

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**
 - Top-performing students have **more – and more meaningful – interaction** with course materials
 - **Strong prediction** of outcomes by week 2
- Access to usage data can **power intervention**



A Trusted Partner for Nearly 20 Years



21 MILLION

STUDENT USERS

and 1 million 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

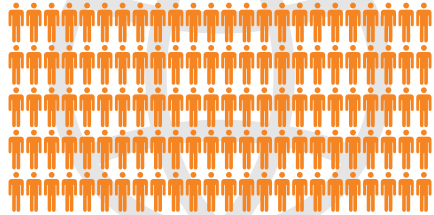
MILLION

PRODUCTS OFFERED

from 1,400 publishers

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

356
MILLION



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



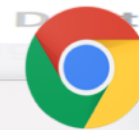
Bookshelf

The world's #1 digital content platform

- Any device or browser
- Cloud based account
- 100% offline access



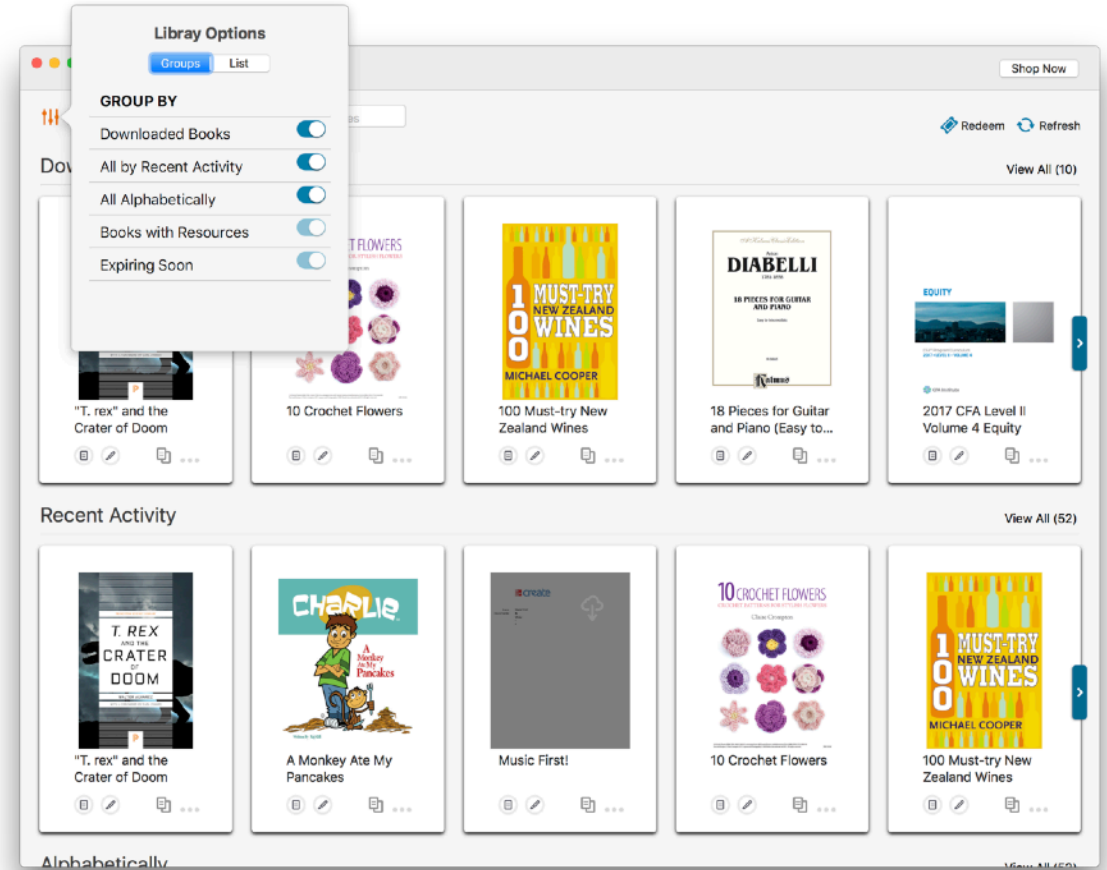
kindle fire



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[®]



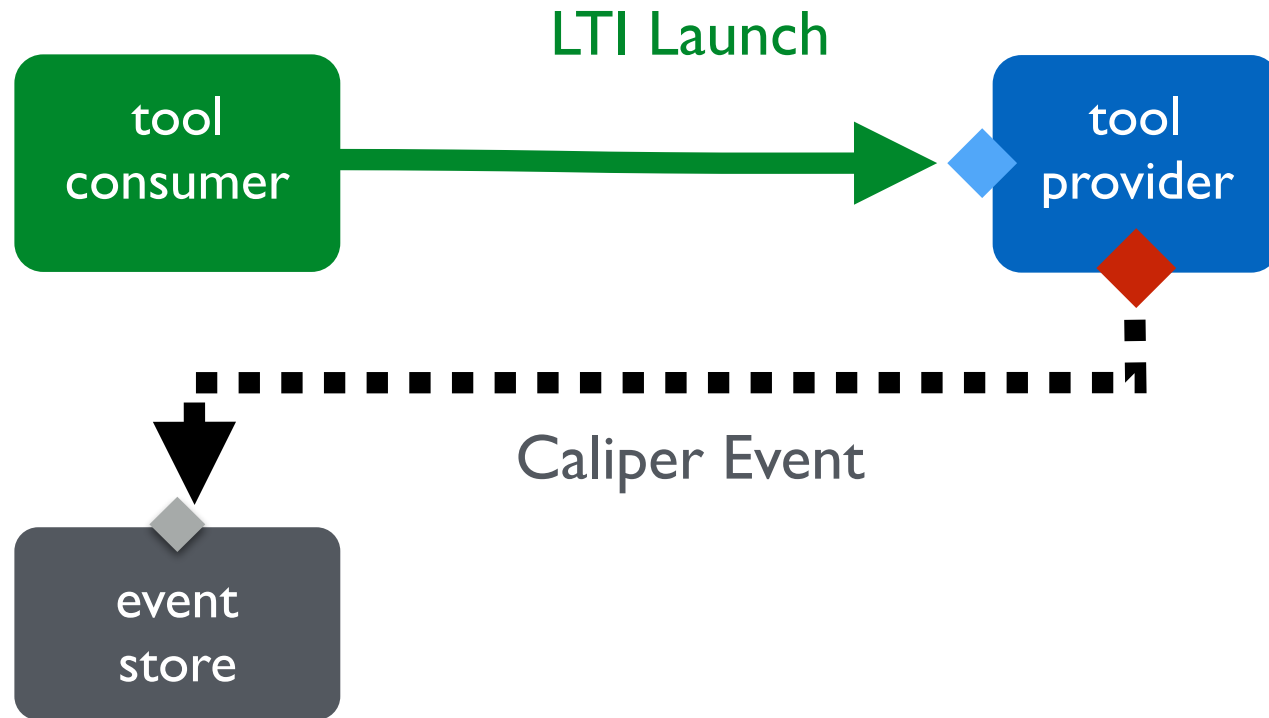
Current Registrations:
imscert.org

LTI

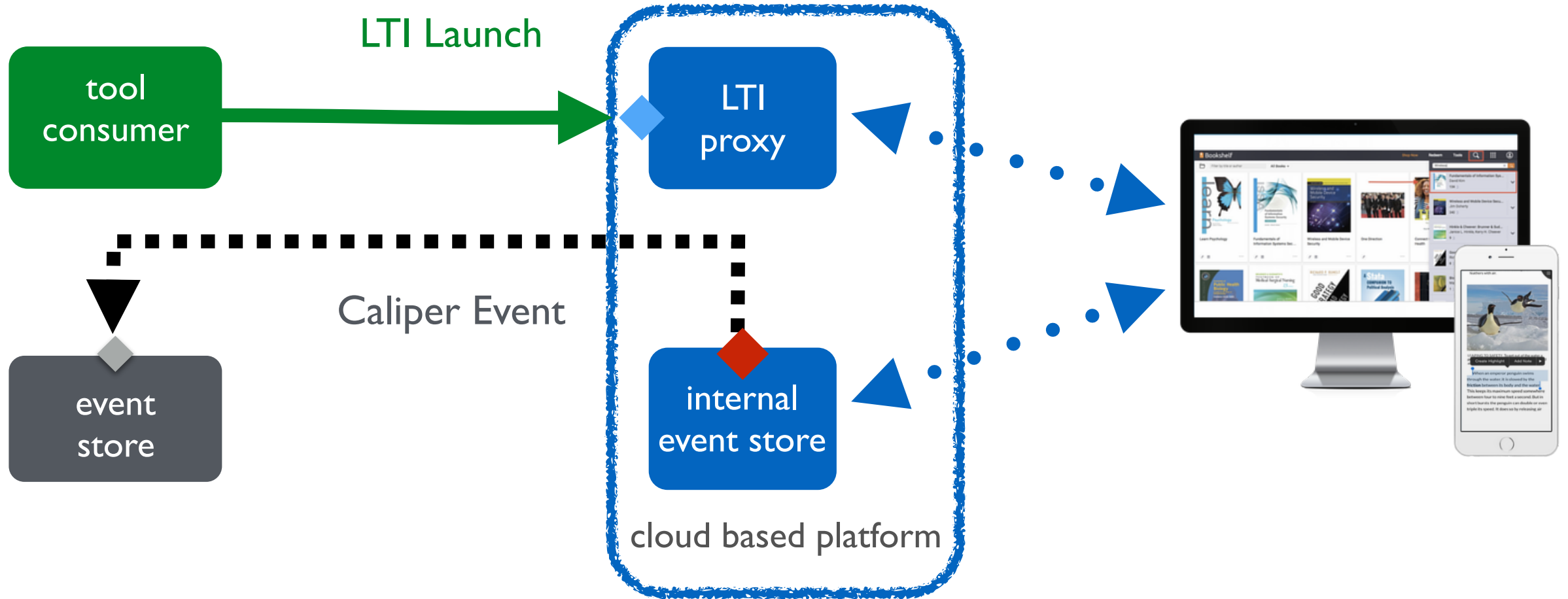
Caliper



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)

The screenshot illustrates the user experience in an LTI launch. It shows a web browser window displaying the VitalSource interface. On the left, a navigation menu is visible with options like 'Medical Surgical Nursing', 'Home Page', 'Content', 'Discussions', 'Groups', 'Tools', and 'Help'. The main content area displays a list of books, including 'Brunner & Suddarth's Textbook of Medical-Surgical Nursing' and 'The Language of Medicine'. A red arrow points from the 'Unit 1: Basic Concepts in...' link in the second book entry to a 'Table of Contents' overlay. This overlay shows the book's title, author, and a list of chapters: 'Cover', 'Title Page', 'Dedication', 'Copyright', 'Preface', and 'Acknowledgments'. The background shows the book cover for 'The Language of Medicine' by Davi-ElLEN Chabner, 10th Edition, published by Elsevier. The interface also includes a 'Labs' section with a 'ROOKIES' feature and a 'Read Aloud' button.

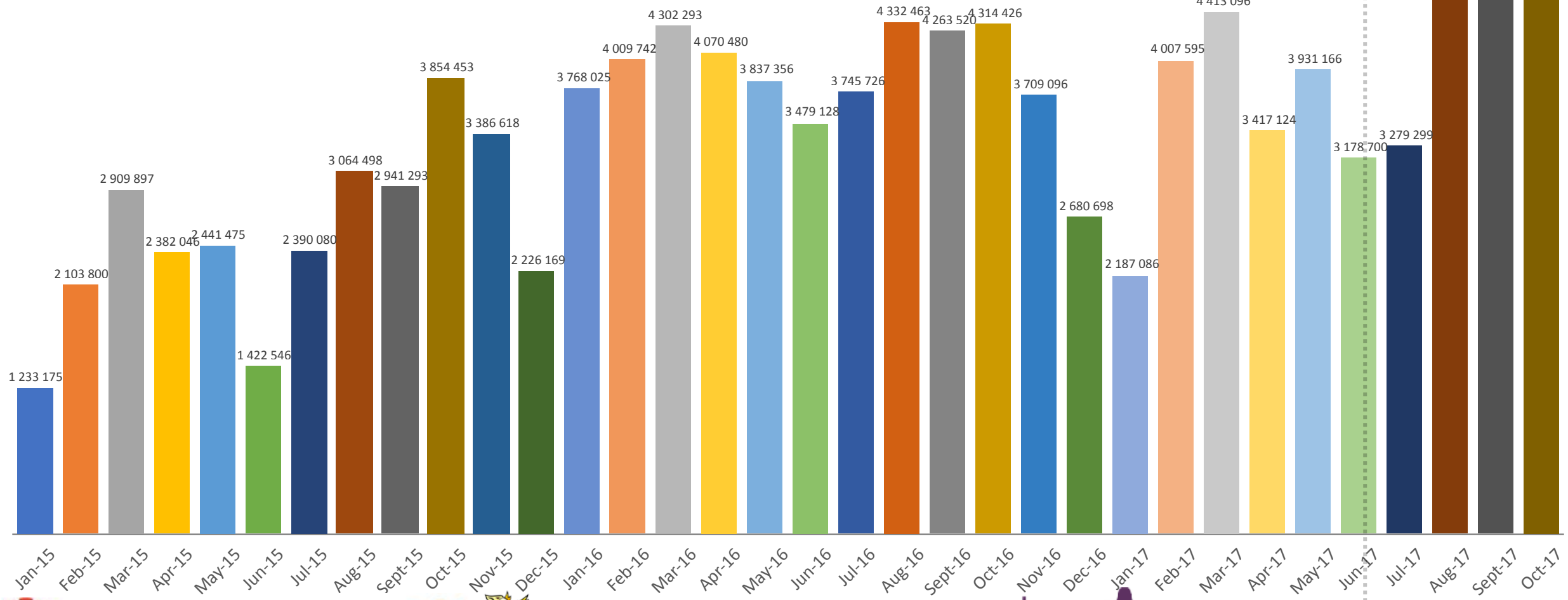
Connecting to your VLE/LMS



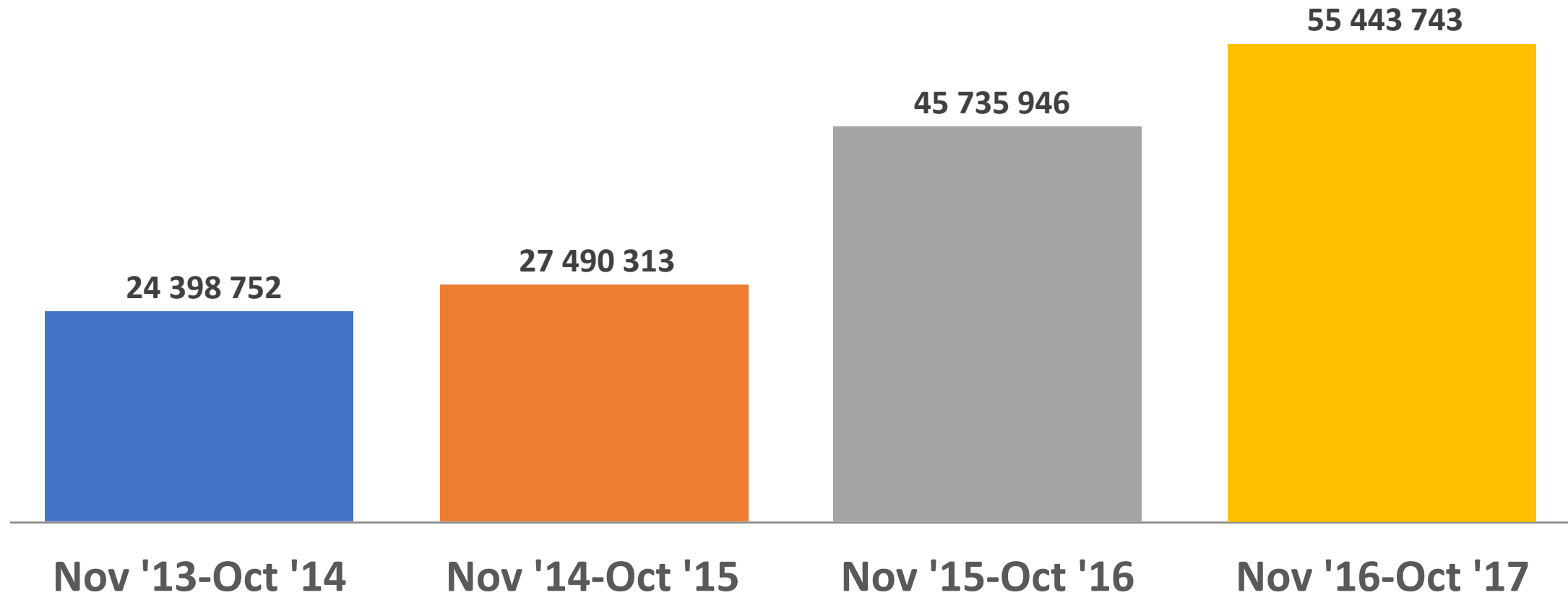
Millions of titles opened each month from your LMS

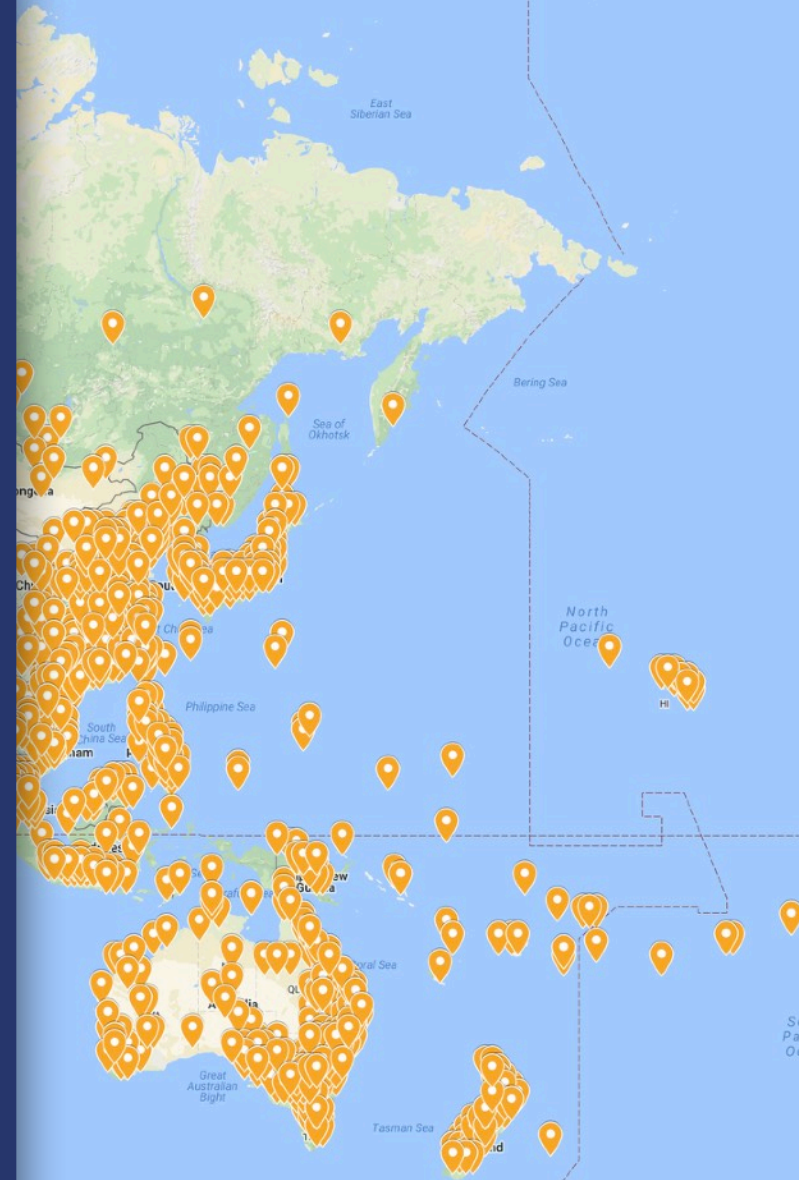
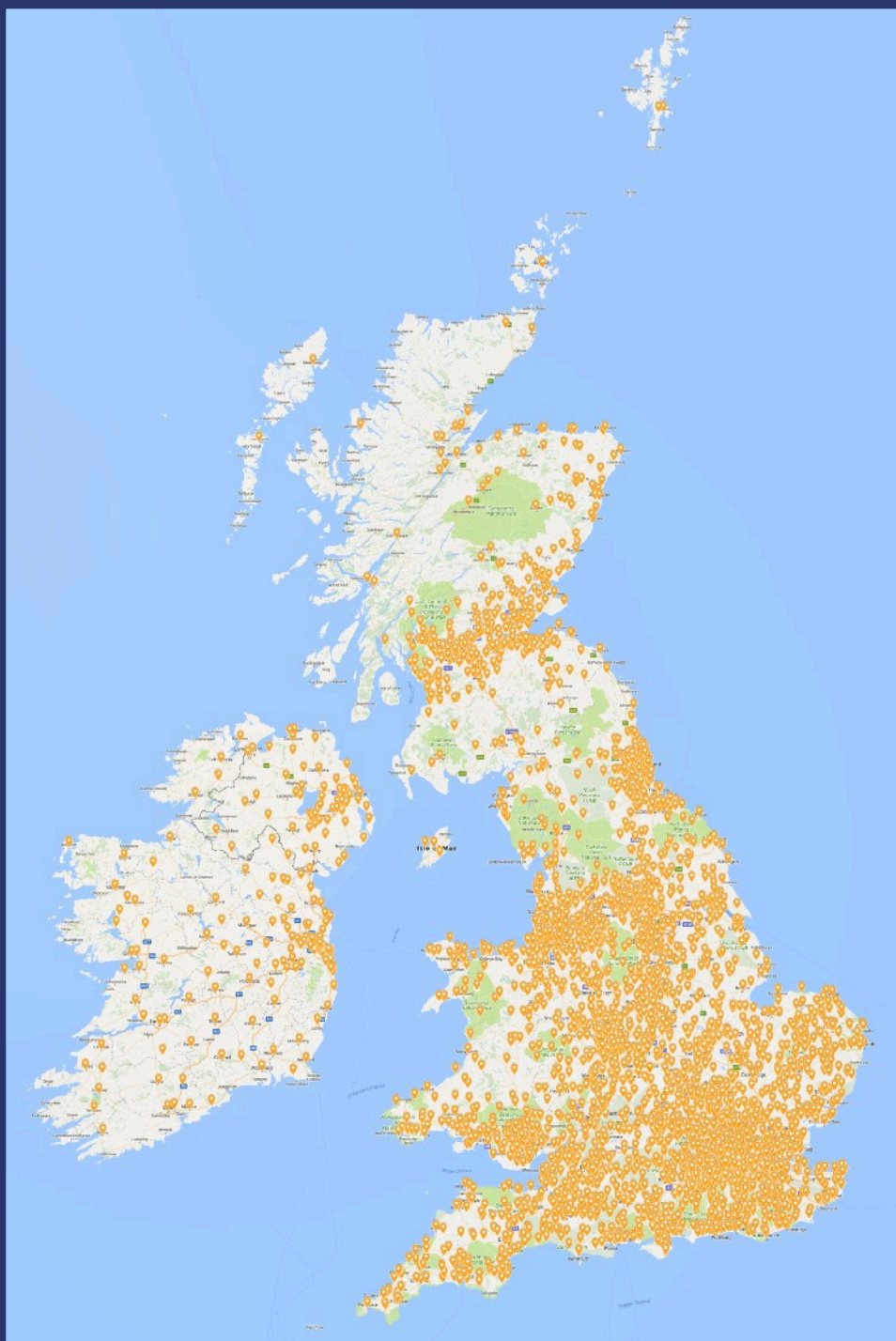
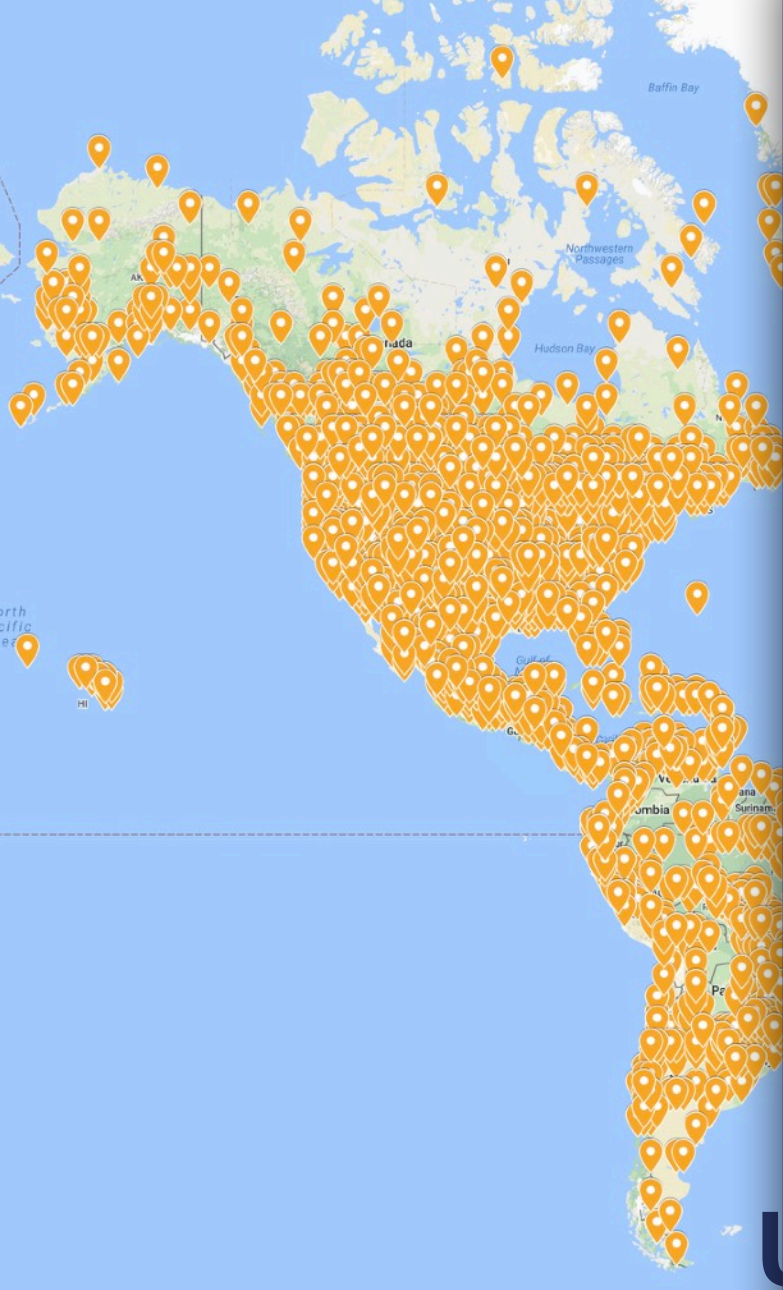
Over 5300 integrations, easily scaling with millions of items opened each month

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



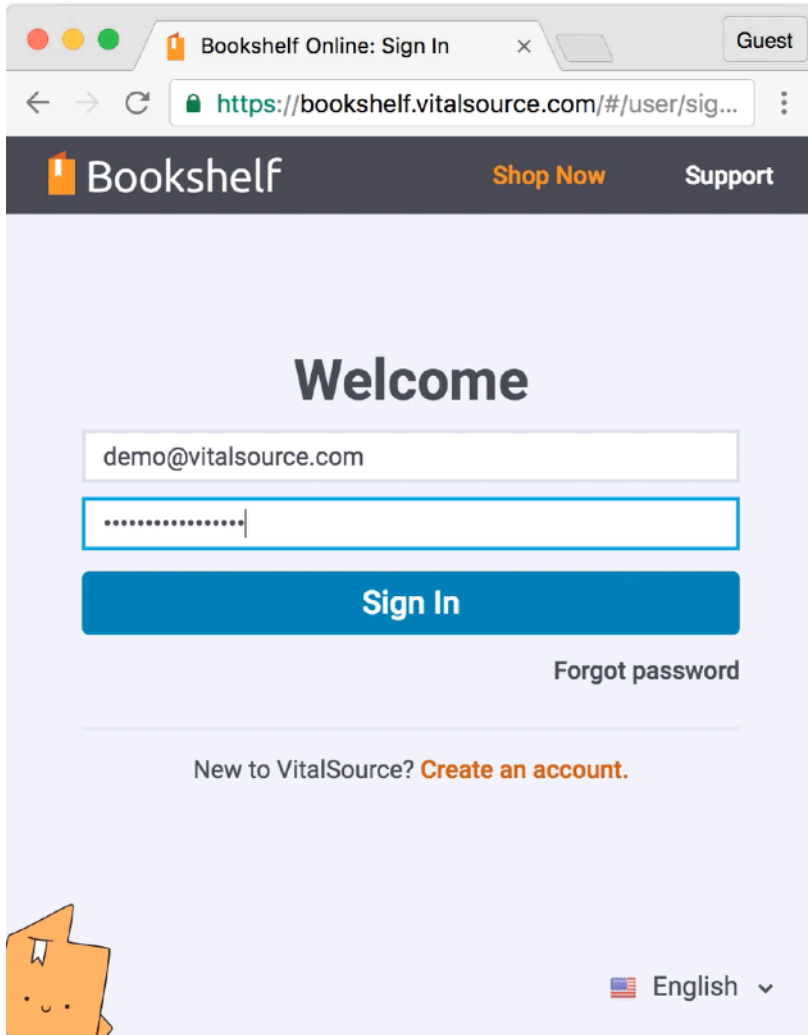
Books opened via LTI launch





g 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": {
    "@id": "https://api.vitalsource.com/products/9781119231417/25",
    "@type": "http://www.idpf.org/epub/vocab/structure/#bodymatter"
  },
  "generated": {
    "@id": "https://api.vitalsource.com/users/demo/annotations/1",
    "@type": "http://purl.imsglobal.org/caliper/v1/HighlightAnnotation",
    "dateCreated": "2016-01-31T15:01:01.001Z",
    "annotated": "https://api.vitalsource.com/products/9781119231417/25"
  },
  "eventTime": "2016-01-31T15:01:50.001Z",
  "edApp": {
    "@id": "https://bookshelf.vitalsource.com",
    "name": "VitalSource Bookshelf",
    "@type": "http://purl.imsglobal.org/caliper/v1/SoftwareApplication"
  }
}
```

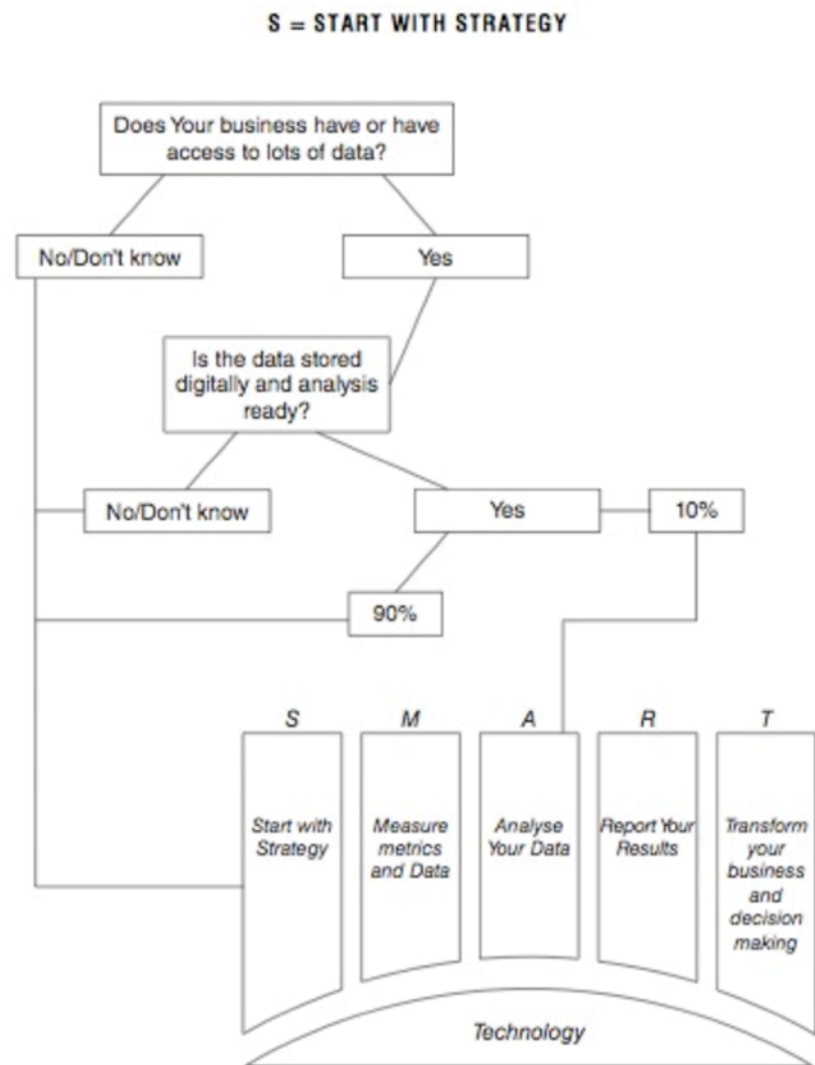


Figure 2.1 All roads lead to Start with Strategy

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

The screenshot shows the VitalSource Engagement Dashboard. The browser address bar indicates the URL is <https://analyze.vitalsource.com>. The dashboard header includes the VitalSource logo, 'ENGAGEMENT DASHBOARD', and a 'Sign Out' button. Below the header, there are navigation tabs for 'Institution' and 'Publisher', and a dropdown menu for 'Engagement Dashboard Demo'. A date range selector shows '02/03/17 - 03/03/17'. A 'Clear All' link is also present.

The main content area is titled 'Institution' and contains a description: 'The VitalSource Engagement Dashboard displays data from your students' learning interactions with course materials.' To the right of this description are six filter dropdown menus: 'All Courses', 'All Instructors', 'All Students', 'All Isbns', 'All Titles', and 'All Publishers'.

Below the filters, there are navigation tabs for 'Trends', 'Details', 'Trends by Week', 'Engagement by Book', and 'Engagement by Course'. The 'Engagement by Book' tab is currently selected.

The 'ENGAGEMENT BY BOOK' section includes two filter dropdowns: 'All Devices' and 'All Platforms', and an 'Export CSV' button with a download icon.

The main data table has the following columns: Book Title, ISBN, Publisher Name, Active Users, Session Count, Page Views, and Page Prints. The table contains three rows of data:

Book Title	ISBN	Publisher Name	Active Users	Session Count	Page Views	Page Prints
McCurnin's Clinical Textbook for Veterinary Technicians	9781437726800	Elsevier Health Sciences (US)	277	1308	11708	722
ACP ILLUSTRATED GUIDE TO VETERINARY MEDICAL TERMINOLOGY	9781305376717	Cengage Learning US	134	822	27098	652
Trail Guide to the Body: A hands-on guide to locating muscles, bones and more	9780991466610	Books of Discovery	53	193	3356	511

***“What is the efficacy
of this data?”***

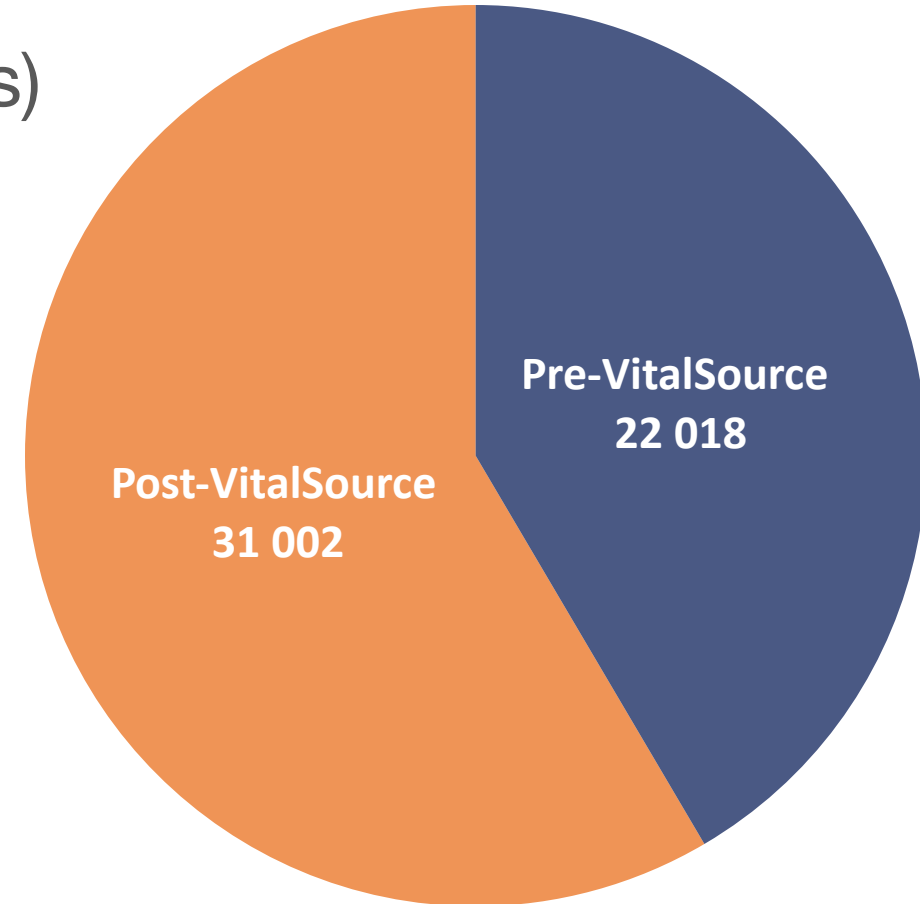
efficacy | 'efəkəsē |

noun

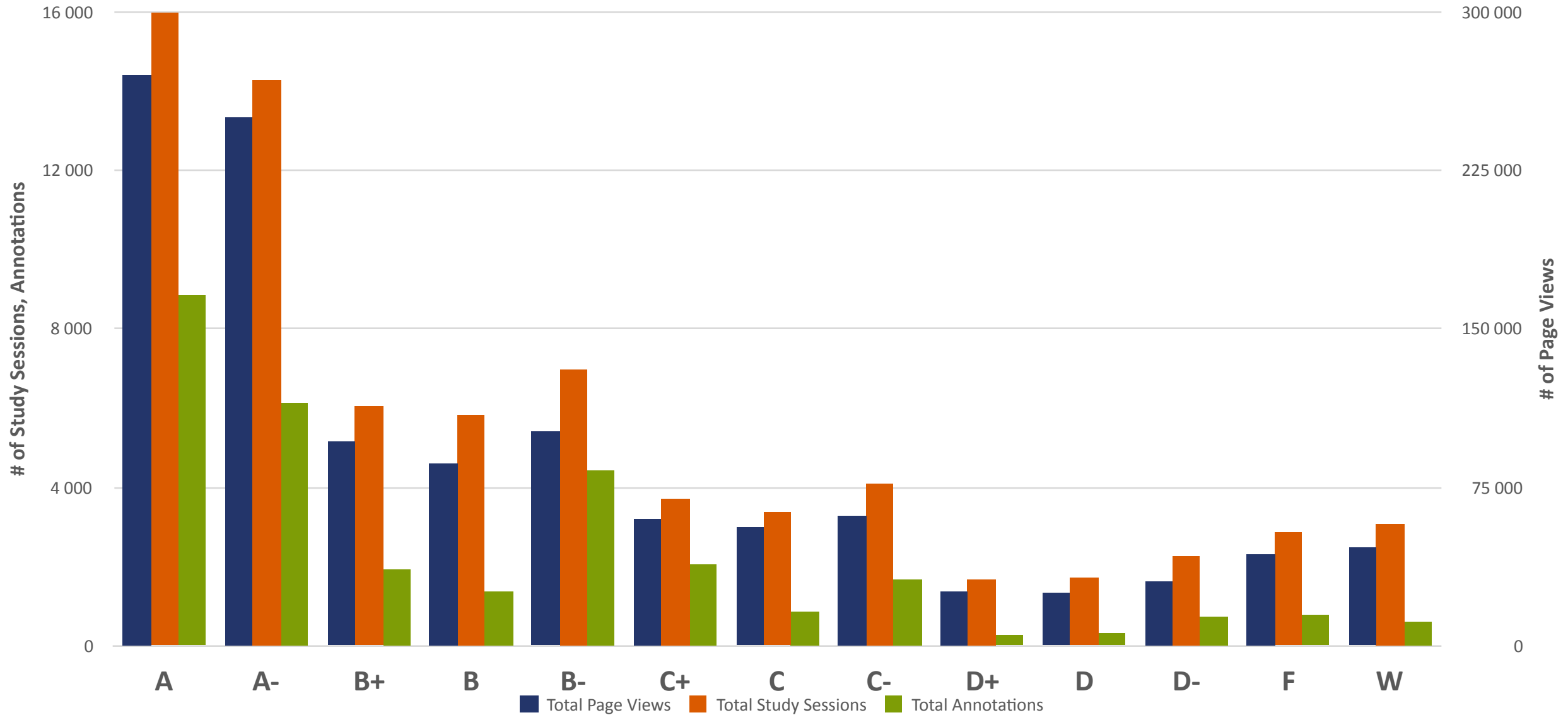
the ability to produce a desired or intended result

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

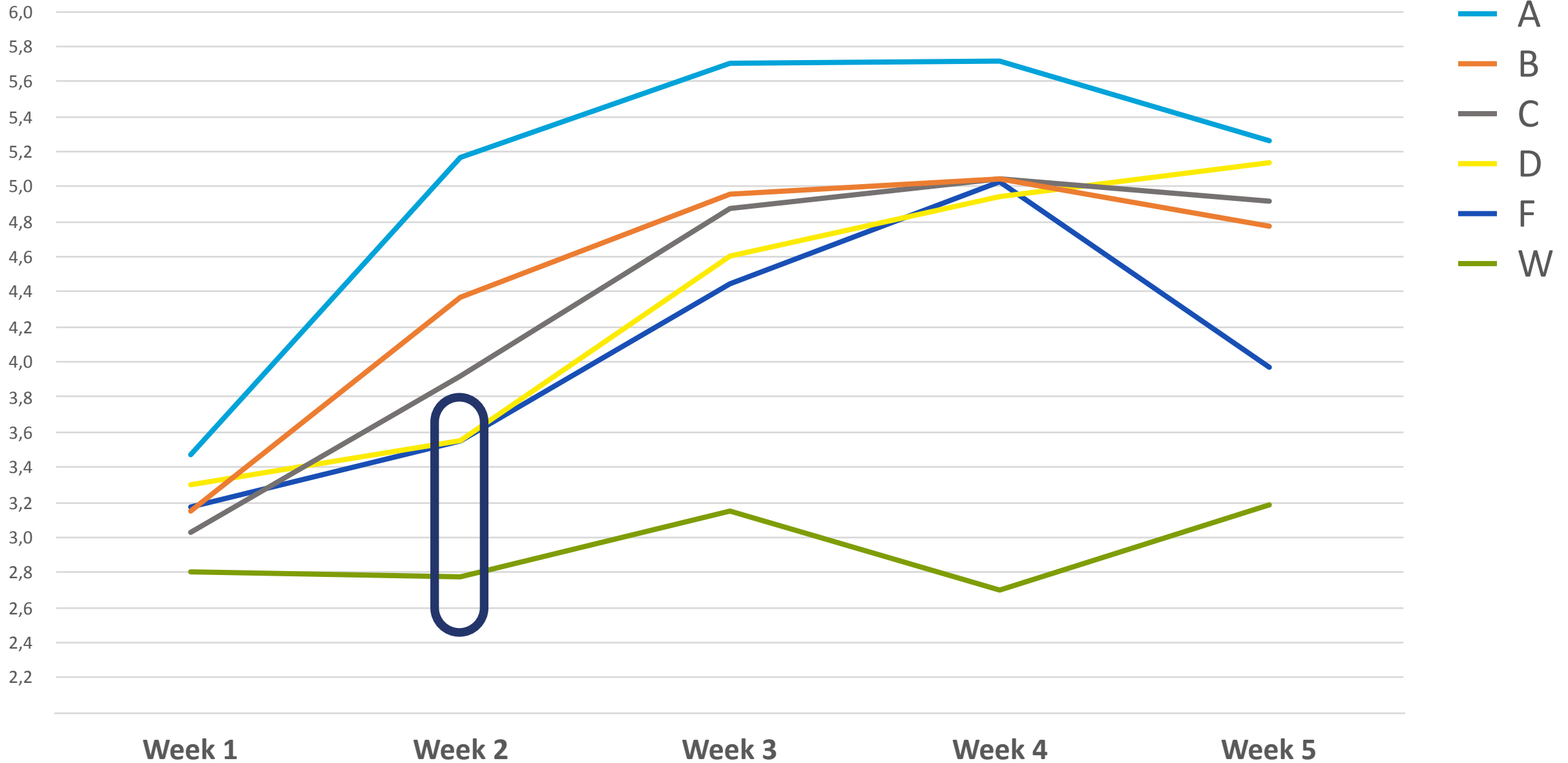


Engagement Markers by Outcome



Study Sessions Per Week

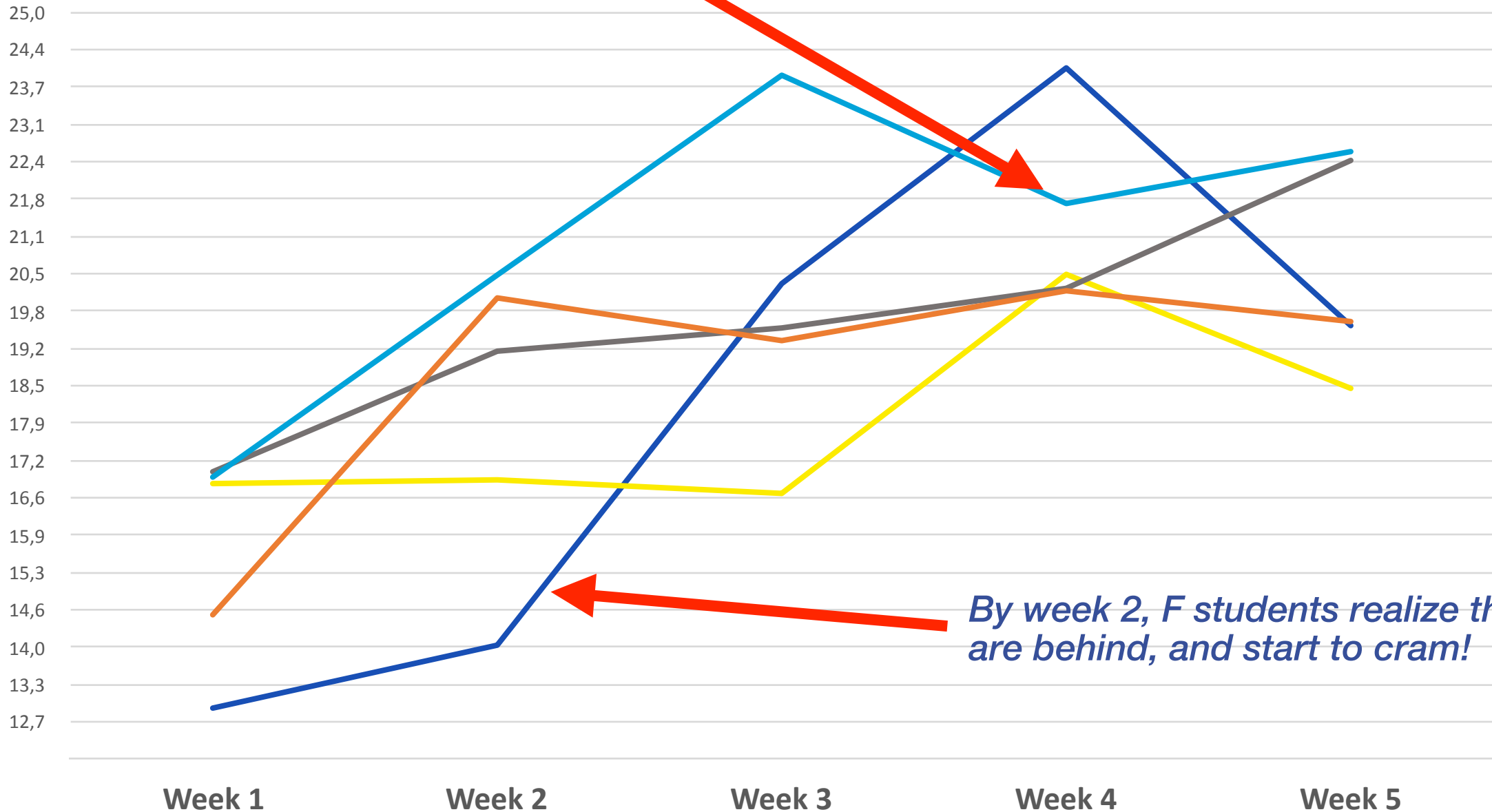
Behavior in week 2 predicts outcome



Pages Per Session

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

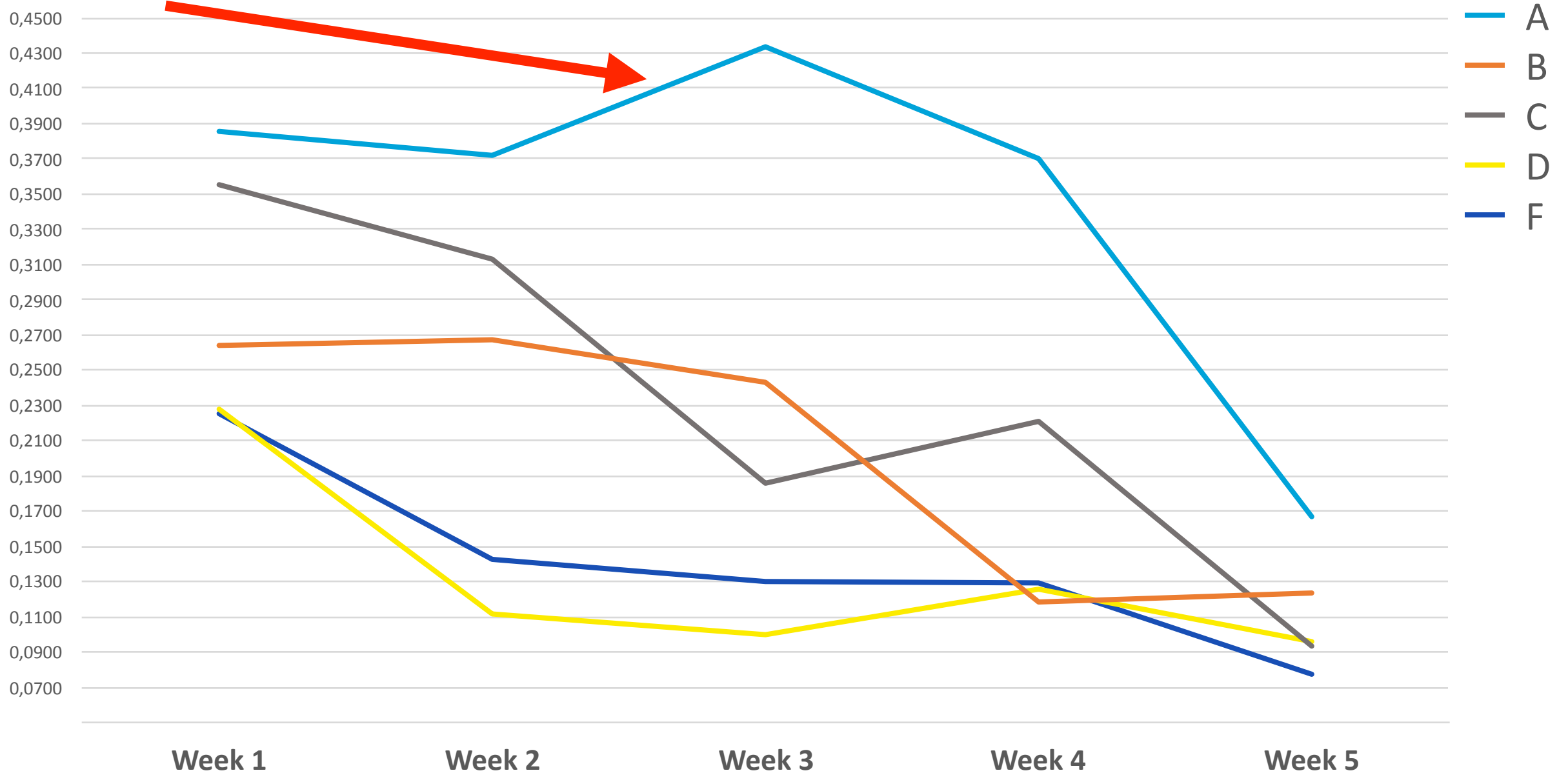
- A
- B
- C
- D
- F



By week 2, F students realize they are behind, and start to cram!

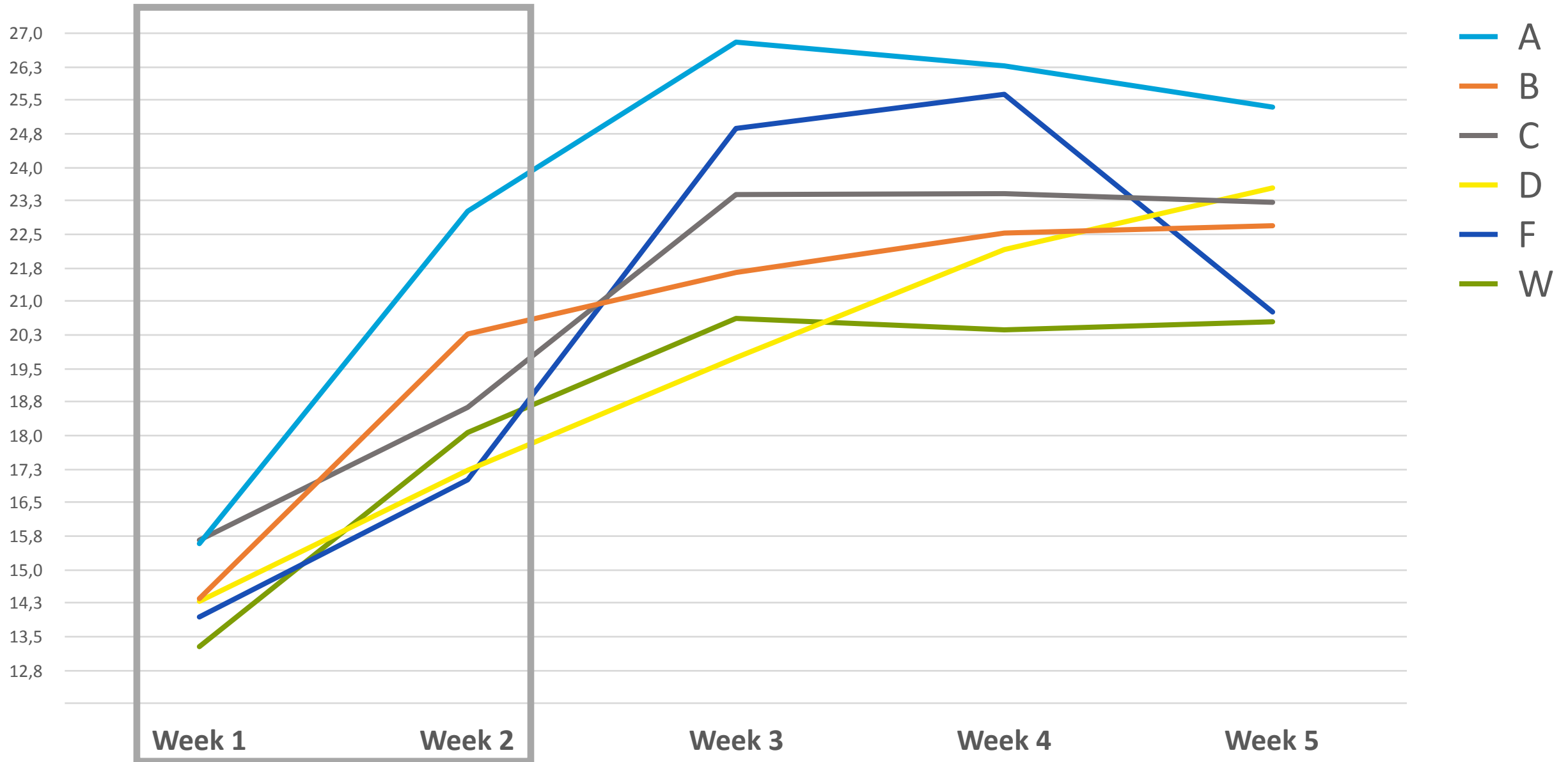
Annotations Per Session

A students engage with content in most meaningful way



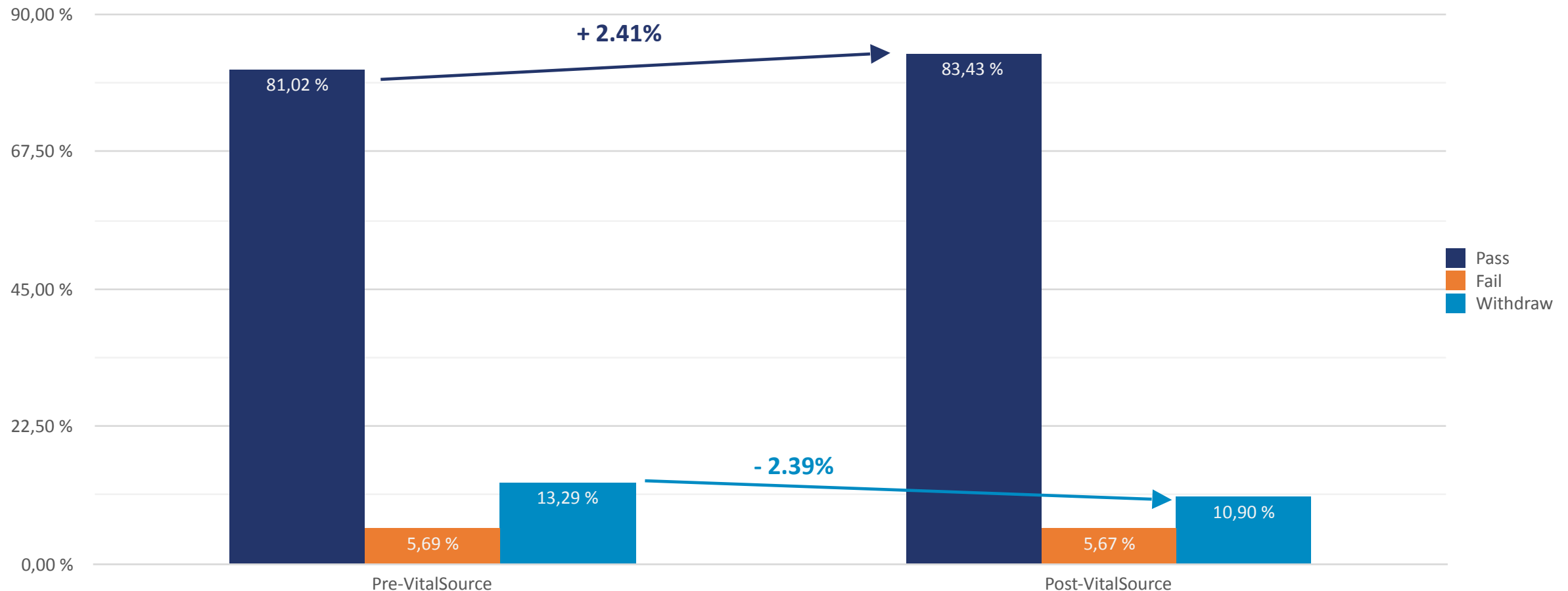
Minutes Per Session

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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