

# What Next for Learning Analytics?

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# What Next for Learning Analytics?



## **1. Adaptive Learning**

Adaptive learning dynamically adjusts the way instructional content is presented to students based on their responses or preferences and relies on large-scale collection of learning data based. Institutions require adaptive learning to solve the challenge of providing scalable personalised learning.

## **2. Predictive Analytics**

Engage your institution in an understanding of the analytics cycle and get stakeholders to define the problem and associated algorithm with a view to measuring, analysing and acting on them.

## **3. CRM**

Support all phases of student life cycle from recruitment, enrolment, engagement, retention, career guidance.  
Keeps track of all advisory interactions for consistent and well-informed follow-up advisory sessions.

## **4. Exostructure**

Services support the institution from the outside. e.g. Open Badges, Learning Tools Interoperability, Learning Analytics Interoperability Framework, Question and Test Interoperability

## **5. Open Microcredentials**

"signs," "certificates" or "badges" of accomplishments used to indicate skills learned - Professional institutes could now start to create qualifications.

## **6. Digital Assessment**

Digital technologies to create, administer, report and manage tests and examinations. Feeds into analytics, adaptive learning, competency-based education

## **7. Smart Machines**

Smart machines learn from experience. Increasingly use complex data sources: tweets, Facebook, SIS, LMS and CRM, & search correlations with student success

## **8. Open educational resource ecosystems**

Educational content and media that are findable, freely available, and increasingly include tools and services to improve quality and production of open content

## **9. Listening and Sensing Technology - Emotion AI**

A broad collection of virtual capabilities that range from social listening and sentiment analysis through capture and interpretation of social activities. Large volumes of data so institutions will need to plan for this.

## **10. Collaboration Technology**

Those that facilitate research, education and outreach effectiveness. Inter-and intra institutional



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You are very happy 😊

## Course Health

Software Engineering



Excellent Engagement



System Design



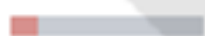
Average Engagement



Web Engineering



Good Engagement



## Notifications



Students of Software Development have submitted their assignments.

5 Hours ago



Student recorded very low attendance in Web Engineering.



### How can I improve my course ?

Improve the efficacy of your content and assessments.  
Identify the hardest tests, and the least used content.



### Transfer of Outcomes

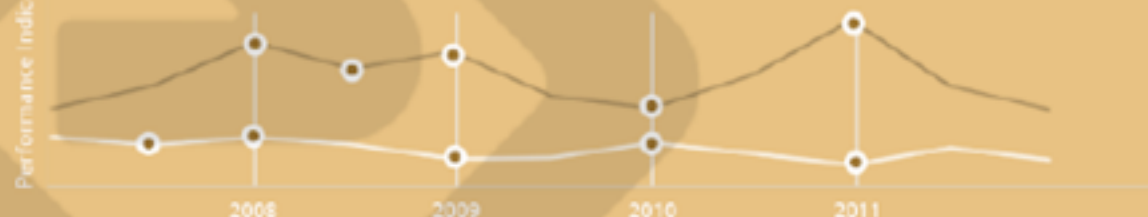


Do you want to know how well students are learning and applying skills acquired?



### How do I compare as an Instructor?

Performance Indicator



### Accreditation

View & audit  
accreditation report



### Competency Portfolio

Analyze your students overall  
performance report

Desired Outcome

Roadmap

Course Time Spent



## Reports Widgets



How can I improve my course ?

Positive Correlation

Section wise Performance

Overall Performance



Transfer of Outcomes



How do I compare as an Instructor?



Accreditation



Competency Portfolio



Desired Outcome



Peer Comparison



Course Time Spent



Calendar



Roadmap



How can I improve my course ?

## Positive Correlation

Courses:

CS 124 Intro to Software

Outcomes:

Fundamentals

Learning Object:

Assessments

[See More filters](#)



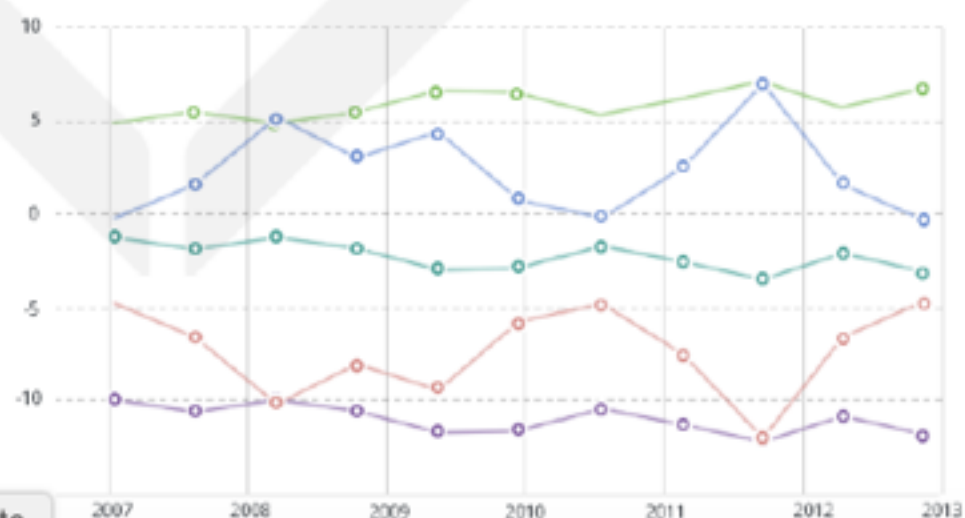
Students are not able to understand topics related to assessment number 1.5 and 3.2. Check out for the solution [here](#).



Semester

Year

CS 124 Module 1.4 Fundamentals CS 124 Module 1.5 Fundamentals CS 124 Module 1.6 Fundamentals  
CS 124 Module 1.7 Fundamentals CS 124 Module 2.8 Fundamentals CS 124 Module 3.2 Fundamentals



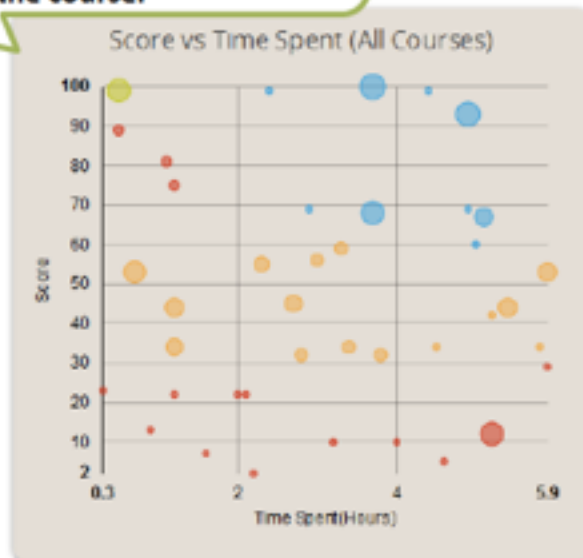
Keynote



# Some more teacher widgets



Uses scores and engagement level data to identify student who are at-risk of dropping out of a course, or of scoring low in the course.



Performance and Engagement put on a timeline together. Inferences drawn on overall class interest level, mood, and progress.



- 32% students of Quantitative Reasoning Course are at risk. They need mentor guidance.
- Students did not spend enough time on PreCalculus in the third week because of Holidays, need not worry.
- 50% students in your Courses are Visual Learners, suggest your students more of visual based content.
- 65% students of Quantitative Reasoning are spending only 10% of their time on this Course. They need more practice.

Learning Data Analytics to identify areas of weakness  
Google Chrome  
identify trends and propose

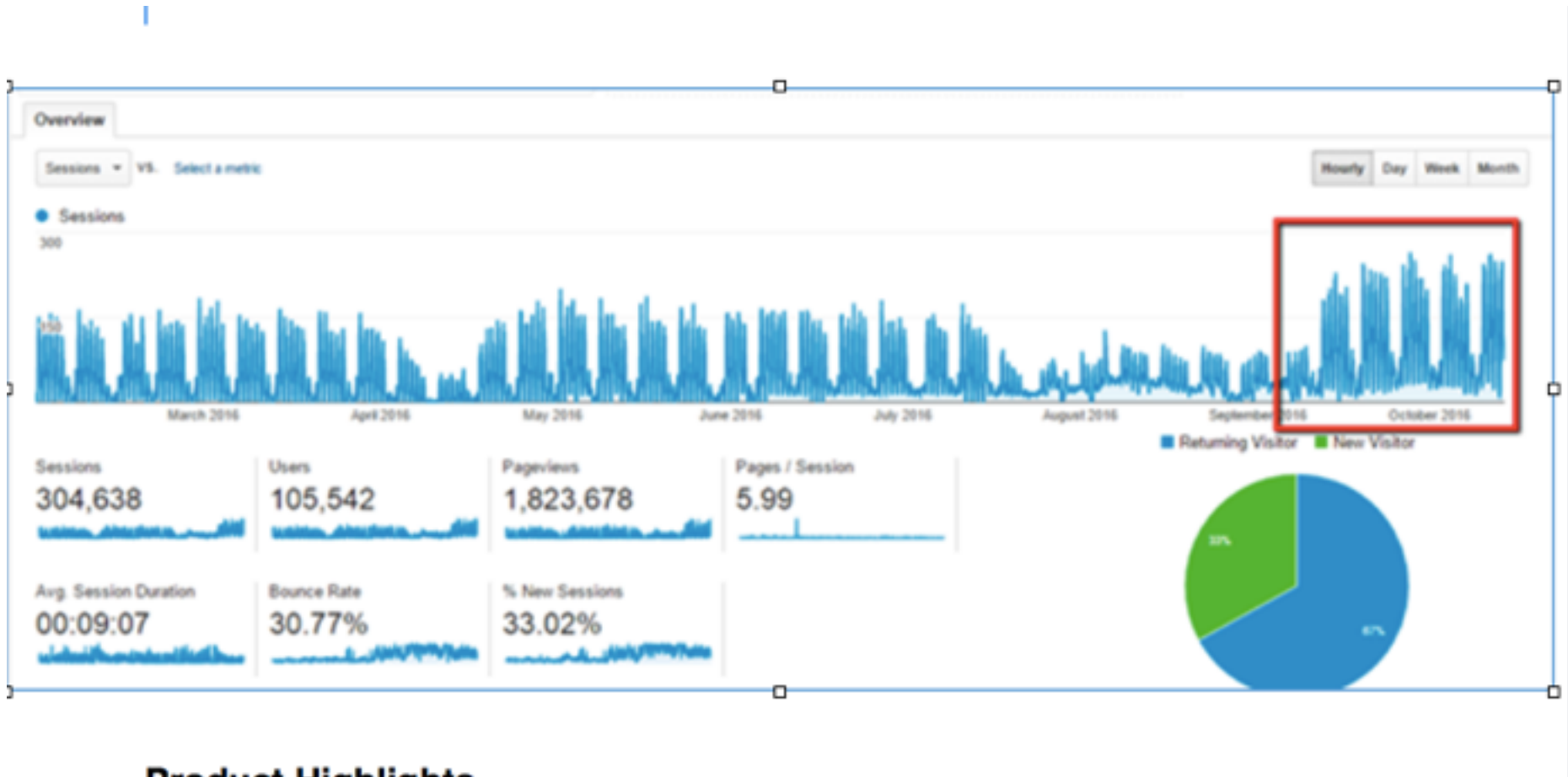


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## Usage Highlights: Brigham Young University

- ◆ Some of the self-driven self-serve modules of EPS that did not require a high adoption effort were released to the entire student population in 2014 itself. These modules (Advising, Academic Success, Internships) have been live since 2014. More than 60,000 tutoring appointments were scheduled and tracked through the system in one semester, indicating a clear positive growth and impact to students
- ◆ The more complex modules (also highest value to students), were released in phases rolling out to several departments at a time. Since February 2016, EPS has incrementally been rolled out to around 25,000 students. It is scheduled to be go live to another 32,000 students covering 189 majors at the college before December 2016.
- ◆ Graduation Planner is now primed with data and comprehensive student degree-recommended plans for all majors. This module is actively being used by students to manage and get advice on their degree plans. Other modules are also seeing increased adoption, and growth
- ◆ Increased usage has been observed post Autumn 2016 which indicates positive steps in adoption at BYU-I. The Daily Active Users and Monthly Active Users has been steadily climbing up, since January 2016, indicating a positive reception of the product, and increasing student interest in using the tools provided as part of the EPS suite.

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## **Educational Positioning System:**

### **The Modules**

- Academic Preparation
- Education Strategy
- Grad Planner
- Roadmap
- Student Performance
- Academic Success
- Advising
- Predictive Analytics
- Careers and Internship

# What Next for Learning Analytics?

## Excelsoft's Educational Positioning System

### Product Highlights

- ◆ Modules can be turned on/off independently on any deployment
- ◆ EPS Integrates with other modules
- ◆ Modules integrate with on-campus systems
- ◆ EPS fully supports multi-tenancy - part of a move towards a SaaS solution
- ◆ EPS is dependent on campus systems e.g. SIS or LMS.
- ◆ Certain functionality like Quizzes, Surveys, Occupational Data are provided via integrated external tools

### Product Roadmap

- ◆ Adviser Dashboard for more integrated student advising
- ◆ Retention Dashboard
- ◆ Competency Portfolio, Career and Job Recommendations
- ◆ Predictive Models leverage data sets collected through various EPS modules to make intelligent recommendations
- ◆ Job Portal Integration (Indeed, Monster, CareerBuilder etc.)
- ◆ Curated Content Integration into Academic Preparation and Tutoring for College Readiness
- ◆ Course Recommendations for better Career Alignment
- ◆ Move towards full SaaS support and configurability
- ◆ Improvements in Performance, Security and Accessibility

### Architecture and Design

- Modular architecture and standards based integrations
- Student facing, mobile-first design

SIS and LMS agnostic architecture

Scalable and high performance architecture to support a growing student population

Long-term analytics strategy for the university using a robust data-foundation

Data from one module serves as an input to the intelligent recommendations made by other modules.