VitalSource™

Who am I?

Rick Johnson

VP of Product Strategy
VitalSource Technology

Co-founder of VitalSource
Board member of IMSGlobal
Board member of IDPF (EPUB)
Co-Chair of W3C Publishing Business Group
Co-Chair of W3C Publishing Steering Committee
3 International Patents on ebook distribution technologies

The power of data!

- LTI and Caliper are not just for the browser!
- Engagement data provides:
  - Clear insight to trends in pass/persistence
  - Clear relationship between student behaviors and outcomes
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    - Strong prediction of outcomes by week 2
- Access to usage data can power intervention

VITALSOURCE

A Trusted Partner for Nearly 20 Years

21 MILLION

STUDENT USERS

and 1 milllion faculty
at 7000 institutions

5300

DIRECT INTEGRATIONS WITH CUSTOMERS

INTEGRATIONS

3600 additional schools/bookstores
reached through partners

350,000

COURSE SECTIONS

with direct integration
to Bookshelf

7600

APIS

active integrations with 4600
partners and institutions

2.9 MILLION

PRODUCTS OFFERED

from 1,400 publishers

VITALSOURCE

Last 12 Months, By the Numbers

7.8 MILLION

UNIQUE USERS

in 241 countries and territories

24 MILLION

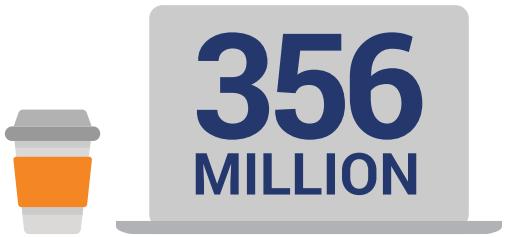
TITLES READ

from 1,400 publishers

3.4 BILLION

PAGE VIEWS

saving approximately 384,000 trees



STUDY SESSIONS

totaling 3.6 million days of study time in Bookshelf

231 MILLION

ANNOTATIONS

notes and highlights added

112 MILLION

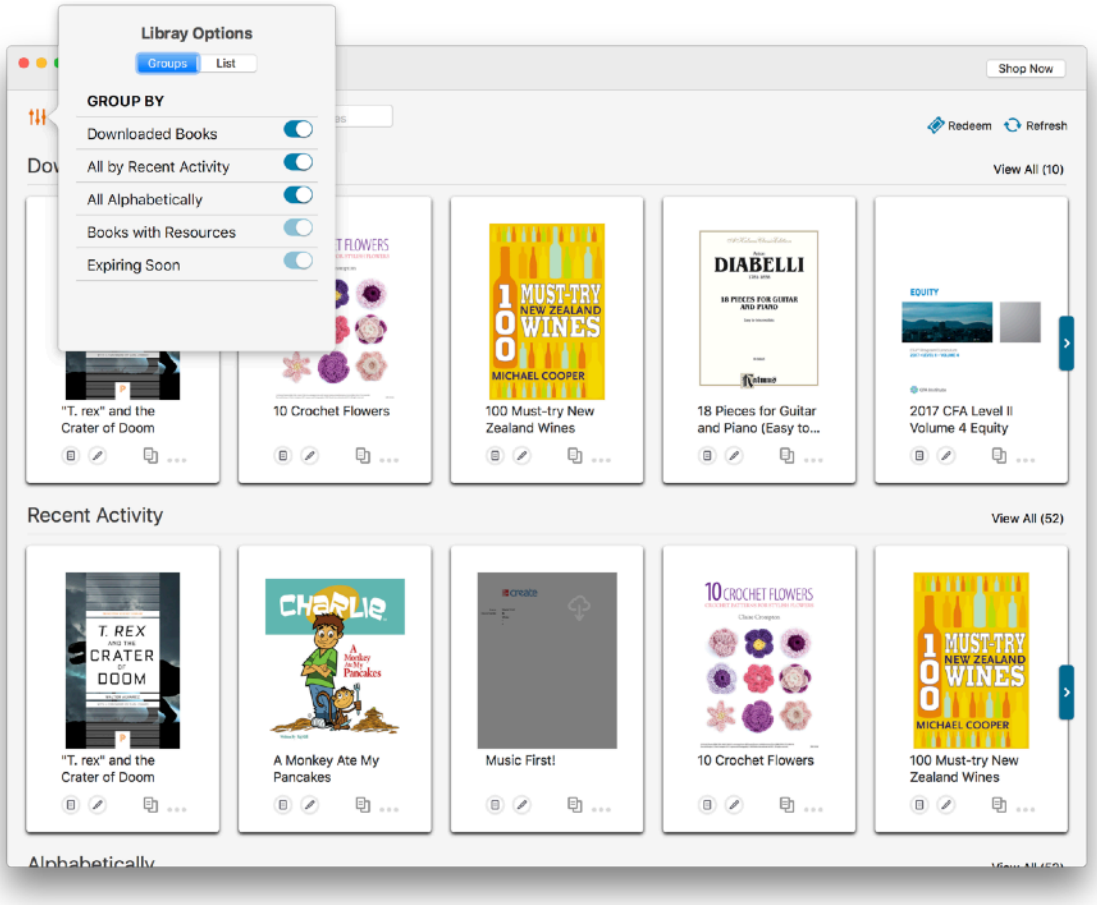
SEARCHES

for words and phrases

Bookshelf
The world's #1 digital content platform
Any device or browser
Cloud based account
100% offline access
kindle fire
chromebook

Bookshelf keep on improving

- New mobile apps this week!
  - Updated User Interface
  - Improved Read-aloud
  - WCAG 2.0 AA
- More Updates + Mac/Windows in Q1
  - Reading Assignments
  - Flashcards
  - Video Assets
  - Improved Highlighting UX



LTI and Caliper with Browser and Native Apps

IMS GLOBAL®

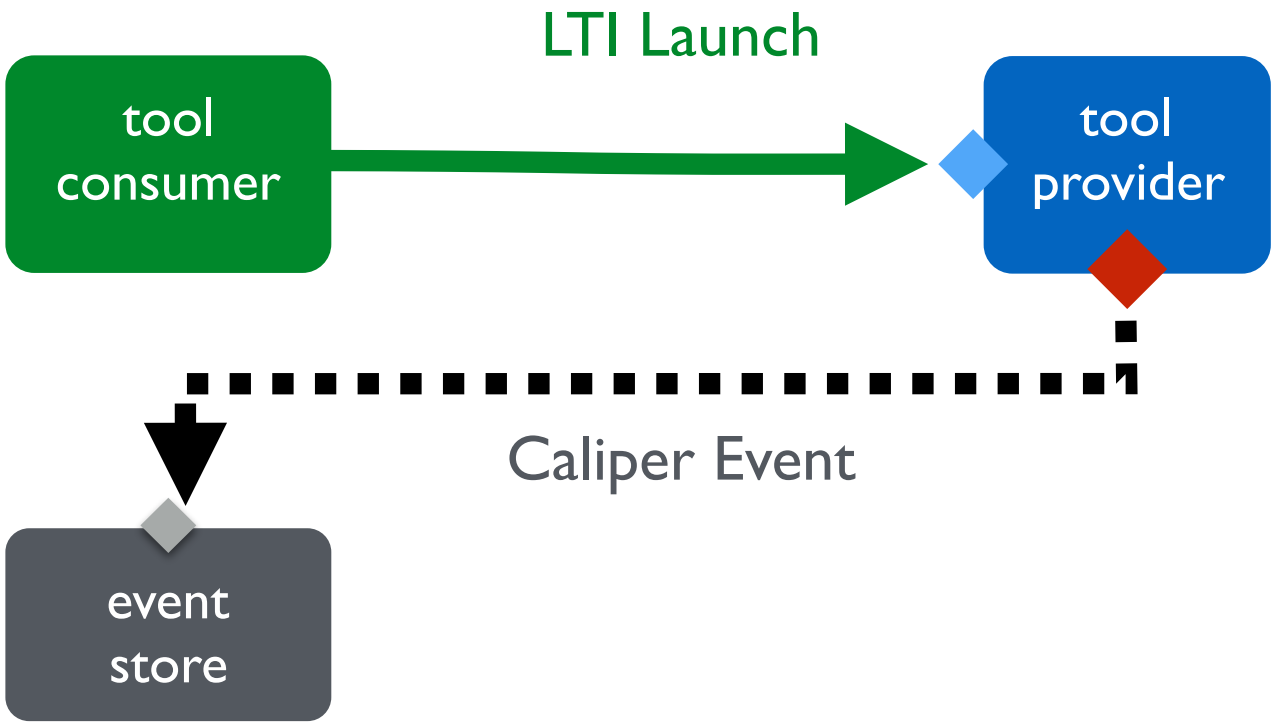
CERTIFIED

Current Registrations:
imscert.org

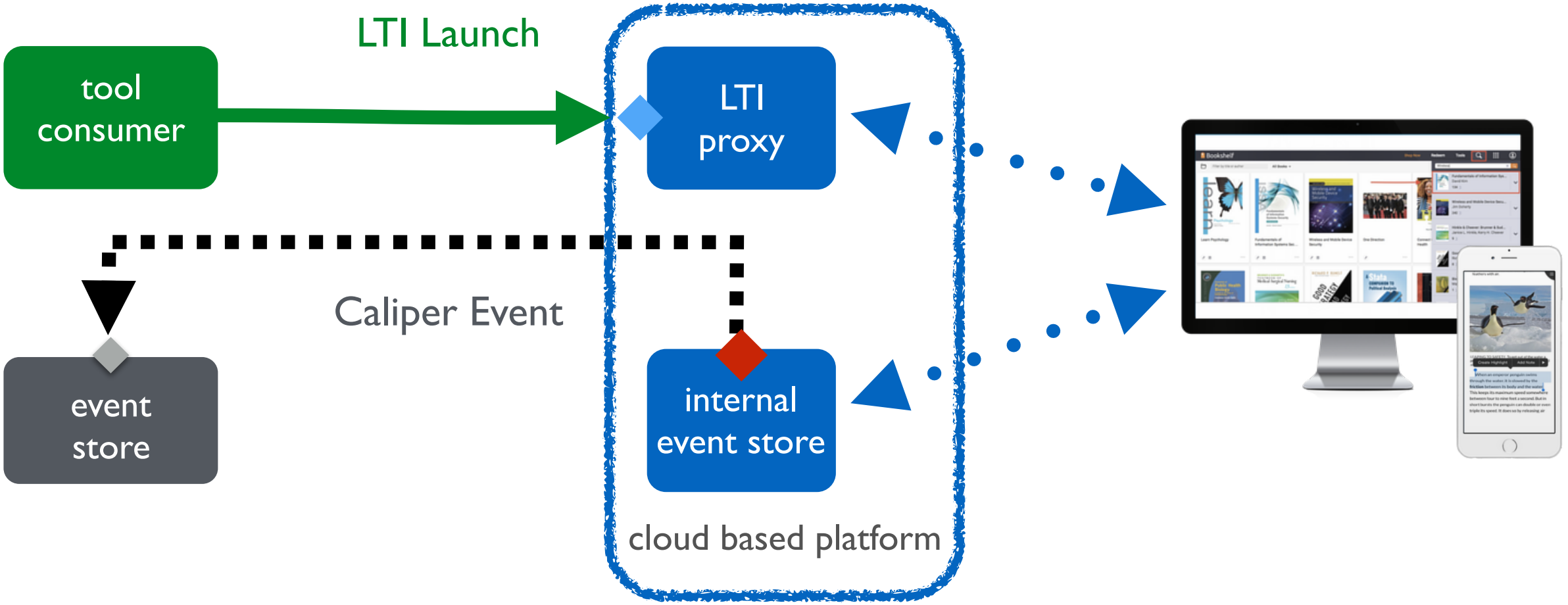
LTI

Caliper

LTI and Caliper with Browser and Native Apps



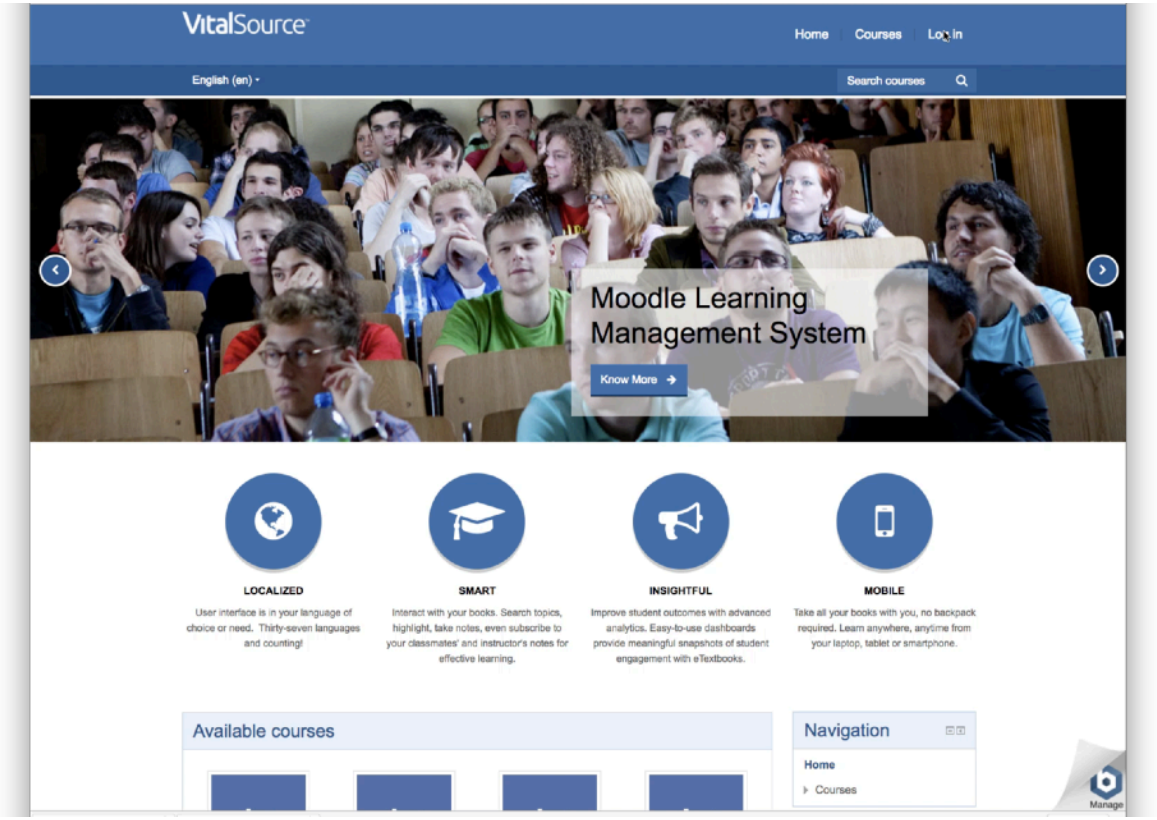
LTI and Caliper with Browser and Native Apps



What the user experiences in an LTI launch…

- Single Click on a link for access to content
- Supports automatic provisioning, and student opt-out choices
- Automate 3 steps:
    1. *Setup user account*
    2. *Provide access to the content*
    3. *Open the book (deep links supported)*

Connecting to your VLE/LMS



brightspace by D2L

canvas

moodle

Blackboard

Shibboleth

Sakai

schoology

its learning

EDUonGo

OpenAthens

SAML v2.0 Security Assertion Markup Language

anewspring

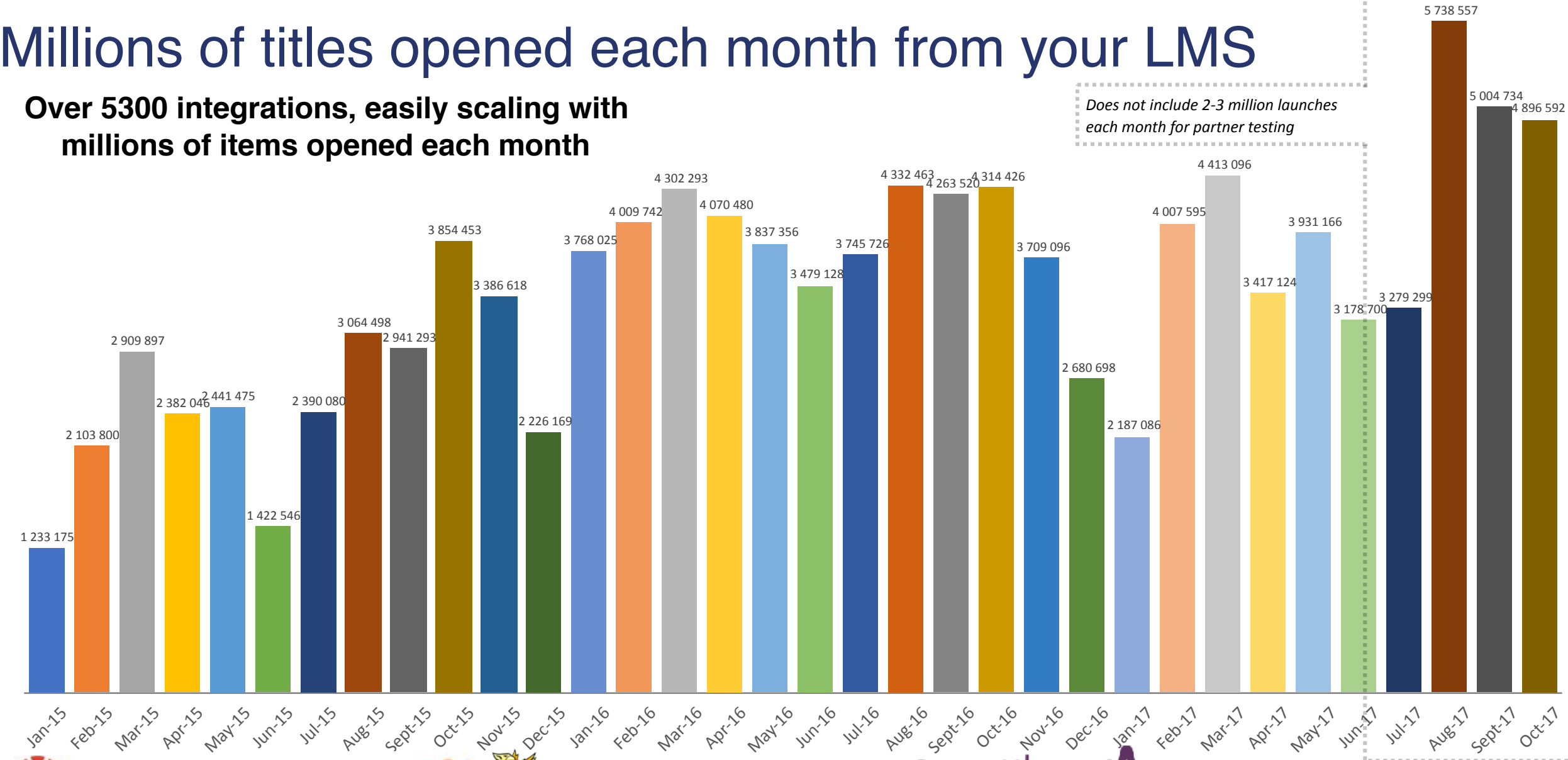
SEQTA

SharePoint

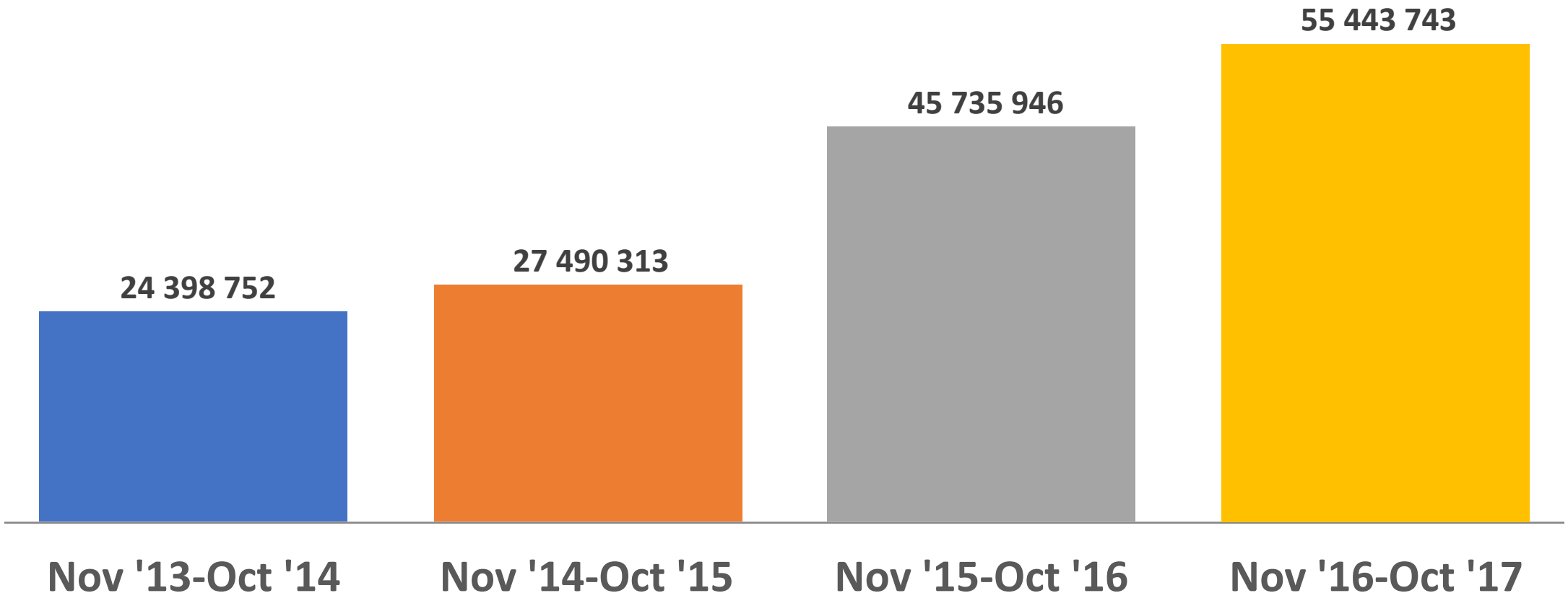
Millions of titles opened each month from your LMS

Over 5300 integrations, easily scaling with millions of items opened each month

Does not include 2-3 million launches each month for partner testing

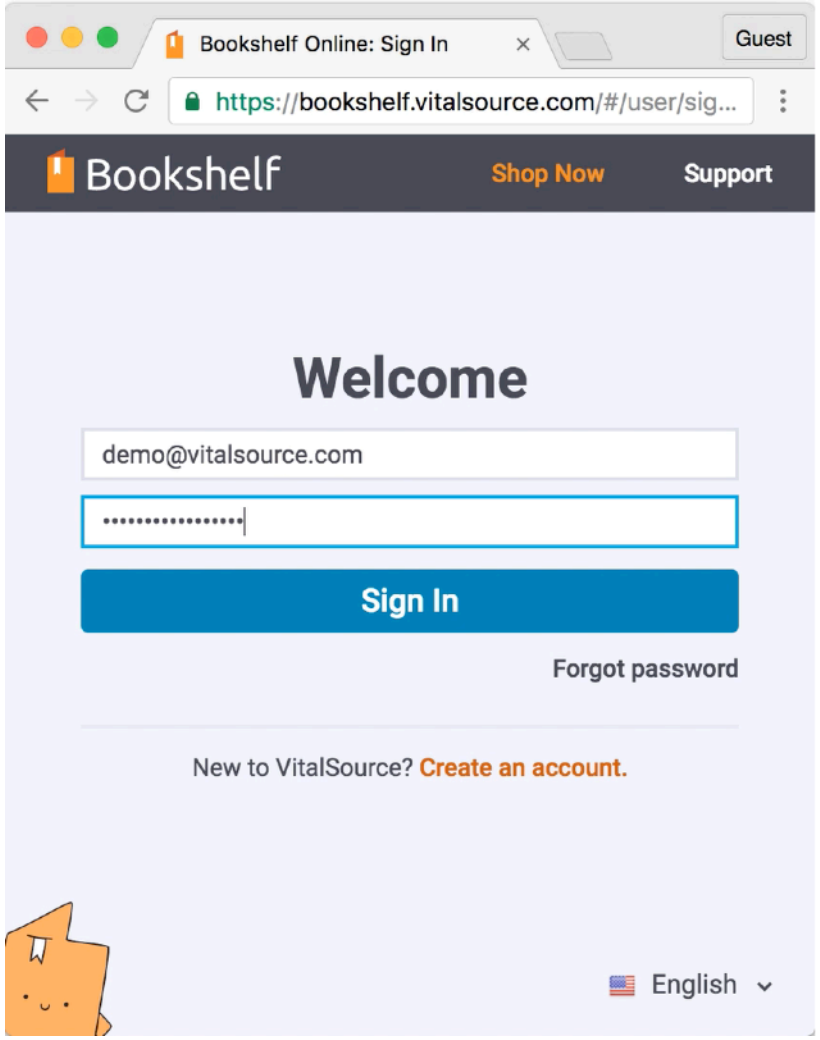


Books opened via LTI launch



Sept-Nov 2017

Content Driving Realtime Events



Learner

Book

Chapter

Did you notice all the data?

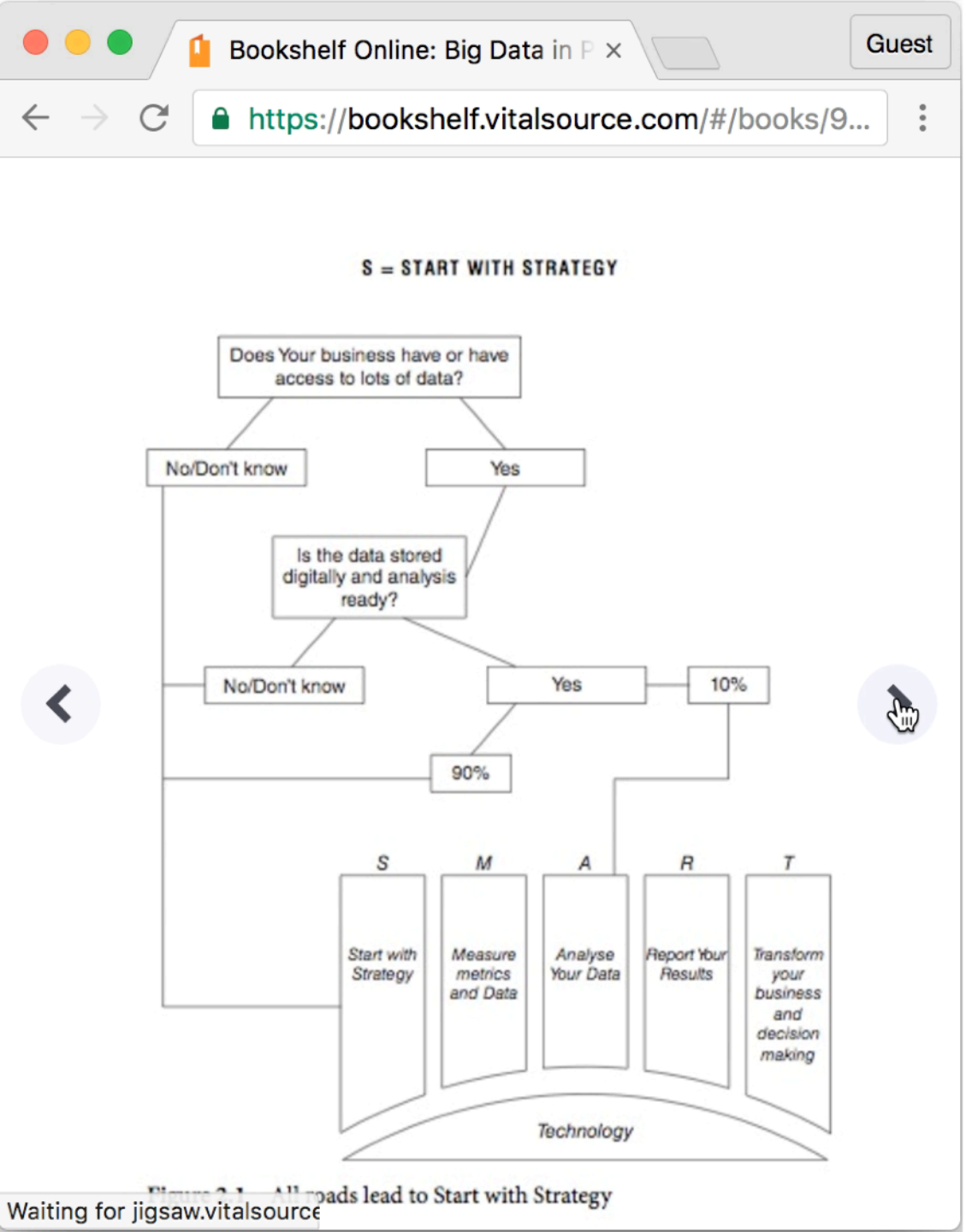
Logout

Login

Highlight

Page View

Note



Highlights

annotationEvent: highlighted


```
{
  "@context": "http://purl.imsglobal.org/ctx/caliper/v1/Context",
  "@type": "http://purl.imsglobal.org/caliper/v1/AnnotationEvent",
  "actor": {
    "@id": "https://api.vitalsource.com/users/demo"
  },
  "action": "http://purl.imsglobal.org/vocab/caliper/v1/action#Highlighted",
  "object": {
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    "@type": "http://www.idpf.org/epub/vocab/structure/#bodymatter"
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    "annotated": "https://api.vitalsource.com/products/9781119231417/25"
  },
  "eventTime":  "2016-01-31T15:01:50.001Z",
  "edApp": {
    "@id": "https://bookshelf.vitalsource.com",
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    "@type": "http://purl.imsglobal.org/caliper/v1/SoftwareApplication"
  }
}
```
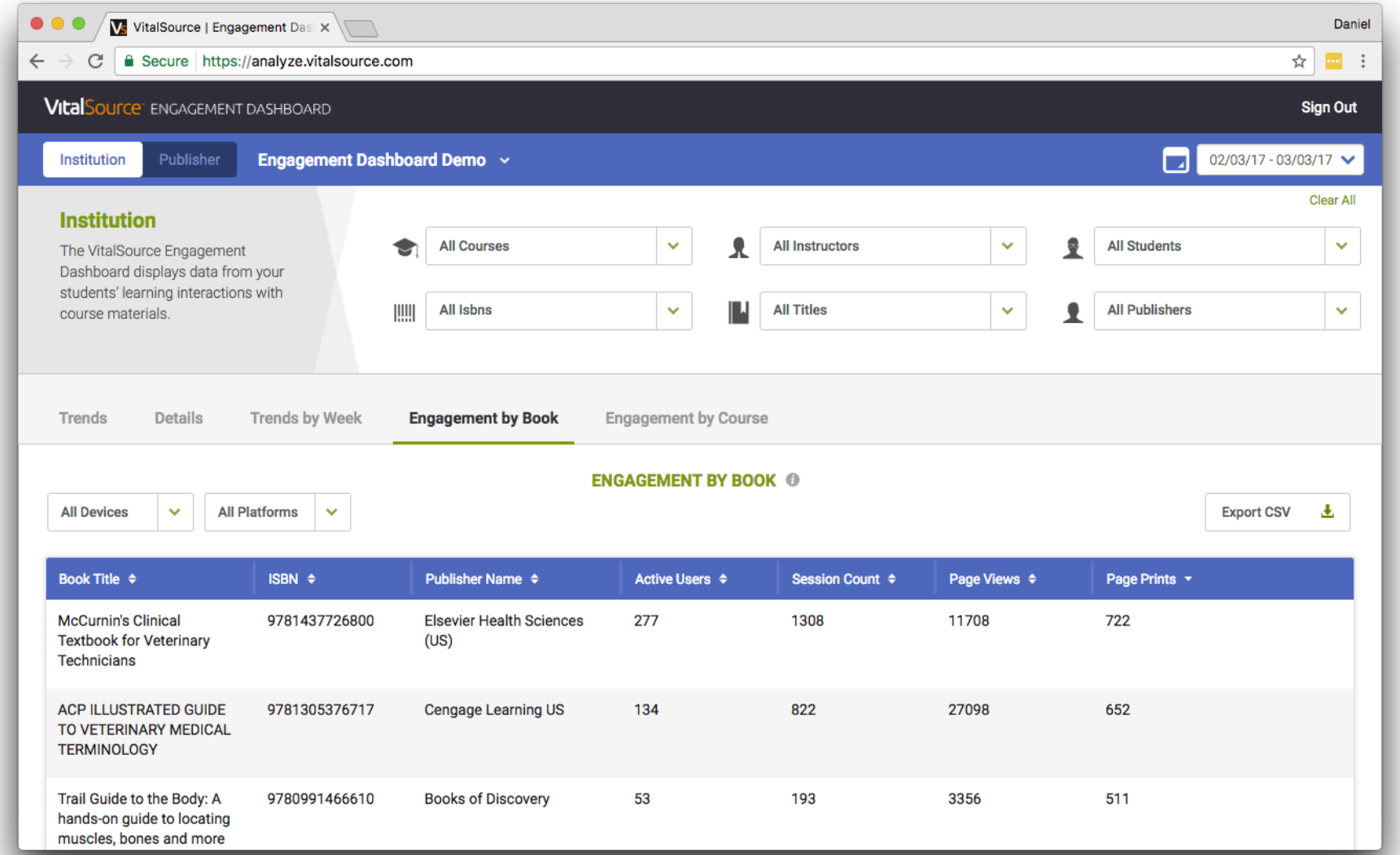

Engagement Analytics

- Clients feed an internal representation of the data
- Delivered three ways:
    1. As a set of dashboards
    2. As a Caliper file for a given time span (i.e. daily, weekly)
    3. As a real time Caliper feed delivered to the customers data store

        (real time: Within 60-100 seconds of the event happening, the Caliper payload is delivered to the customer data store)

Engagement Data – By School, By course, By student

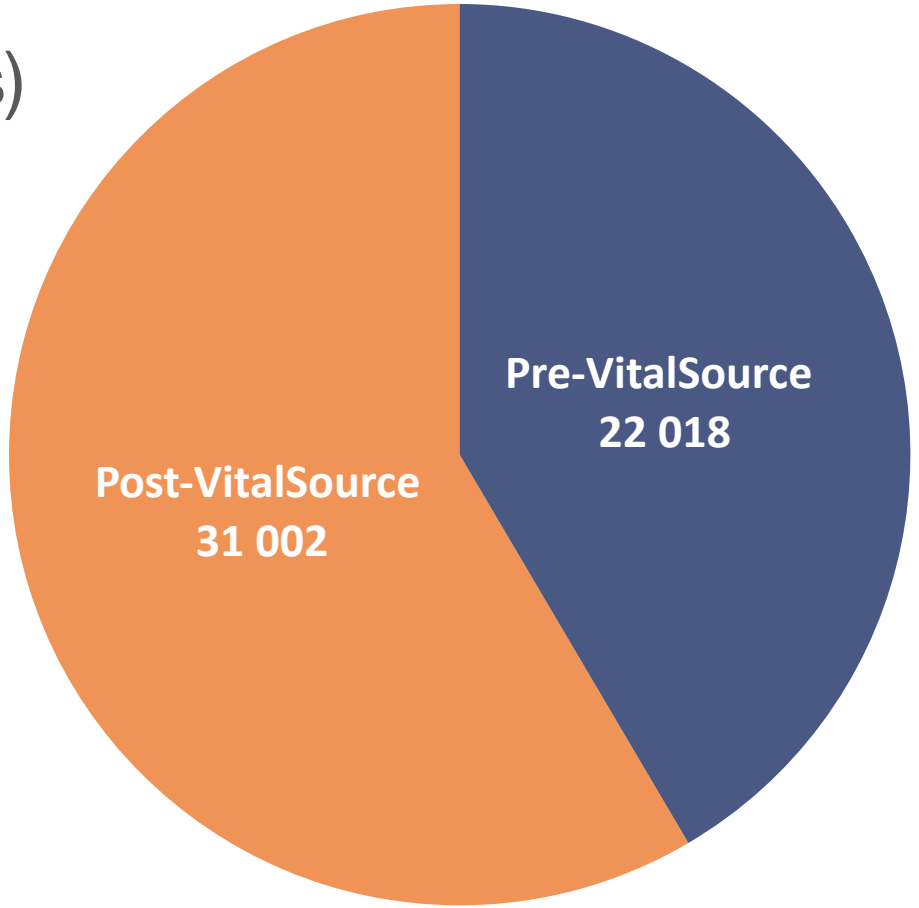


“What is the efficacy of this data?”

efficacy | *ˈefəkəsē* |
noun
the ability to produce a desired or intended result

The Project…

- 53,000+ students in 2 courses (multiple terms)
- Pre- and post-VitalSource data
- Pair engagement data with outcome data for analysis
  - Analyzed overall pass and persistence trends
  - Paired roster with engagement data
  - Analyzed engagement trends in aggregate
  - Stratified student behavior patterns by outcome



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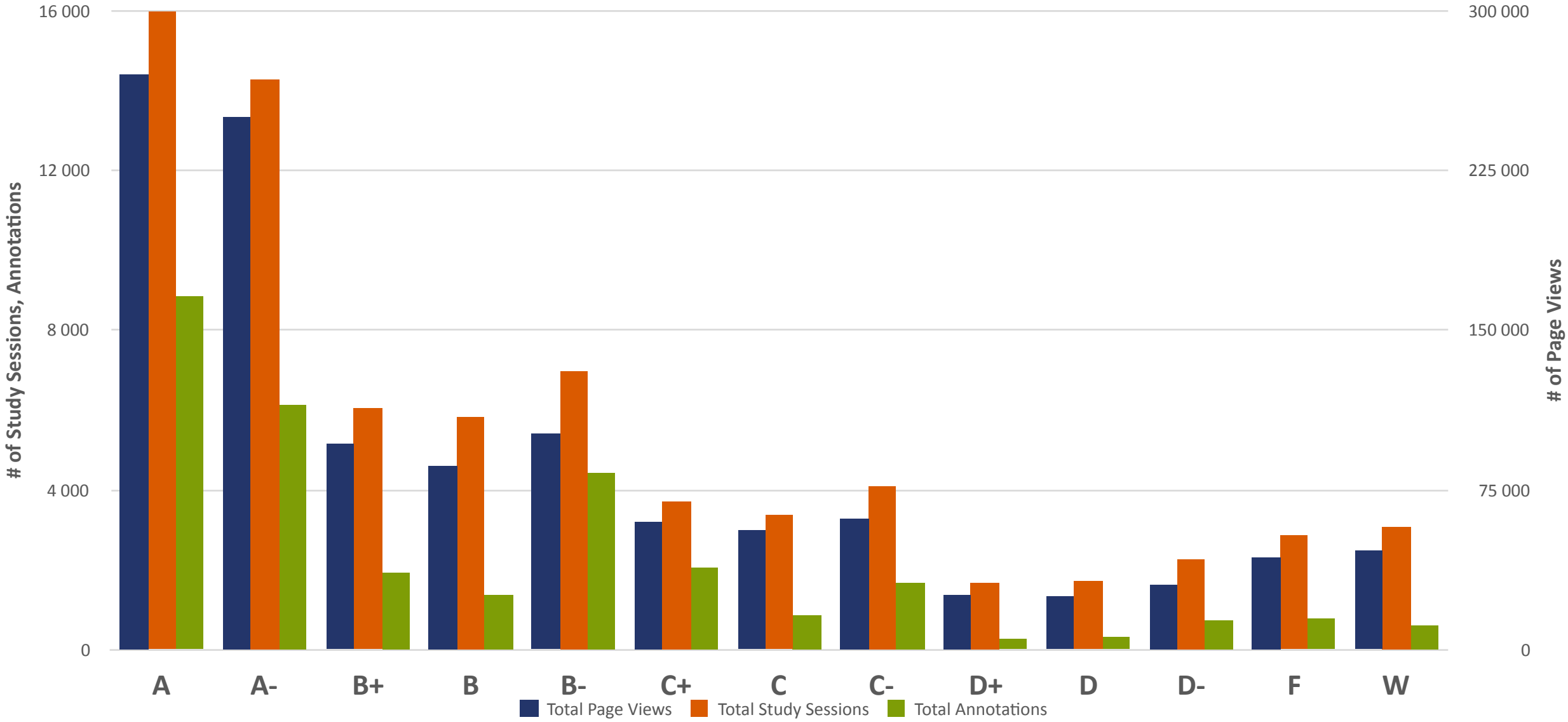
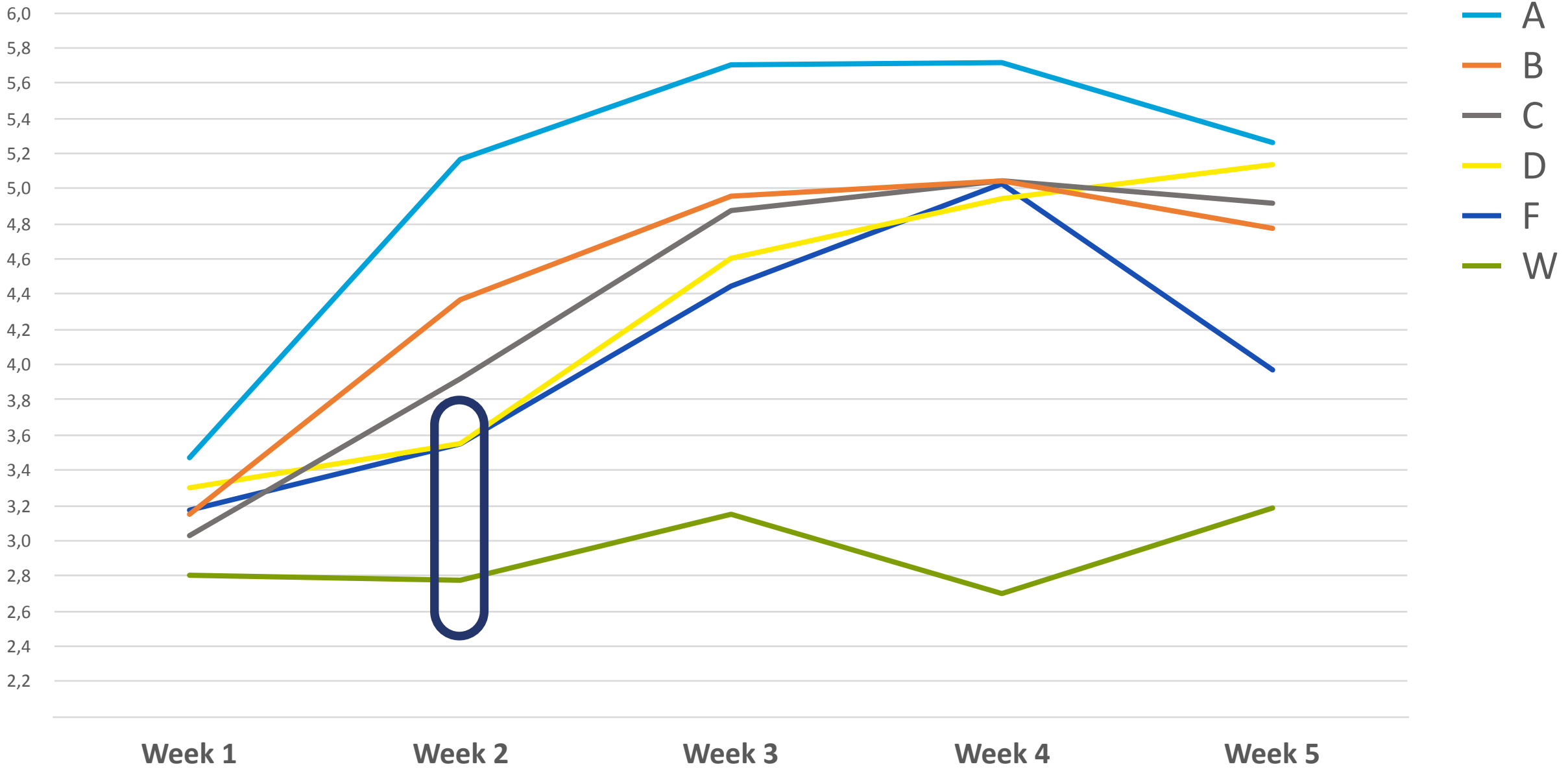
Engagement Markers by Outcome



Study Sessions Per Week

Behavior in week 2 predicts outcome



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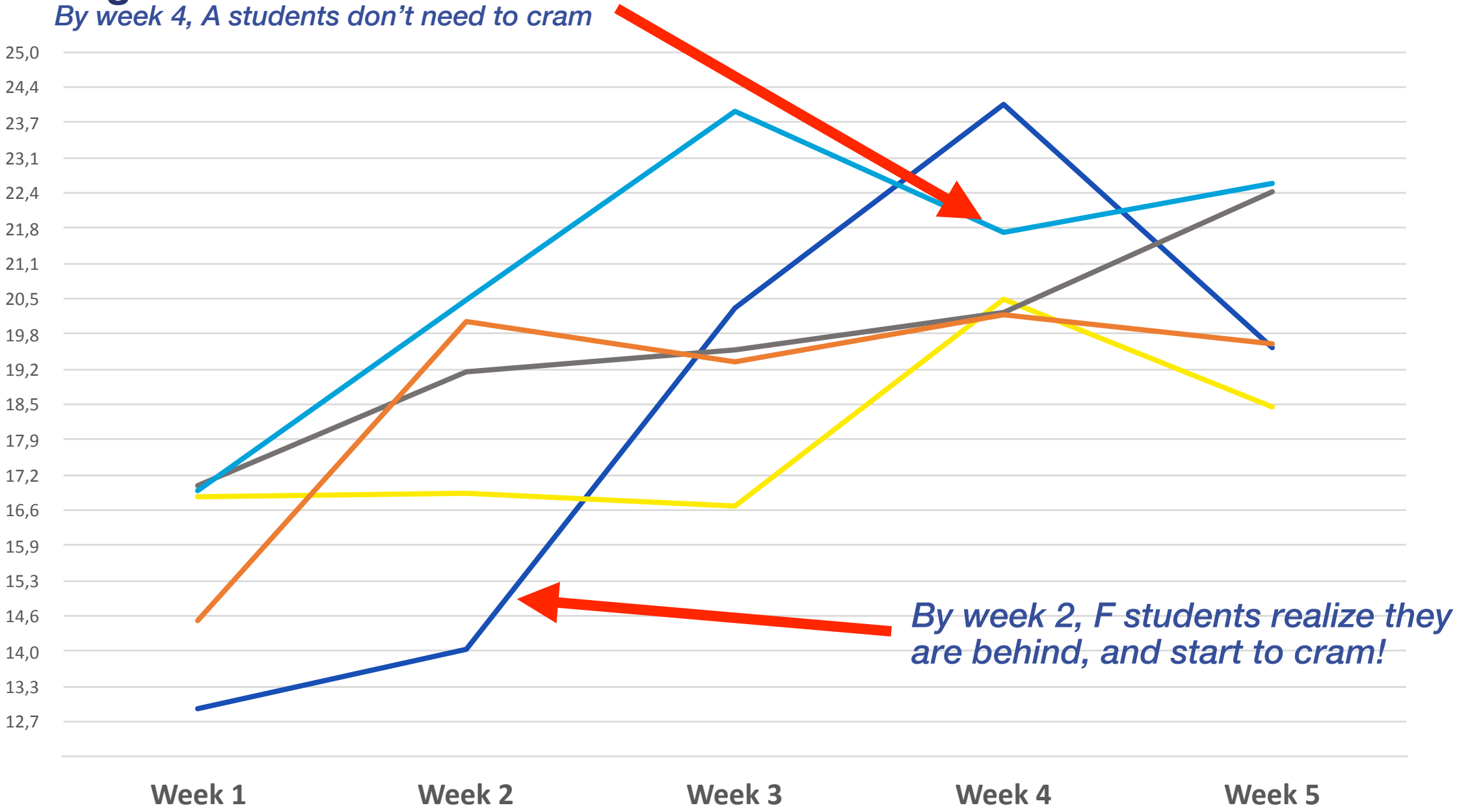
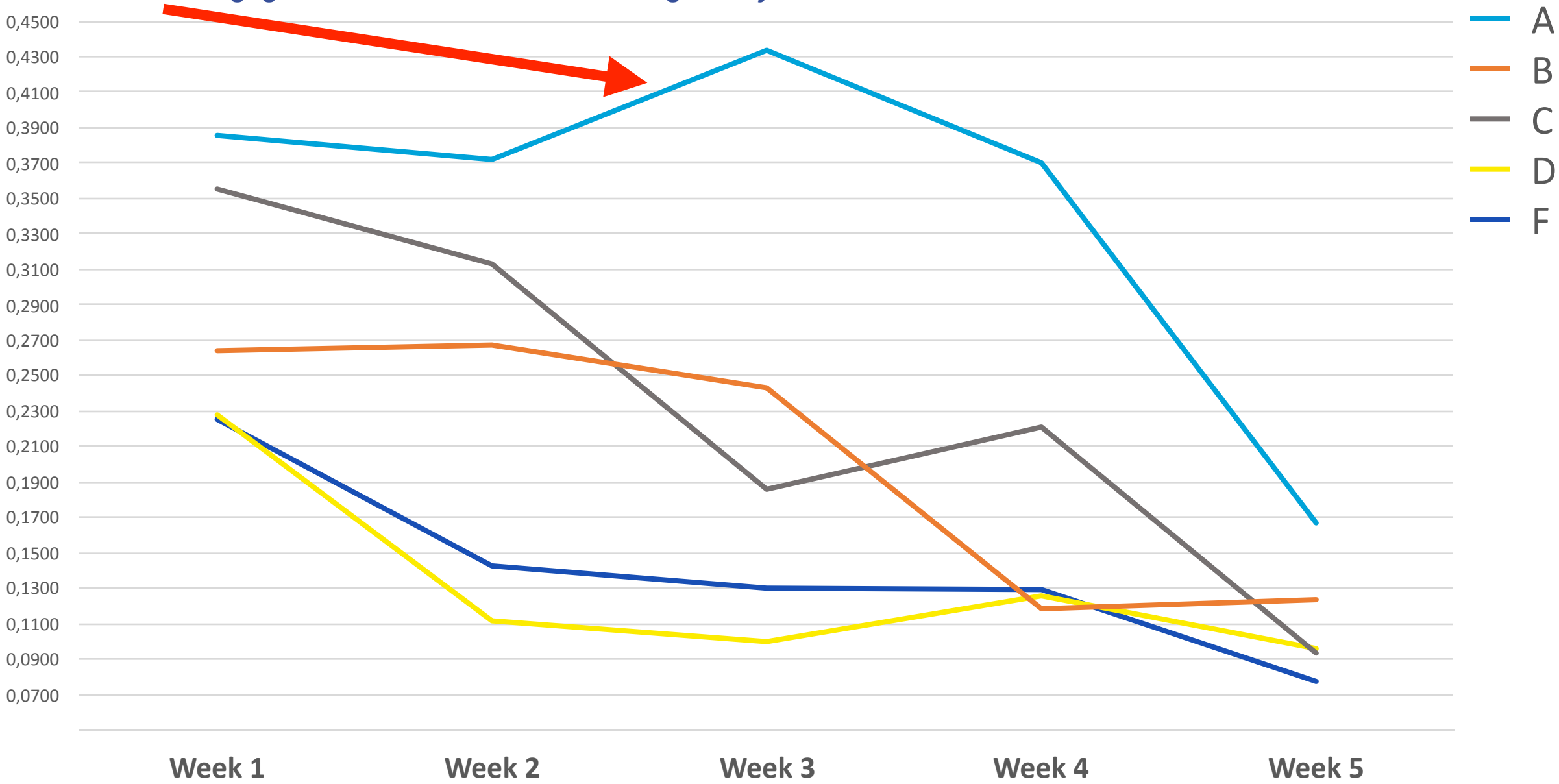
Pages Per Session

By week 4, A students don't need to cram



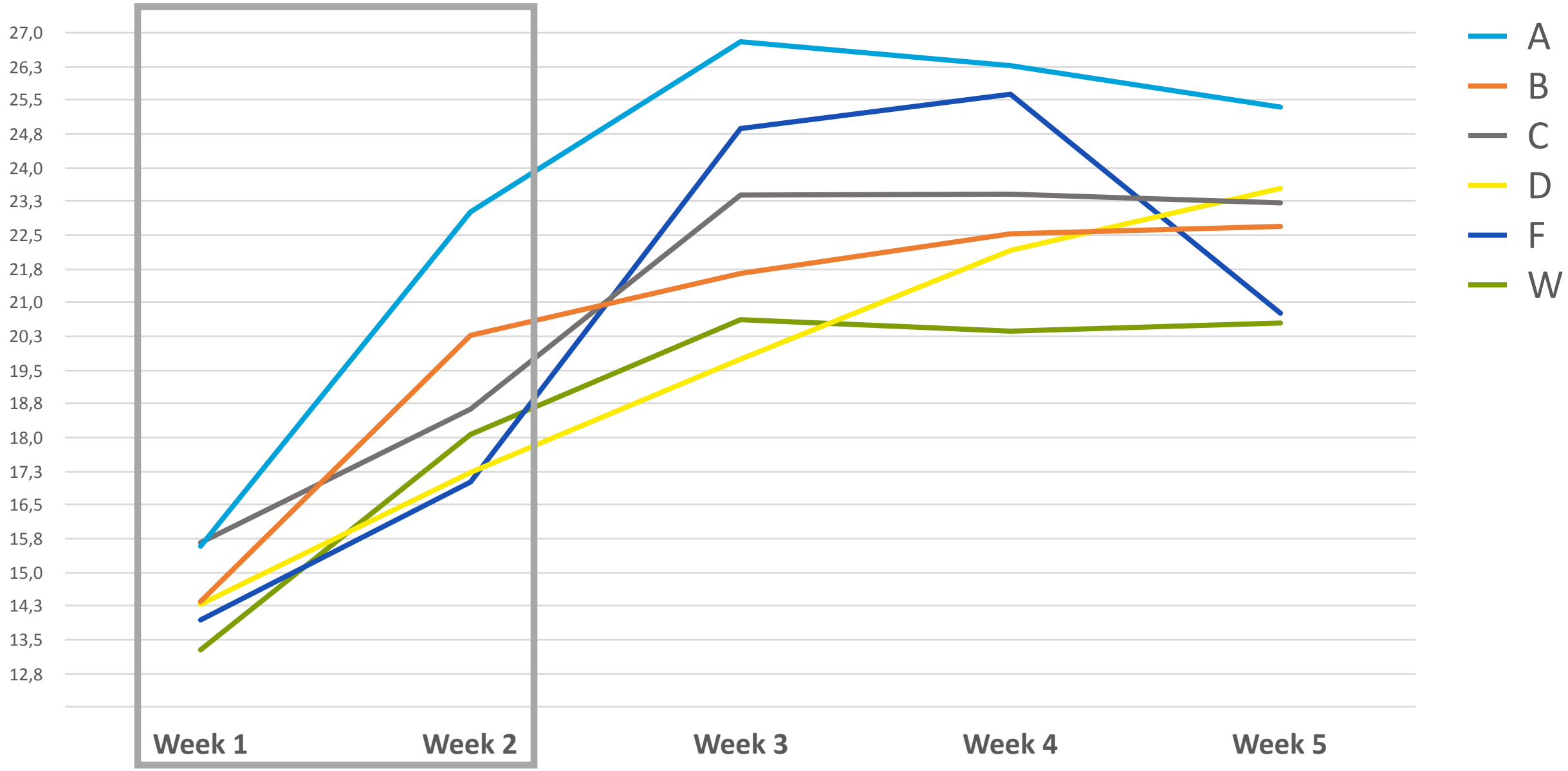
Annotations Per Session

A students engage with content in most meaningful way



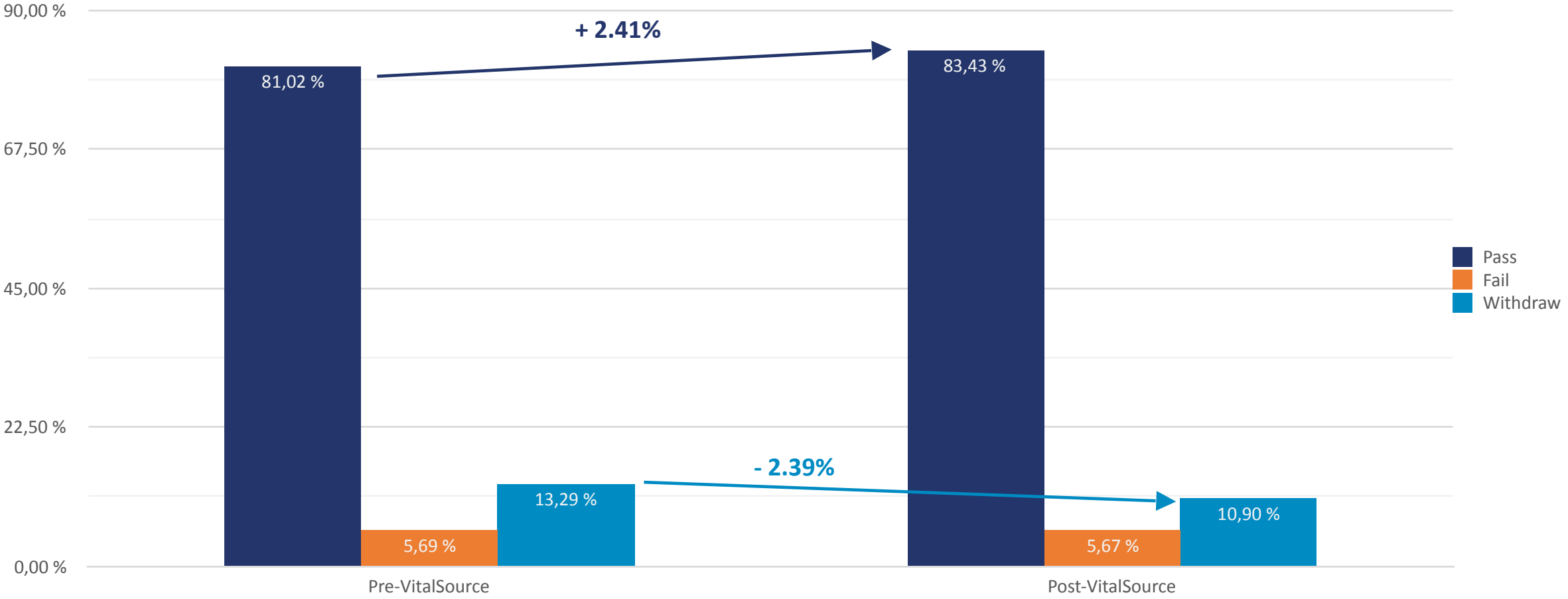
Minutes Per Session

More reading time earlier in the course leads to better outcome



Student Outcomes

- Withdraw rate decreased 2.39%
  - About 500 students per year, just in these two courses
- More students staying enrolled, and those students are passing



Caliper data, driven from an LTI launch provides:

- Correlation between engagement and outcome
- Strong early indicators of outcome are evident
  - Early enough for intervention

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