National Foreign Language Center
University of Maryland

THE ROLE OF TECHNOLOGY IN LANGUAGE LEARNING AND TEACHING

David P. Ellis, PhD, PMP

SECOND LANGUAGE ACQUISITION

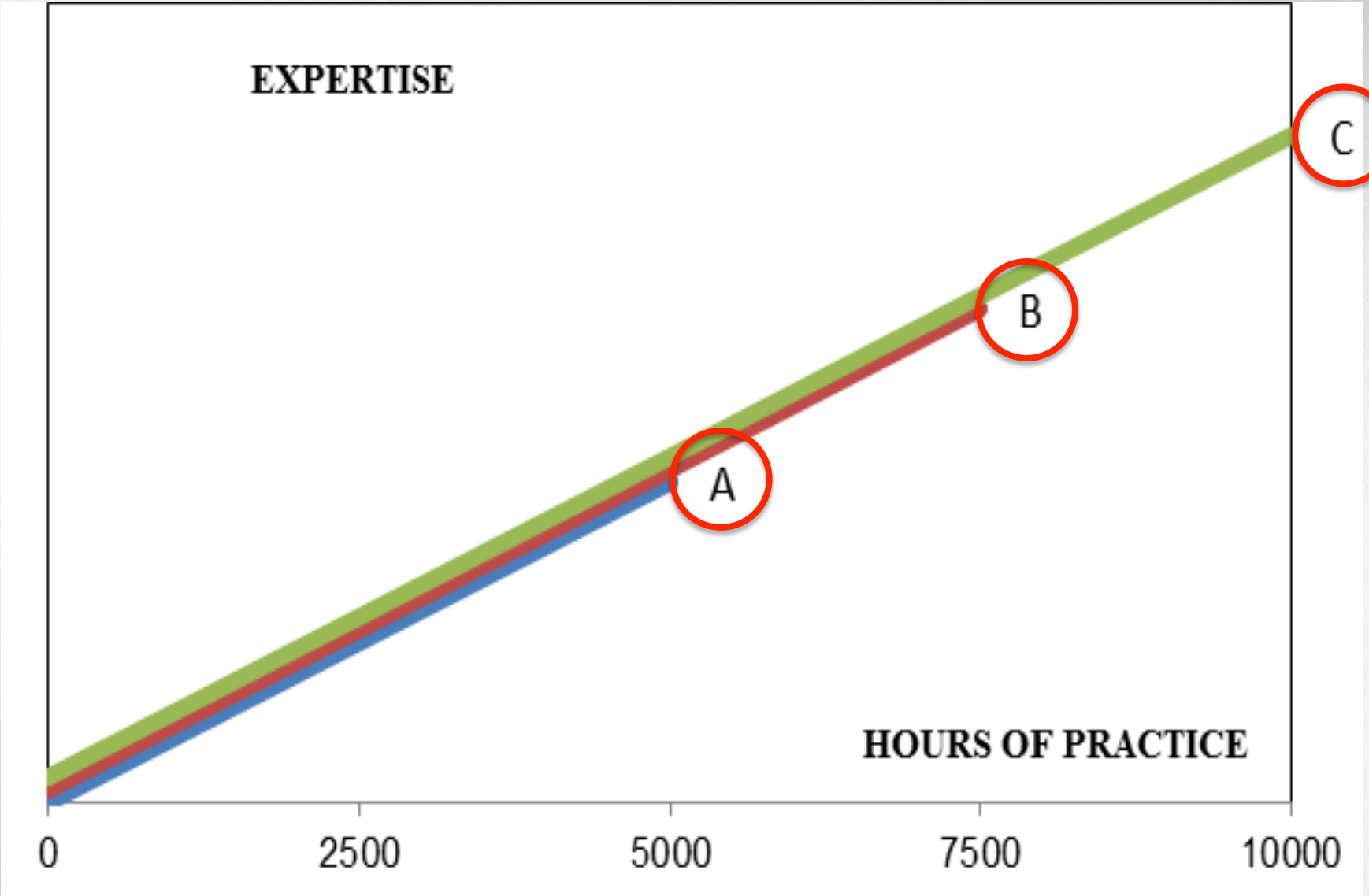
Internal Factors

- Age of onset
- Aptitude
- Other cognitive factors
  - Learning styles
  - Personality types

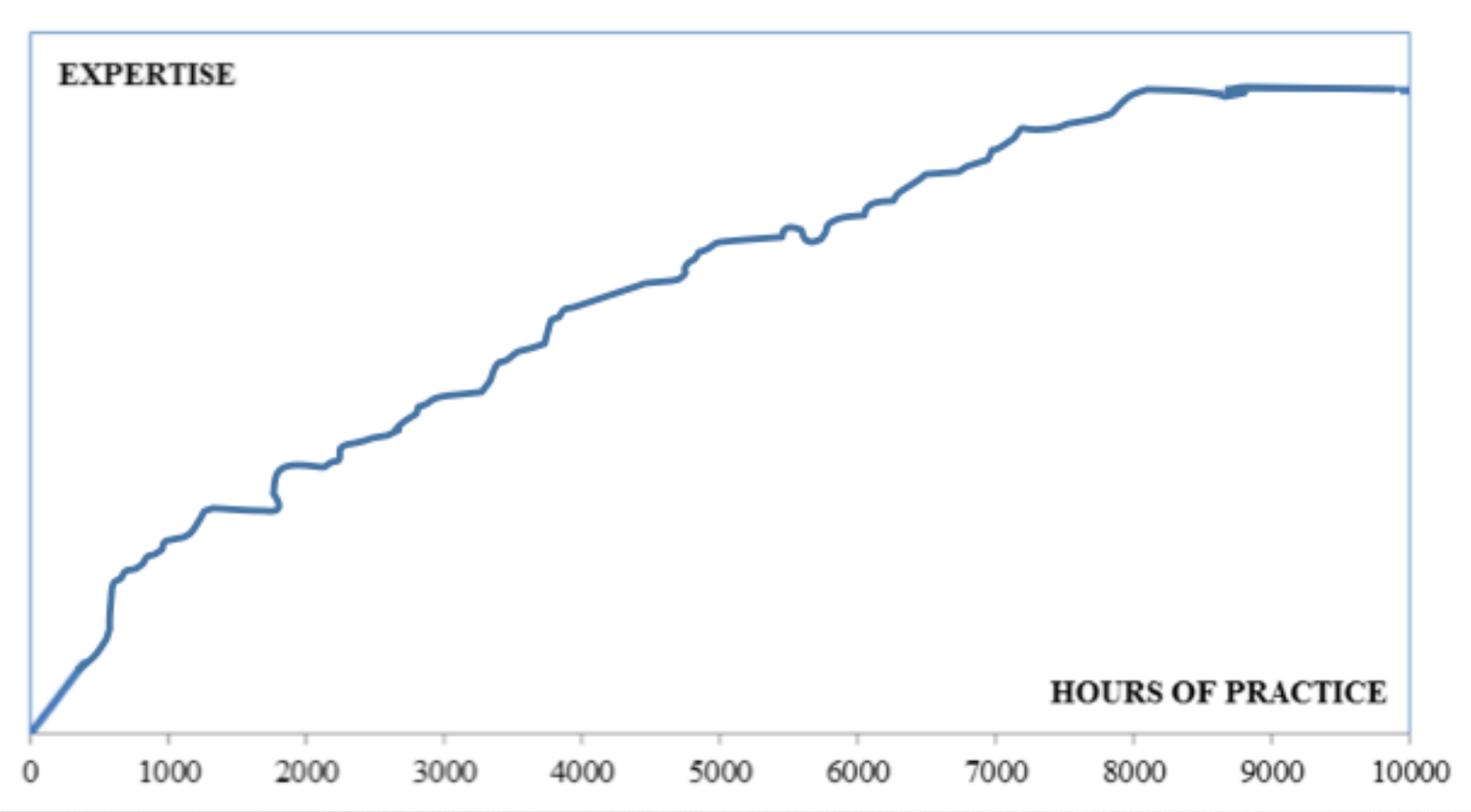
External Factors

- Input
  - Observational input
  - Interactional input
  - Instructional input
- Time on task
  - Quantity
  - Quality

IMPLIED MODEL OF EXPERTISE



MY BELIEF ABOUT EXPERTISE



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MOTIVATION

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PERSISTENCE!

MODEL FOR PERSISTENCE

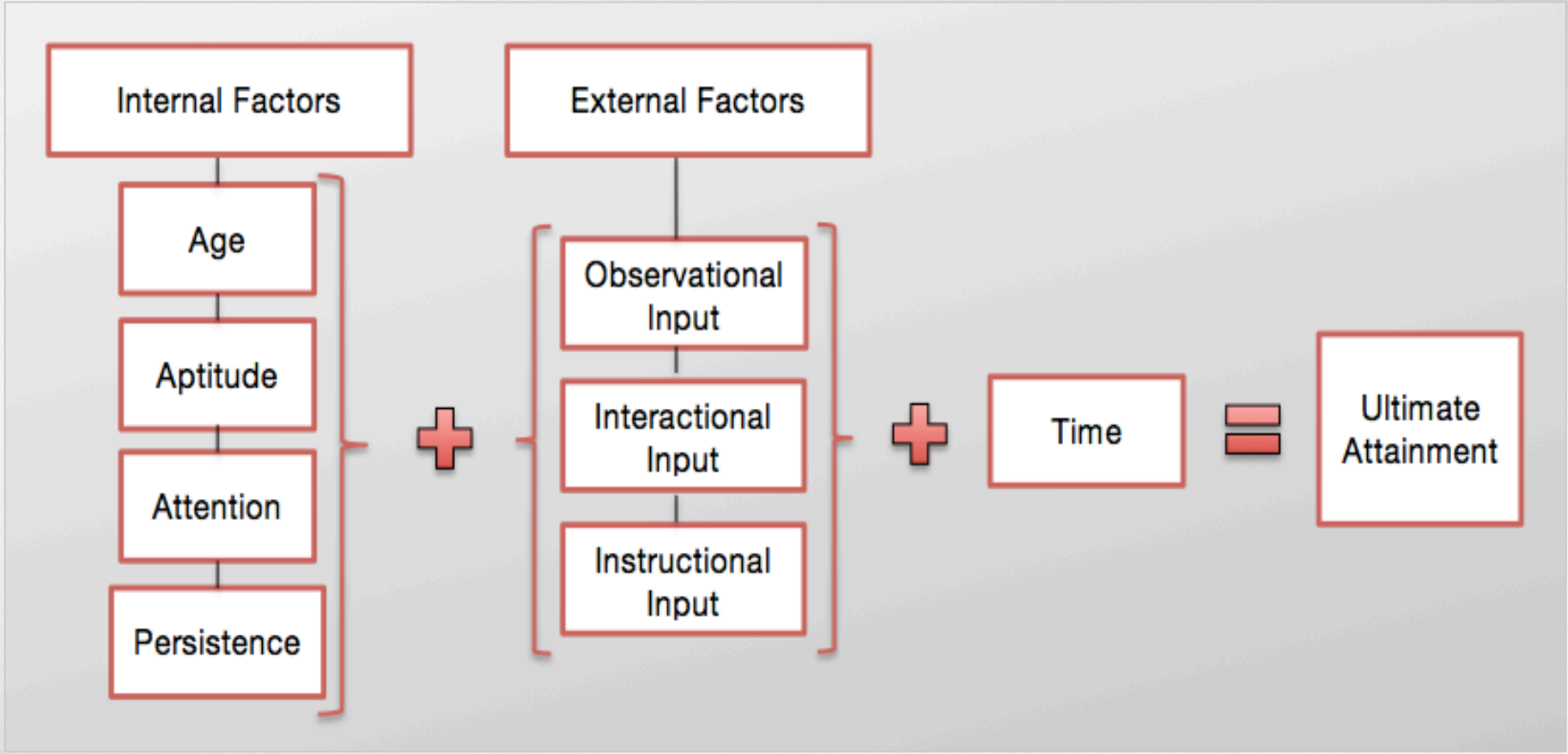
Catalysts	Internal	External
+ Desire	Intrinsic Motivation	Extrinsic Motivation
- Desire	Tenacity	Pressure

WHY PERSISTENCE IS THE KEY

Declarative Knowledge = Knowledge OF

Procedural Knowledge = Knowledge HOW

LEARNING MODEL



RECOMMENDATIONS FOR ALL LEARNERS

Learners

- Don't study without desire, OR...
- Develop desire
  - Intrinsic
  - Extrinsic
- Develop tenacity
  - Habit formation

Teachers

- Curate observational input
- Create opportunities for interactional input
- Provide instructional input
- Apply pressure

DIVERGING RECOMMENDATIONS FOR TEACHERS

Young Learners

- Use inductive teaching almost exclusively.
- Provide mostly implicit feedback.
- Use technology to make learning fun.

Adult Learners

- Use inductive teaching primarily but not only.
- Provide mostly explicit feedback.
- Use technology to customize input and to facilitate habit formation & learner autonomy.

PUTATIVE ADVANTAGES OF TECHNOLOGY

1. Increases Access
   - Eliminates geographical barriers (distance)
   - Facilitates asynchronous learning (time)
2. Improves Quality
   - Enables tailored/customized instruction
3. Increases Motivation
   - "Gamification"

RESEARCH FINDINGS
ONLINE VS. TRADITIONAL

Traditional > Online

Allen et al. (2012)

Johnson (2013)

Bergstrand & Savage (2013)

Wong & Fong (2014)

Online > Traditional

Chen et al. (2010)

Mortagy & Boghikian-Whitby (2010)

Shachar & Neumann (2010)

McGaghie et al. (2011)

No Difference

Jaggars and Bailey (2010)

Peachter & Maier (2010)

Rich & Dereshiwsky (2011)

Ni (2013)

RESEARCH FINDINGS
BLENDED VS. TRADITIONAL

1. The blended learning groups performed significantly better on objective achievement tests.
2. The results of qualitative measures also favor blended learning over so-called traditional learning.

THE PROBLEM IS…

RESEARCH FINDINGS
BLENDED VS. TRADITIONAL

Most studies did not control for time on task.

SO…

CONCLUSIONS

1. The goal of any learning environment should be to maximize learner time of task.
2. To maximize time on task, learners must persist.
3. The primary job of teachers is to help learners persist.
4. Technology, particularly in the absence of desire, can help increase learner persistence, particularly through habit formation.

HOWEVER…

CONCLUSIONS

Learners rarely persist when studying in isolation.

THEREFORE…

CONCLUSIONS

The most fundamental goals of technology use in language learning should be to provide:

- learners ample curated input, AND
- an online platform that not only brings learners together synchronously, BUT ALSO
- forces them to use the language as a means to an end rather than an end unto itself.

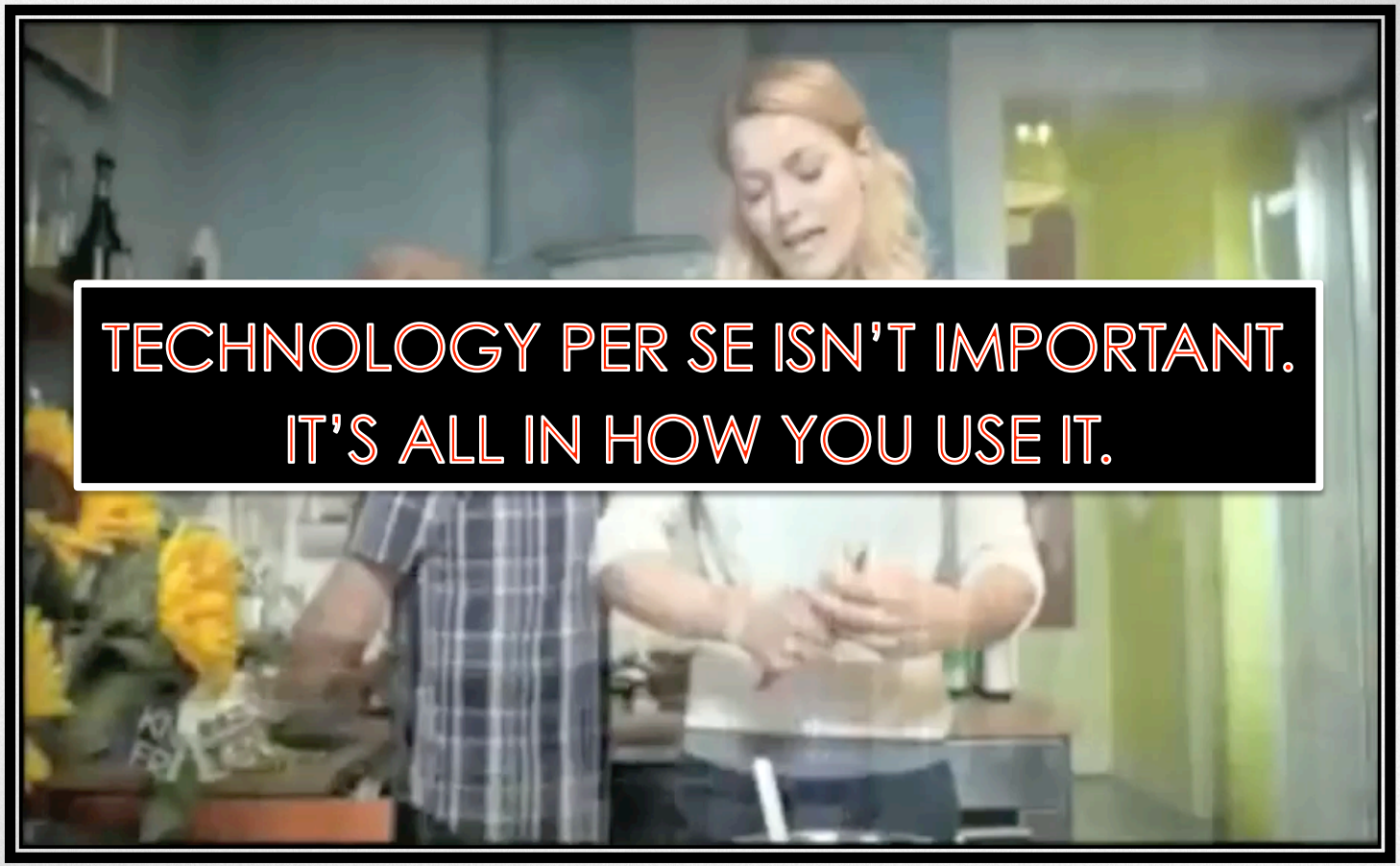
HOWEVER…

A WORD OF CAUTION

While technology can theoretically facilitate learning,…

…it is not because of the technology per se.

THE MORAL OF THE STORY?



2 KEYS TO TECHNOLOGY USE

1. Technological competence

2. Pedagogical competence

But how do you keep up?

I DON'T KNOW

Just kidding!

Sort of…

ASK YOURSELF THESE 5 QUESTIONS

How can I leverage this technology to…

- increase the amount of exposure to the target language learners are receiving?
- increase the amount of time learners interact with each other *and the language* in meaningful communicative situations?
- tailor the learning experience to maximize the relevance and importance to each learner?
- increase learner autonomy?
- increase habit formation?

THE BOTTOM LINE…

"New technology is common; new thinking is rare."
- Sir Peter Blake

PERSISTENCE IS EVERYTHING

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THANK YOU

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