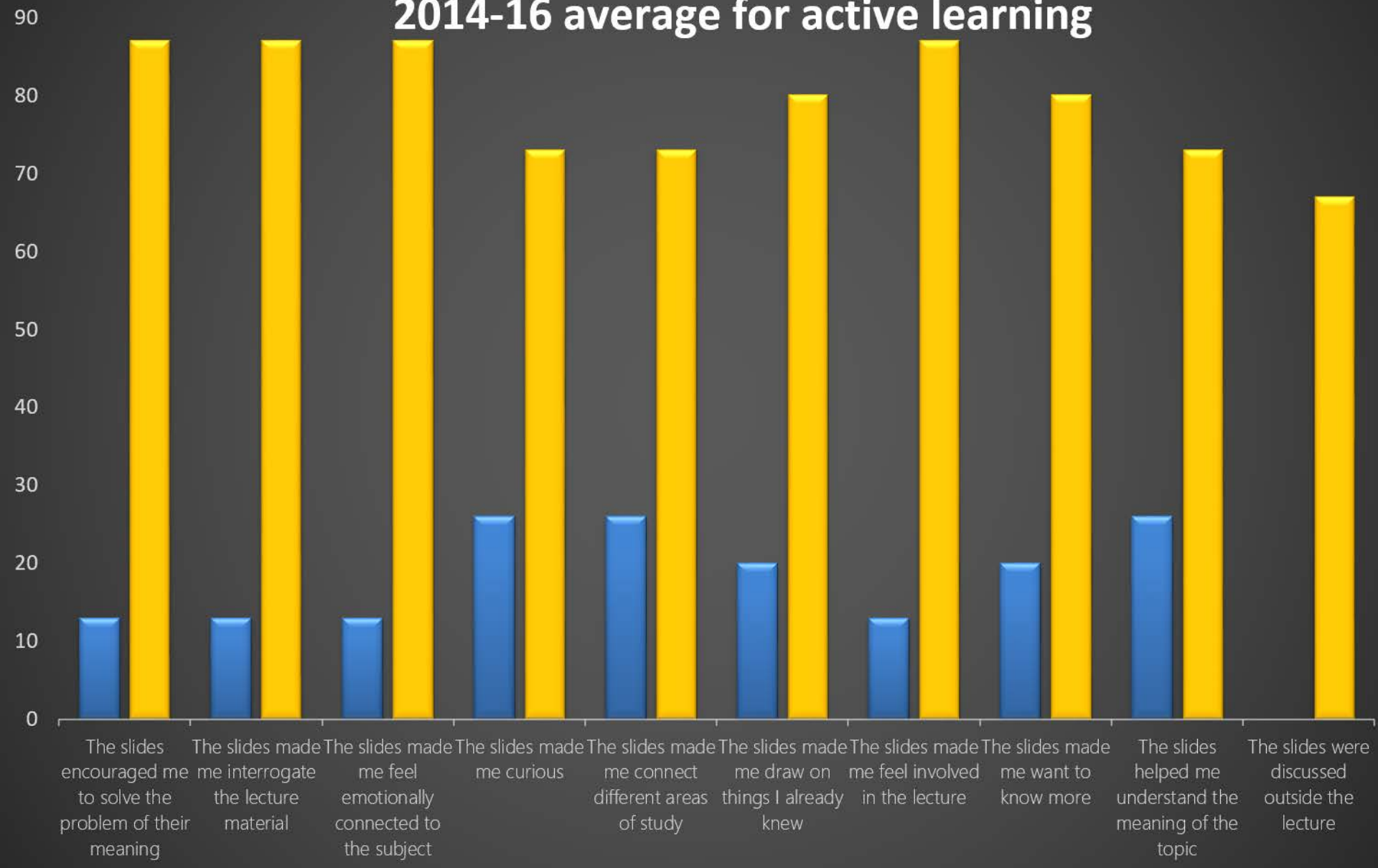
2014-16 average for engagement



100

Grp 1 Grp 2

2014-16 average for active learning



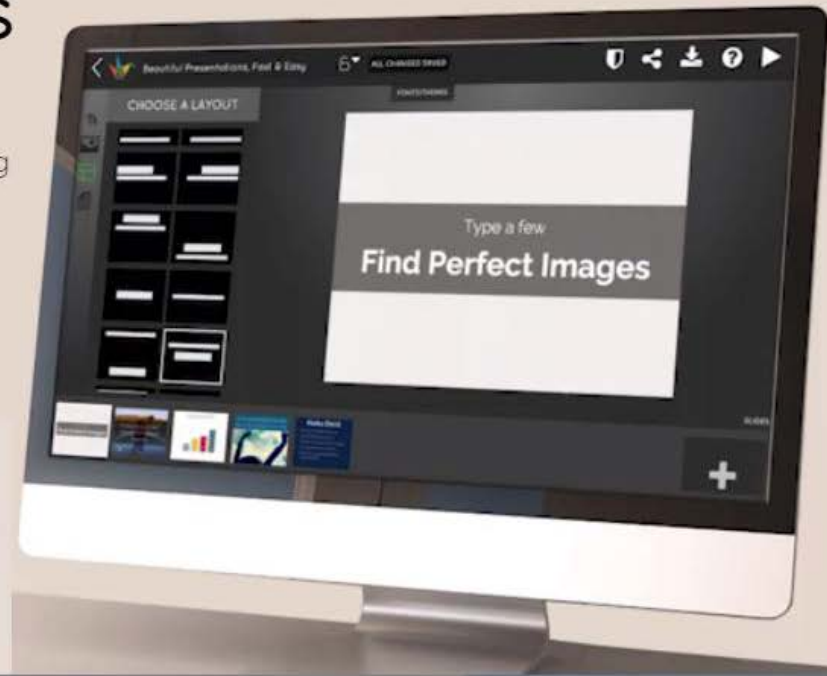
BREAK FOR DISCUSSION

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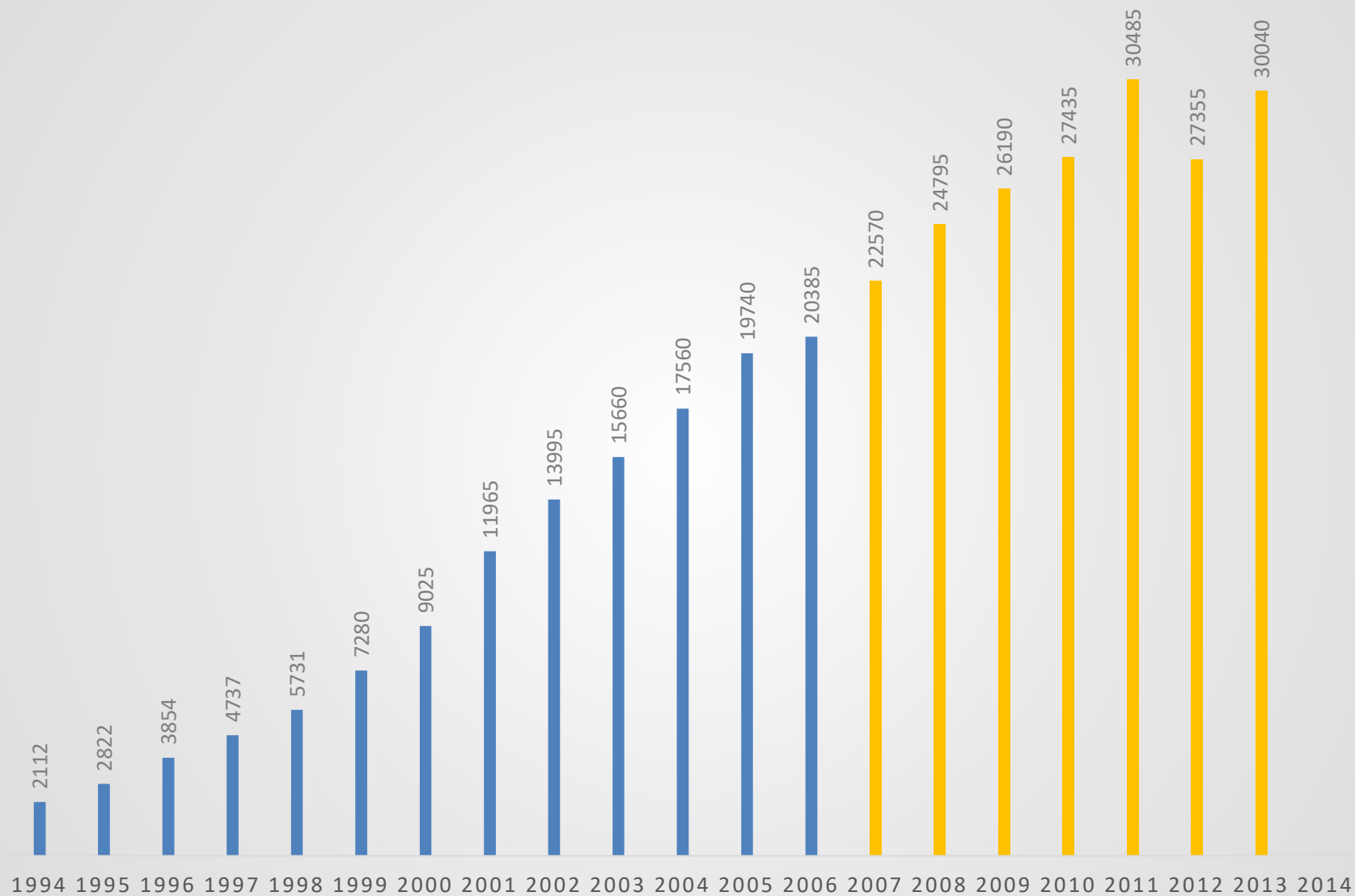


“

prompted inquiry into effect for
dyslexic students

TEDx





DYSLEXIA-SPLD UK STUDENTS 1994-2014

textual oppression common but not generalizable





I feel cut off and we have lectures all the time. I'm **overwhelmed** with words.

Visual Learning Research

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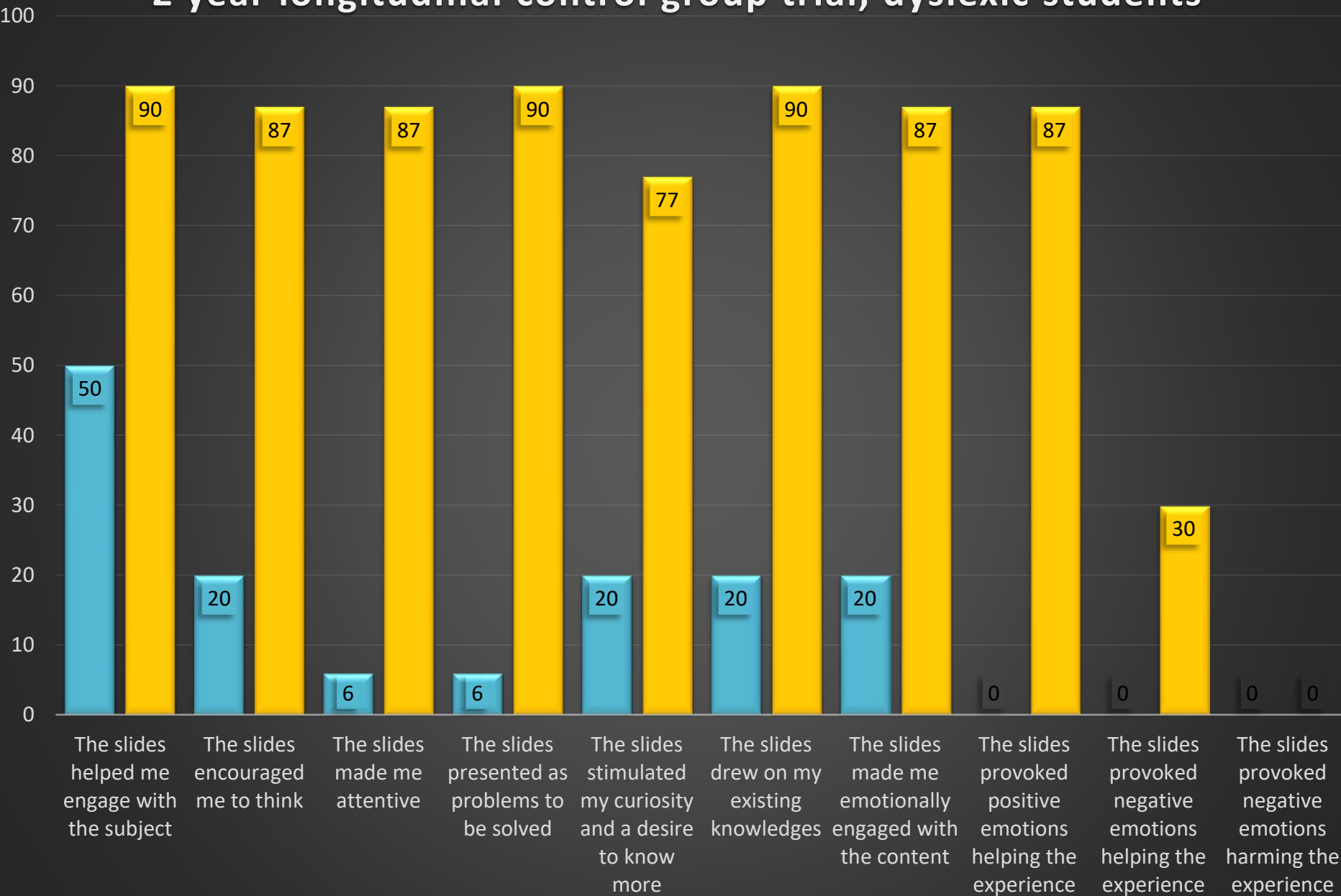
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Contact us

Dr David Roberts
D.Roberts@lboro.ac.uk

2 year longitudinal control group trial, dyslexic students



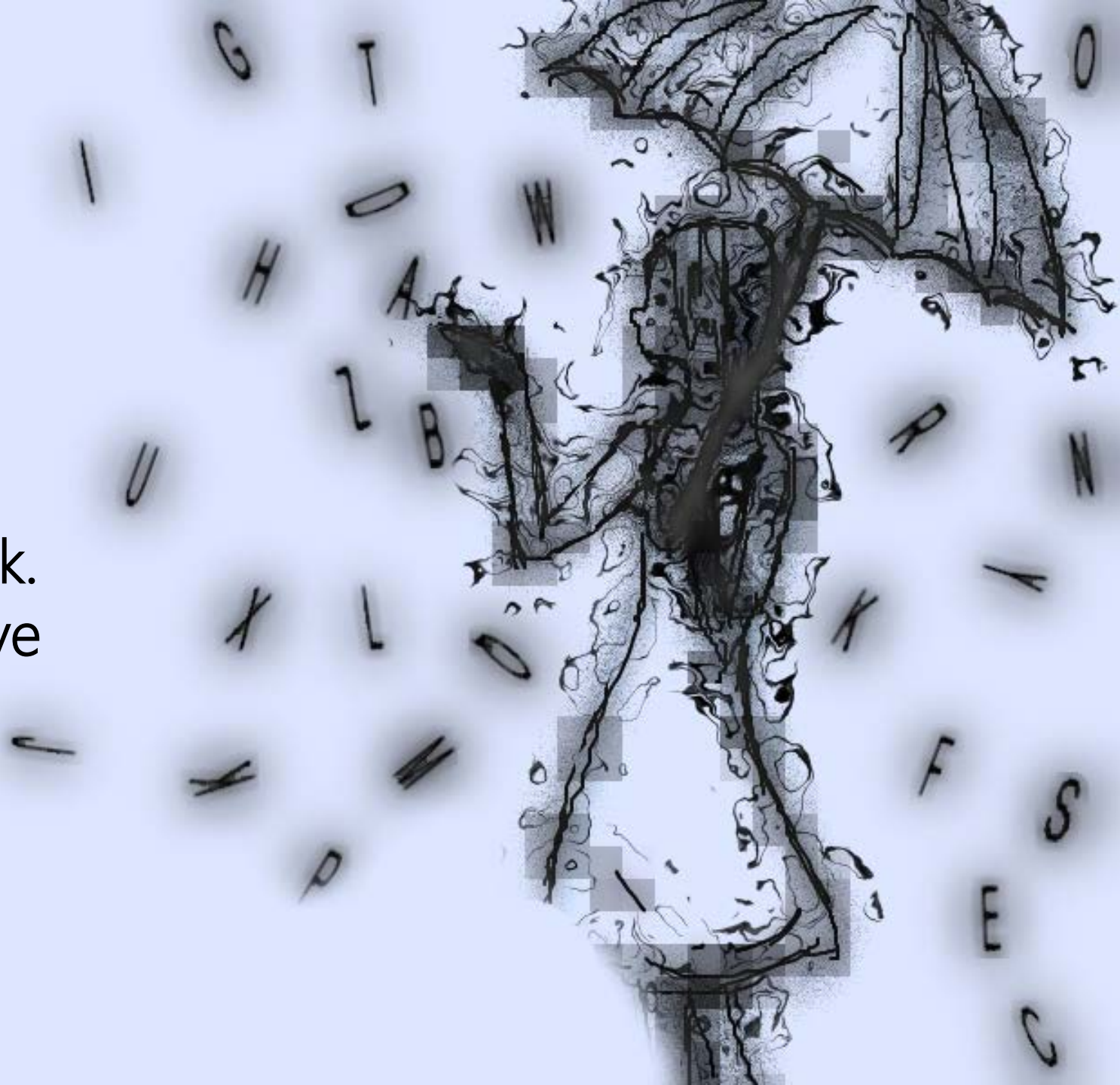
■ Text only ■ Images and text

focus groups...



many described challenges with text and
propensity for imagery

I got it
straight
away, from
the first
slide... the
images stick.
I barely have
to try with
this
method...



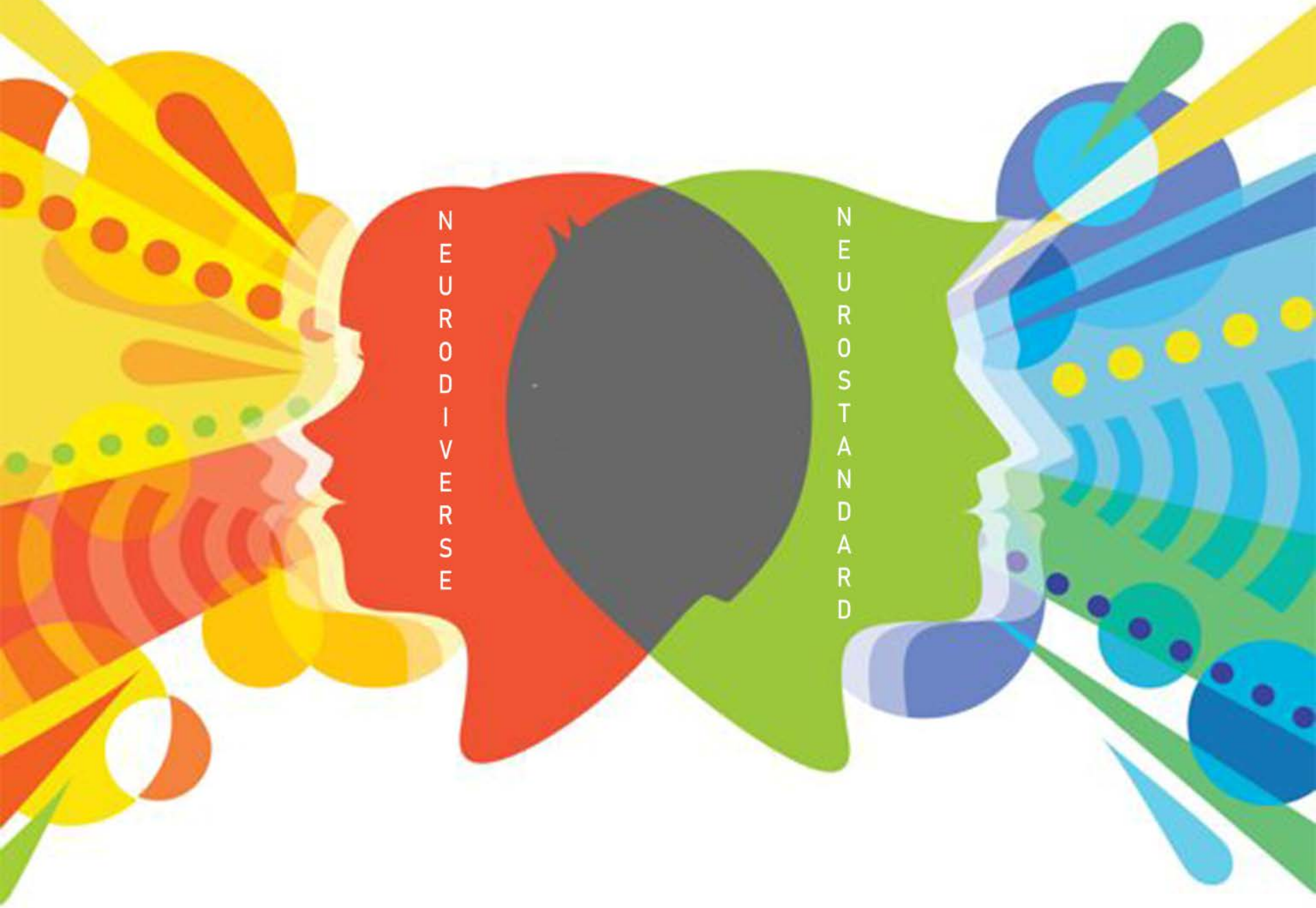
TAKEAWAYS





engagement, active and affective learning all increase with image use





NEURO DIVERSE

NEURO STANDARD

key is **cognition**, not content





The HEA... recognizes Dr. Roberts' innovative approach to the physiological match between how we learn and understand... and... how we teach and communicate. The method is shown... to increase engagement and strengthen active learning practices... [It] is an antidote to 'Death by PowerPoint'.



01

**NATIONAL
STUDENT
SURVEY**

02

**STUDENT
ENGAGEMENT**

03

INCLUSIVITY

04

**CONTINUING
PROFESSIONAL
DEVELOPMENT**

www.davidrobertsconsulting.org

Thank you

