

MODULE 1: STUDENT ACCESS AND INTERACTION IN VUWS

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*Learning Futures

Modules in learning analytics

- 1. Module 1.** Focuses on key reports related to student access and student interaction. This includes locating reports, how to run them and basic outline of interpretation of report data.
- 2. Module 2.** In this module, we will explore how you can use these reports to provide insights into your students' cognitive engagement in your vUWS site. Designing for opportunities to track your students' progress will also be considered.
- 3. Module 3.** Provides a guide in the use of learning analytics data for your teaching practice, learning design and delivery of your unit.

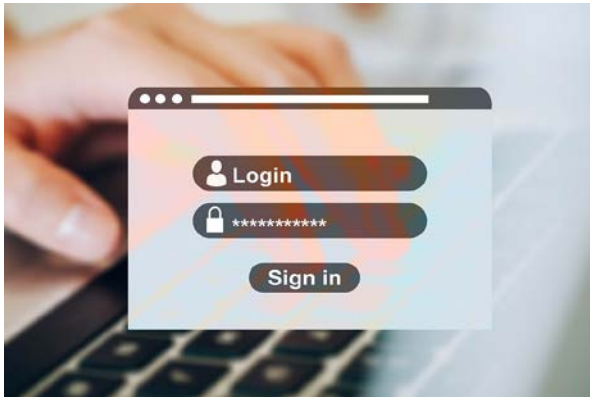
What do we mean by learning analytics?

The ‘**what**’ and the ‘**why**’

*“learning analytics is the **measurement, collection, analysis** and **reporting** of data about learners and their contexts, for purposes of **understanding** and **optimising learning** and the environments in which it occurs.”*

(Source: 1st International Conference on Learning Analytics and Knowledge, Banff, Alberta, February 27–March 1, 2011, <https://tekri.athabascau.ca/analytics/>)

Behavioural engagement and some definitions



**Course (Unit)
Access = Logins**



**Interactions
= Clicks**



**Minutes =
Time spent**

Behavioural engagement in this workshop means...

- Interaction
 - Interaction using tools (e.g. forums)
- Access
 - Content (e.g. videos, learning)
 - vUWS logins
- Duration
 - Time spent
 - Calculated measures (e.g. average time spent)

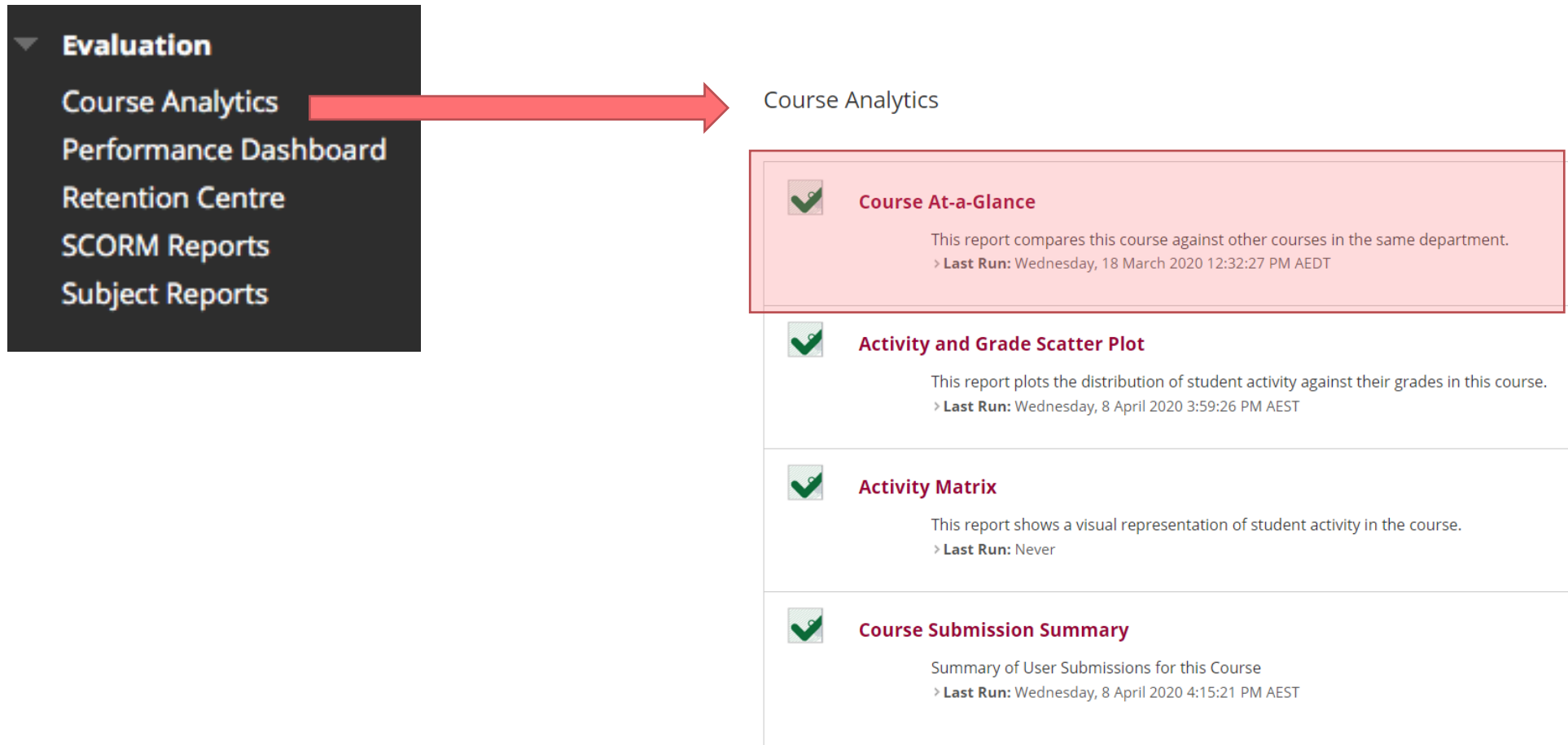
This translates into questions...

- **How long are students spending on videos?**
- **Which students haven't logged in yet?**
- **How much time are my students spending?**
- **Which pieces of content are my students most/least clicking on/interacting with?**

vUWS reports aren't the only source of data

- vUWS reports/data
- SFUs
- Grade centre
- Anecdotal feedback
- Peer review
- Tutor feedback
- Historical comparison
- Comparison against other units


In Blackboard a course = unit




Learn Unit At A Glance

Learn Unit At A Glance

Learn Unit Information

Academic Staff: 

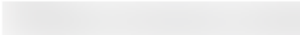
Unit ID: 

Term: Autumn session (Semester 1)




Status: Unavailable

Instruction Mode: Blended




Students Enrolled: 529

School: 





ITEM COUNT (SAME INSTRUCTION MODE)

ITEM	UNIT ITEMS		SCHOOL AVG	% DIFFERENCE
	TOTAL	AVAILABLE		
Assessment	38	10	44.5	
Content	179	126	200.9	
Tool	136	1	139.7	

% OF ITEMS ACCESSED (SAME INSTRUCTION MODE)

ITEM	UNIT	SCHOOL AVG	% DIFFERENCE
Assessment	32.2%	21.1%	
Content	7.9%	8.6%	
Tool	1.2%	1.4%	

ACTIVITY (SAME INSTRUCTION MODE)

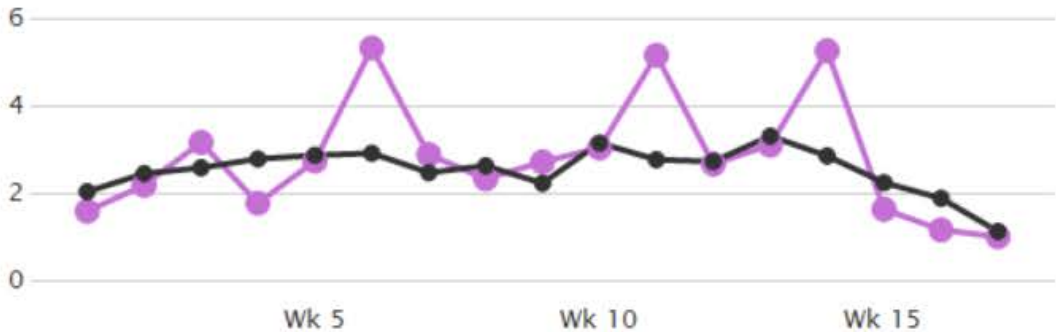
ITEM	UNIT AVG	SCHOOL AVG	% DIFFERENCE
Accesses	48	54.2	
Minutes	1,616	1,918.3	
Interactions	366	522.2	
Submissions	9	13.3	

-200% -100% 0% 100% 200%

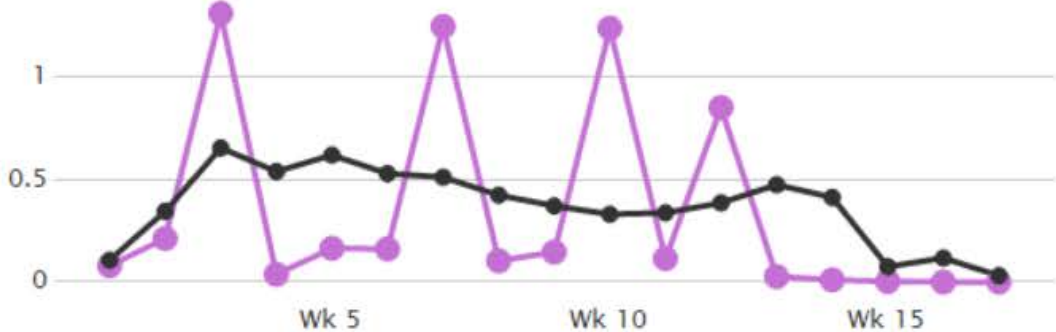
Learn Unit At A Glance

■ This Section ■ SCHOOL OF SOCIAL SCIENCES AND PSYCHOLOGY (102 Sections)

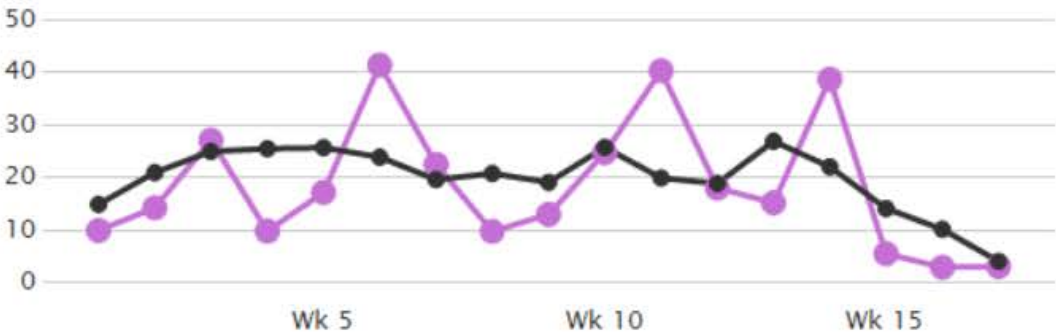
Accesses Average vs School Average



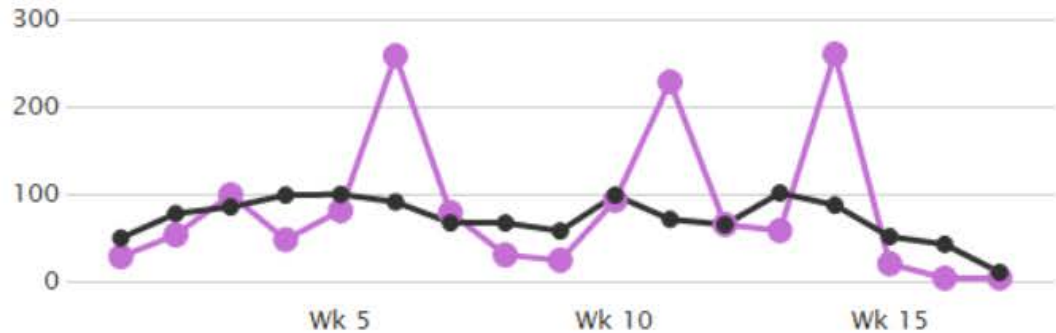
Submissions Average vs School Average



Interactions Average vs School Average



Minutes Average vs School Average





Learn Unit At A Glance

Student Activity Summary (529 Students)

↑ > Avg. + 10%	↓ < Avg. - 10%	→ Within Avg. +/- 10%	● NA
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STUDENT NAME	UNIT ACCESSES	MINUTES	INTERACTIONS	SUBMISSIONS	GRADE CENTRE SCORE													
STUDENT NAME	DATE OF LAST ACCESS	DATE OF LAST SUBMISSION	STUDENT	AVG	STUDENT	AVG	STUDENT	AVG	STUDENT	AVG	STUDENT	AVG						
		17/07/2020	07/06/2020	62	↑	48	2259	↑	1616	850	↑	366	16	↑	9	66%	→	66%
		17/07/2020	04/06/2020	40	↓	48	978	↓	1616	436	↑	366	11	↑	9	71%	→	66%
		09/07/2020	14/06/2020	34	↓	48	556	↓	1616	188	↓	366	9	→	9	61%	→	66%
		17/08/2020	07/06/2020	54	↑	48	808	↓	1616	324	↓	366	11	↑	9	71%	→	66%
		09/07/2020	07/06/2020	66	↑	48	1957	↑	1616	507	↑	366	11	↑	9	58%	↓	66%
		22/08/2020	10/06/2020	34	↓	48	1074	↓	1616	176	↓	366	8	↓	9	61%	→	66%
		11/07/2020	08/06/2020	54	↑	48	1123	↓	1616	300	↓	366	11	↑	9	64%	→	66%
		25/07/2020	06/06/2020	39	↓	48	1194	↓	1616	224	↓	366	11	↑	9	75%	↑	66%
		14/07/2020	23/05/2020	34	↓	48	675	↓	1616	171	↓	366	9	→	9	55%	↓	66%
		10/07/2020	07/06/2020	40	↓	48	1661	→	1616	258	↓	366	10	↑	9	70%	→	66%
		13/08/2020	06/06/2020	60	↑	48	2029	↑	1616	440	↑	366	9	→	9	68%	→	66%
		30/08/2020	06/06/2020	62	↑	48	1313	↓	1616	337	→	366	10	↑	9	78%	↑	66%
		24/08/2020	05/06/2020	77	↑	48	2097	↑	1616	745	↑	366	11	↑	9	72%	→	66%
		10/07/2020	07/06/2020	148	↑	48	2883	↑	1616	1104	↑	366	10	↑	9	77%	↑	66%
		06/07/2020	07/06/2020	56	↑	48	537	↓	1616	599	↑	366	10	↑	9	65%	→	66%
		09/07/2020	07/06/2020	61	↑	48	1882	↑	1616	328	↓	366	9	→	9	81%	↑	66%
		24/08/2020	07/06/2020	52	→	48	898	↓	1616	308	↓	366	9	→	9	54%	↓	66%
		11/07/2020	09/06/2020	100	↑	48	3999	↑	1616	658	↑	366	10	↑	9	78%	↑	66%
		09/07/2020	07/06/2020	47	→	48	1997	↑	1616	293	↓	366	9	→	9	82%	↑	66%
		16/07/2020	07/06/2020	36	↓	48	1574	→	1616	302	↓	366	8	↓	9	62%	→	66%
		23/08/2020	07/06/2020	36	↓	48	885	↓	1616	255	↓	366	10	↑	9	63%	→	66%
		09/07/2020	07/06/2020	43	↓	48	2987	↑	1616	436	↑	366	10	↑	9	69%	→	66%
		28/08/2020	05/06/2020	56	↑	48	1675	→	1616	447	↑	366	7	↓	9	63%	→	66%

Activity

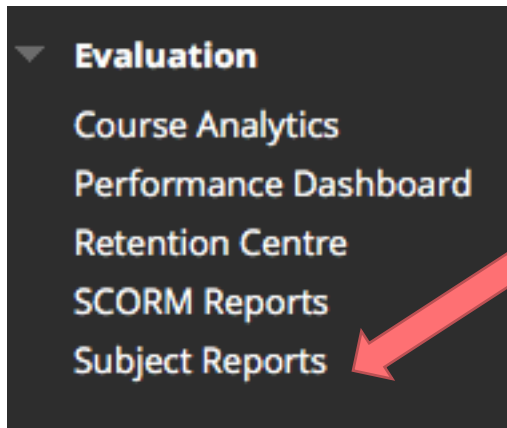
Go to your learn unit at a glance in your vUWS site.









Run the report.

Compare reports from the same unit.

Are there significant differences? Are these related to learning design changes or changes in assessment?

Tracking activity related to content



	All User Activity inside Content Areas ▼ <p>This report displays a summary of all user activity inside Content Areas for the subject.</p> <p>› Last Run: Friday, 25 September 2020 8:43:56 AM AEST</p>
	Overall Summary of User Activity <p>The report displays user activity for all areas of the subject, as well as activity dates, times and day</p> <p>› Last Run: Friday, 25 September 2020 8:29:35 AM AEST</p>
	Single Subject User Participation Report <p>Displays detailed statistics on assessment and collaboration tool submissions for all users in this :</p> <p>› Last Run:</p>
	Student Overview for Single Subject <p>Student Overview for Single Subject displays an individual student's activity within a subject, sorte information about the student's activity, such as which items and Content Areas the student acce</p> <p>› Last Run: Friday, 30 October 2020 11:31:29 AM AEDT</p>
	Subject Activity Overview <p>Subject Activity Overview displays overall activity within a single subject, sorted by student and da activity each student had in the subject. Optionally, you can filter the report by one or more group</p> <p>› Last Run: Tuesday, 27 October 2020 6:09:19 PM AEDT</p>
	Subject Performance <p>This report displays information showing how a single Blackboard Learn Subject performs agains determined when running the report. Data includes averages for the entire subject as well as bre</p> <p>› Last Run:</p>
	User Activity in Forums <p>This report displays a summary of user activity in Discussion Board Forums for the subject.</p> <p>› Last Run: Thursday, 2 July 2020 2:19:09 PM AEST</p>
	User Activity in Groups <p>This report displays a summary of user activity in Groups for the subject.</p> <p>› Last Run: Friday, 25 September 2020 8:39:54 AM AEST</p>

All User Activity Inside Content Areas – report parameters

REPORT INFORMATION

Name

All User Activity inside Content Areas

Description

This report displays a summary of all user activity inside Content Areas for the subject.

Elapsed Time of Last Run

3 minutes, 2.545 seconds

REPORT SPECIFICATIONS

All report types will open in a new browser window upon Submission.

Select Format

PDF

Charts will not be displayed in Excel format. Run reports in HTML or PDF format if charts are required.

★ Select a Start Date

02/11/2020



Enter dates as dd/mm/yyyy


★ Select an End Date

03/11/2020



Enter dates as dd/mm/yyyy

Select Users



All User Activity Inside Content Areas

▼ Home (Autumn 2020) 🏠

Health Justice and Practice

Home

Learning Zone

Learning Modules

'Drop-in' Sessions (Online Students Only)

My Workshop

Health Justice Portal

Readings and Resources

Communication Zone

Announcements

Discussion

Online Meetings (Zoom) 🔴

Blackboard Collaborate Ultra 🔴

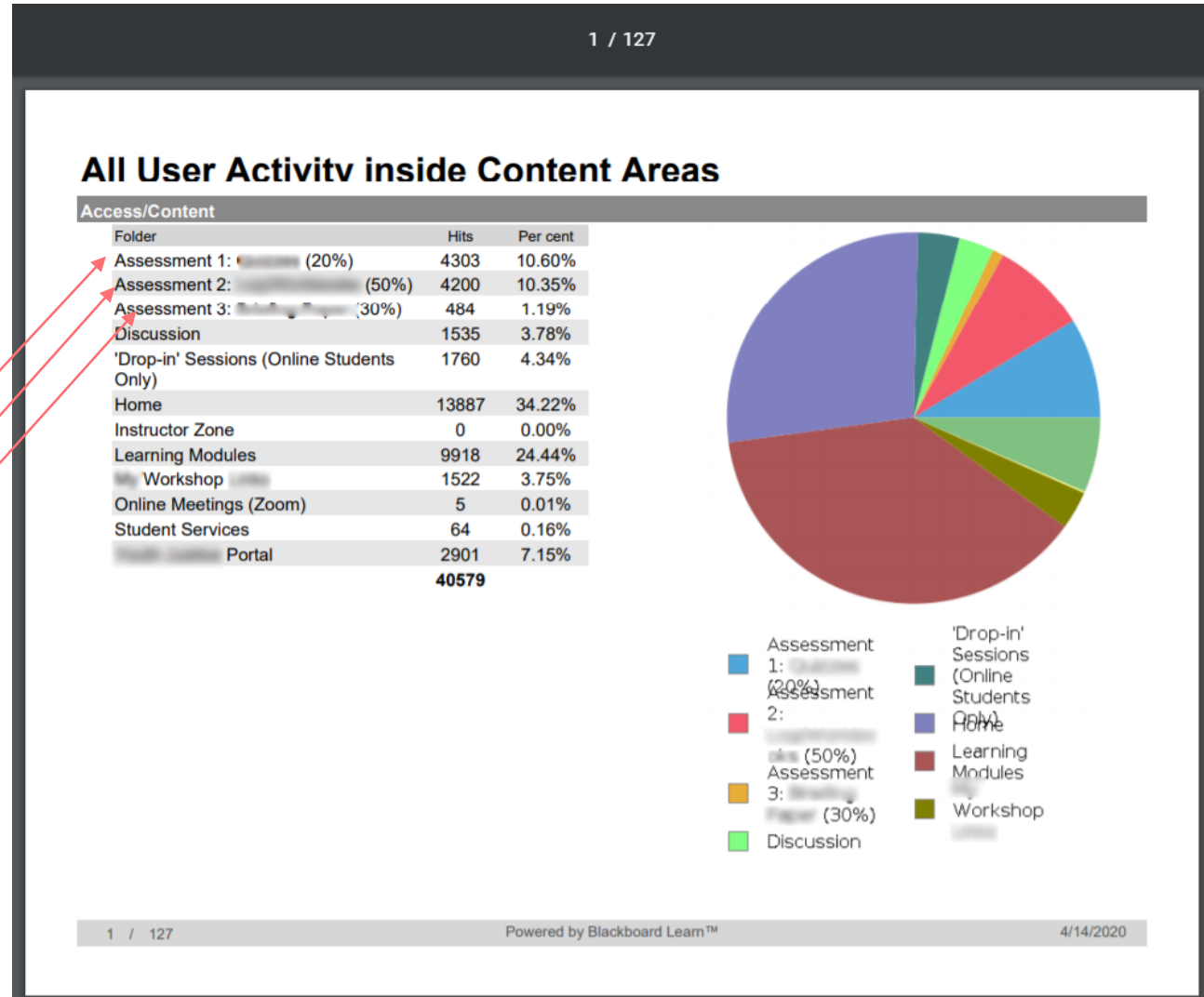
Assessment Zone

Assessment 1: (20%)

Assessment 2: (50%)

Assessment 3: (30%)

My Grades



Activity

Go to your 'all user activity inside content area' in your vUWS site.

Run the report for a specified date range.

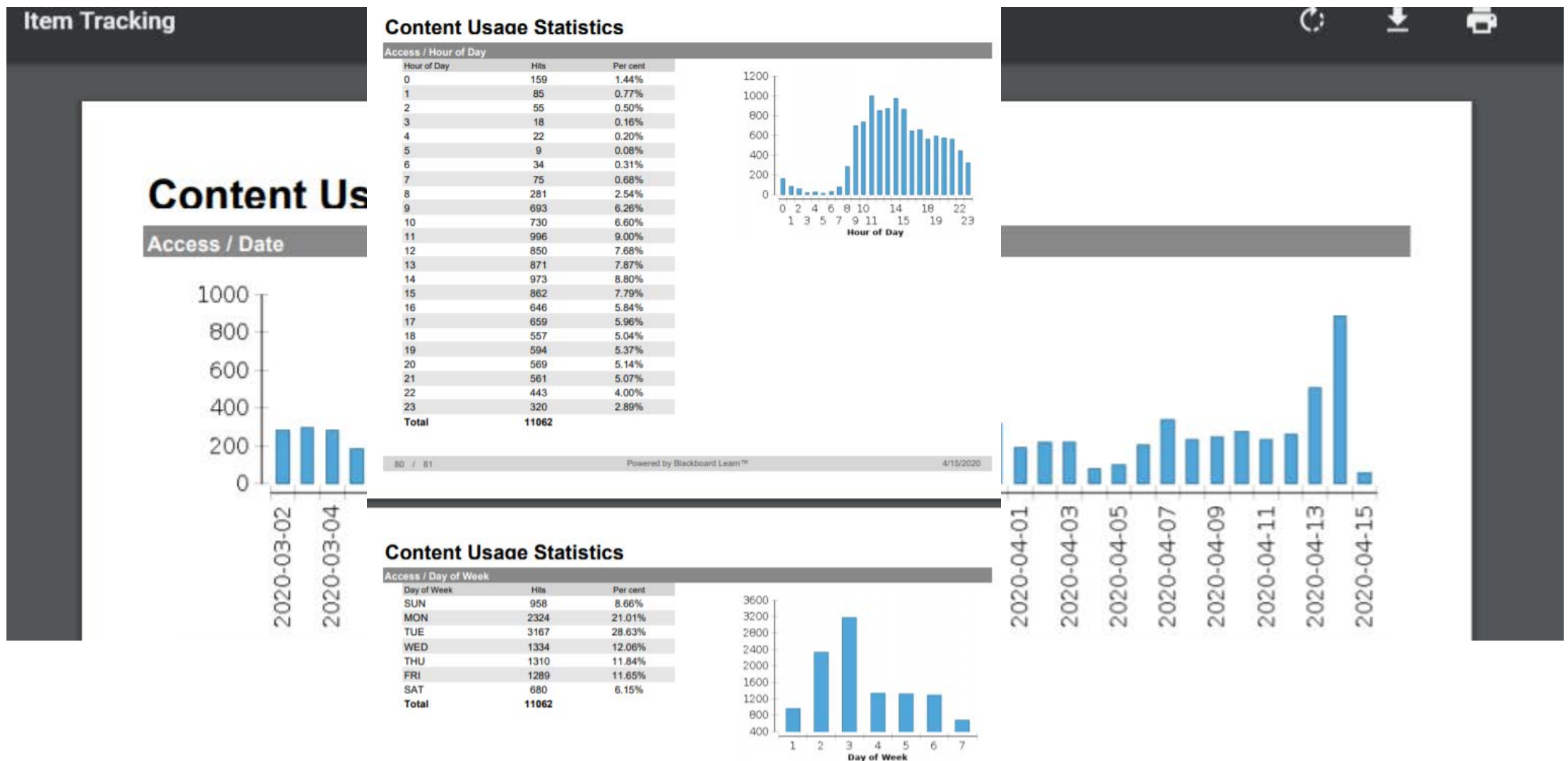
Identify all the left hand elements in your navigation bar with the output from the report.

Does the data surprise you? Compare this report to a previous one. Are there higher levels of behavioural engagement in the content? Why do you think this is?

Tracking individual items – make sure you have tracking on!

The screenshot displays the 'Learning Modules' interface. At the top, there's a header bar with 'LEARNING MODULES' and a search icon. Below this, a navigation bar includes 'Content', 'Assessments', and 'Tools'. The main content area shows two modules. The first module, 'Introduction to the...', has a description and a button labeled 'ENABLED: Statistics Tracking'. The second module, 'Module 1: Stages of youth justice', also has a description and a button labeled 'ENABLED: Statistics Tracking'. A context menu is open over the 'Module 1' card, listing various actions: Edit, Make Unavailable, Adaptive Release, Adaptive Release: Advanced, Set Review Status(Disabled), Metadata, Statistics Tracking (On/Off), View Statistics Report (highlighted in yellow), User Progress, Copy, Move, and Delete. A red arrow points from the top right of the menu towards the 'View Statistics Report' option.

Tracking individual items



Usage of tools in vUWS

- **Blackboard is capable of tracking individual tool usage and producing separate reports**
- **We will focus on Groups and Forums which is easily generated**



Analytics for tools and content



All User Activity inside Content Areas

This report displays a summary of all user activity inside Content Areas for the subject.
> **Last Run:** Friday, 25 September 2020 8:43:56 AM AEST



Overall Summary of User Activity

The report displays user activity for all areas of the subject, as well as activity dates, times and day
> **Last Run:** Friday, 25 September 2020 8:29:35 AM AEST



Single Subject User Participation Report

Displays detailed statistics on assessment and collaboration tool submissions for all users in this :
> **Last Run:**



Student Overview for Single Subject

Student Overview for Single Subject displays an individual student's activity within a subject, sorte information about the student's activity, such as which items and Content Areas the student acce:
> **Last Run:** Friday, 30 October 2020 11:31:29 AM AEDT



Subject Activity Overview

Subject Activity Overview displays overall activity within a single subject, sorted by student and da activity each student had in the subject. Optionally, you can filter the report by one or more group
> **Last Run:** Tuesday, 27 October 2020 6:09:19 PM AEDT



Subject Performance

This report displays information showing how a single Blackboard Learn Subject performs against determined when running the report. Data includes averages for the entire subject as well as bre:
> **Last Run:**



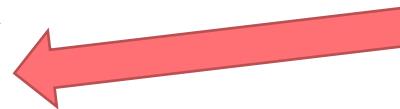
User Activity in Forums

This report displays a summary of user activity in Discussion Board Forums for the subject.
> **Last Run:** Thursday, 2 July 2020 2:19:09 PM AEST



User Activity in Groups

This report displays a summary of user activity in Groups for the subject.
> **Last Run:** Friday, 25 September 2020 8:39:54 AM AEST



Tool usage - groups

REPORT INFORMATION

Name	User Activity in Groups
Description	This report displays a summary of user activity in Groups for the subject.
Elapsed Time of Last Run	1 minute, 14.003 seconds

REPORT SPECIFICATIONS

All report types will open in a new browser window upon Submission.

Select Format PDF
Charts will not be displayed in Excel format. Run reports in HTML or PDF format if charts are required.

★ Select a Start Date 01/11/2020
Enter dates as dd/mm/yyyy

★ Select an End Date 02/11/2020
Enter dates as dd/mm/yyyy

Select Users

User Activity in Groups

Access / Group

Folder	Hits	Per cent
Kingswood 11am - Strand B	128	3.32%
Kingswood 11am - Strand B	256	6.65%
Kingswood 9am - Strand A	308	8.00%
Kingswood 9am - Strand A	202	5.25%
Kingswood 9am - Strand B	229	5.95%
Kingswood 9am - Strand B	231	6.00%
Liverpool 11am - Strand A	257	6.67%
Liverpool 11am - Strand A	218	5.66%
Liverpool 11am - Strand B	192	4.99%
Liverpool 11am - Strand B	176	4.57%



Kingswood 11am - Strand B
Kingswood 11am - Strand B
Kingswood 11am - Strand B
Kingswood 11am - Strand B
Kingswood 11am - Strand B
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Kingswood 11am - Strand B
Kingswood 11am - Strand B
Kingswood 11am - Strand B

Forum usage

User Activity in Forums

User Activity in Forums										Students										Date												
2020-08	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total
	0	2	1	0	0	0	0	2	0																						5	
	0	0	0	0	0	0	0	0	0																						0	
	0	0	1	0	1	0	0	0	0																						2	
	0	0	1	0	0	0	0	0	5																						6	
	0	0	0	2	0	1	1	1	1																						6	
	0	0	0	0	0	0	0	0	0																						0	
	0	0	0	0	0	0	0	3	3																						0	
	0	0	0	0	0	0	0	0	0																						0	
	0	0	0	0	0	0	0	1	3																						0	
	0	0	0	0	0	0	0	0	0																						0	
	0	0	0	0	0	0	0	0	0																						0	
Total	26	26	20	24	17	17	30	70	117																							

Students

Date

Number of times
students have clicked
on two forums

User Activity in Forums

Forum	Hits	Per cent
	0	0.00%
	0	0.00%
	0	0.00%
	0	0.00%
	0	0.00%
	0	0.00%
	0	0.00%
	0	0.00%
	0	0.00%
	0	0.00%
	285	51.35%
	270	48.65%
	0	0.00%
	555	

Submission date

Activity – forum

Run the forum report for a specified date.

Can you think of a way to use the data to encourage more student interaction in the forums?

Submissions Analytics

Tracking student submissions

Course Management

▼ Control Panel

▶ Content Repository

▶ Course Tools

▼ Evaluation

Course Analytics

Course Reports

Performance Dashboard

Retention Centre

SCORM Reports

▶ Grade Centre

▶ Users and Groups

▶ Customisation

▶ Packages and Utilities

Course Analytics



Course At-a-Glance

This report compares this course against other courses in the same department.

› Last Run: Wednesday, 18 March 2020 12:32:27 PM AEDT



Activity and Grade Scatter Plot

This report plots the distribution of student activity against their grades in this course.

› Last Run: Wednesday, 8 April 2020 3:59:26 PM AEST



Activity Matrix

This report shows a visual representation of student activity in the course.

› Last Run: Never



Course Submission Summary

Summary of User Submissions for this Course

› Last Run: Wednesday, 8 April 2020 4:15:21 PM AEST



Submissions analytics

Unit Submission Summary

Learn Unit Information

Academic Staff	
Unit ID:	
Term:	Autumn session (Semester 1)
Status:	Unavailable
Instruction Mode:	Blended
Students Enrolled:	529
School:	SCHOOL OF SOCIAL SCIENCES

Student Activity Summary (529 Students)

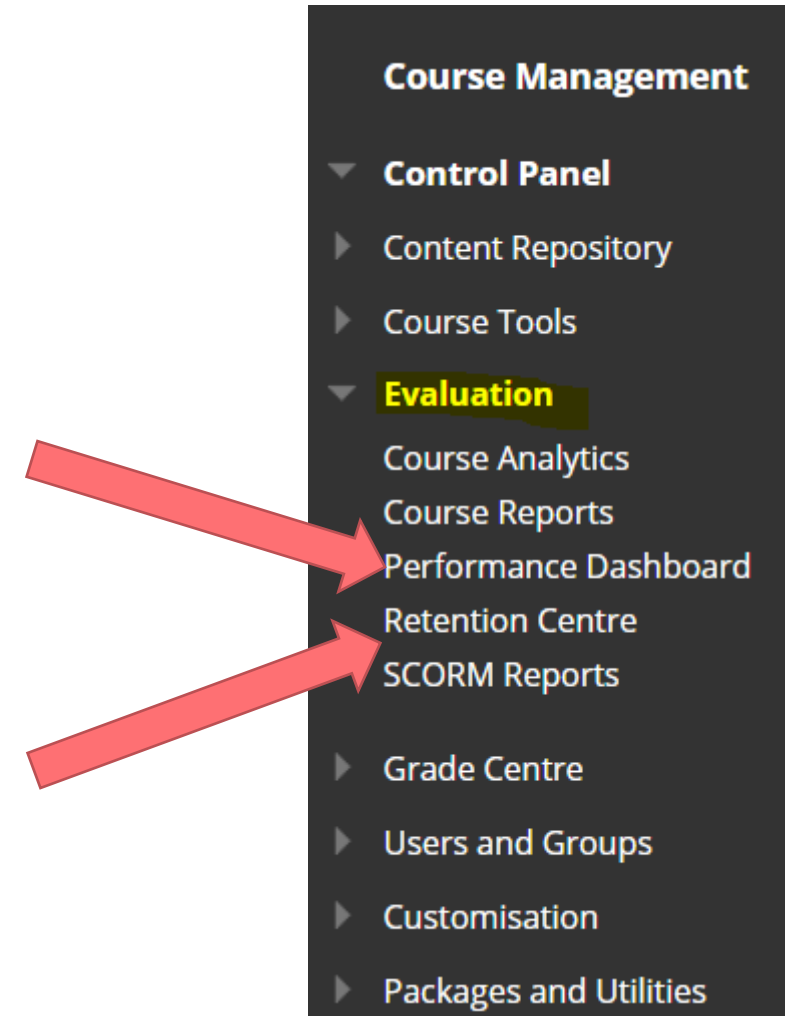
↑ > Avg. + 10%	→ Within Avg. +/- 10%	↓ < Avg. - 10%	● NA
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SUBMISSIONS							
STUDENT NAME	ENROLL STATUS	STUDENT	AVG	DATE OF LAST SUBMISSION	DAYS SINCE LAST SUBMISSION	LAST SUBMISSION TYPE	
	COMPLETED UNIT	16 ↑	9.0	07/06/2020	148	TurnItIn	
	COMPLETED UNIT	11 ↑	9.0	04/06/2020	151	TurnItIn	
	COMPLETED UNIT	9 →	9.0	14/06/2020	141	TurnItIn	
	COMPLETED UNIT	11 ↑	9.0	07/06/2020	148	TurnItIn	
	COMPLETED UNIT	11 ↑	9.0	07/06/2020	148	TurnItIn	
	COMPLETED UNIT	8 ↓	9.0	10/06/2020	145	TurnItIn	
	COMPLETED UNIT	11 ↑	9.0	08/06/2020	147	TurnItIn	
	COMPLETED UNIT	11 ↑	9.0	06/06/2020	149	TurnItIn	
	COMPLETED UNIT	9 →	9.0	23/05/2020	163	TurnItIn	

- Summary on last submission item for individual students

Combining parameters

- We looked at students' behavioural engagement
- We looked at students' submission patterns
- We looked at students' tools usage
- Can we combine them?



Retention centre

Students currently at risk

4

View students not at risk

STUDENT ▲	MISSED DEADLINES	GRADES ALERT	ACTIVITY ALERT	ACCESS ALERT
Blackboard4 Training4
Blackboard5 Training5
Blackboard2 Training2
Blackboard3 Training3

Your course activity

Last login: 04-Jun-2014 @ 11:50

ASSESSMENT ⓘ

Your grading is all up to date

INTERACTION & COLLABORATION ⓘ

Discussion Board

No activity yet

Blogs

No activity yet

Journals

No activity yet

Groups

Create a group

2

LEARNER SUPPORT ⓘ

No activity yet

Post an announcement

COURSE DESIGN ⓘ

Last content created on 30-May-2014:

Assignment 2

Students you are monitoring

Blackboard1 Training1

Last Access

4 days ago

Activity

337% above average

Grade

2.17% above average

Missed Deadlines

0

Other information you are monitoring

GRADES ALERT

Grade for Assignment - Assignment 1[10] is 10 percentage above the class average

2 students meeting rule<

Course Management

Control Panel

Content Repository

Course Tools

Evaluation

Course Analytics

Course Reports

Performance Dashboard

Retention Centre

SCORM Reports

Grade Centre

Users and Groups

Customisation

Packages and Utilities

Monitor students

Monitor missed deadlines, grades, activity or access

Your own activity in the site

Results cannot be exported!

Customising the retention centre

Retention Centre

The Retention Centre helps you discover which students on your subject are at risk. You can communicate with struggling students and help them take immediate action for improvement. You can also keep track of patterns over time. [More Help](#)

Customise

Create Rule ▾

Actions		NAME	TYPE	CRITERIA
<input type="checkbox"/>	INCLUDED IN RISK TABLE	Default Activity Rule	Course Activity	20% below course average in the last 1 Week(s)
<input type="checkbox"/>	Yes	Default Course Access	Course Access	Last access greater than 5 day(s) ago
<input type="checkbox"/>	Yes	Default Grade Rule	Grade	External Grade is 25% below the class average
<input type="checkbox"/>	Yes	Default Missed Deadline	Missed Deadline	1 deadline(s) have been missed by more than 0 days

Activity – retention centre

Do the rules in the retention centre work for your context?

Why? Why not?

How do you think you might use the retention centre when you next run your unit?

Performance Dashboard

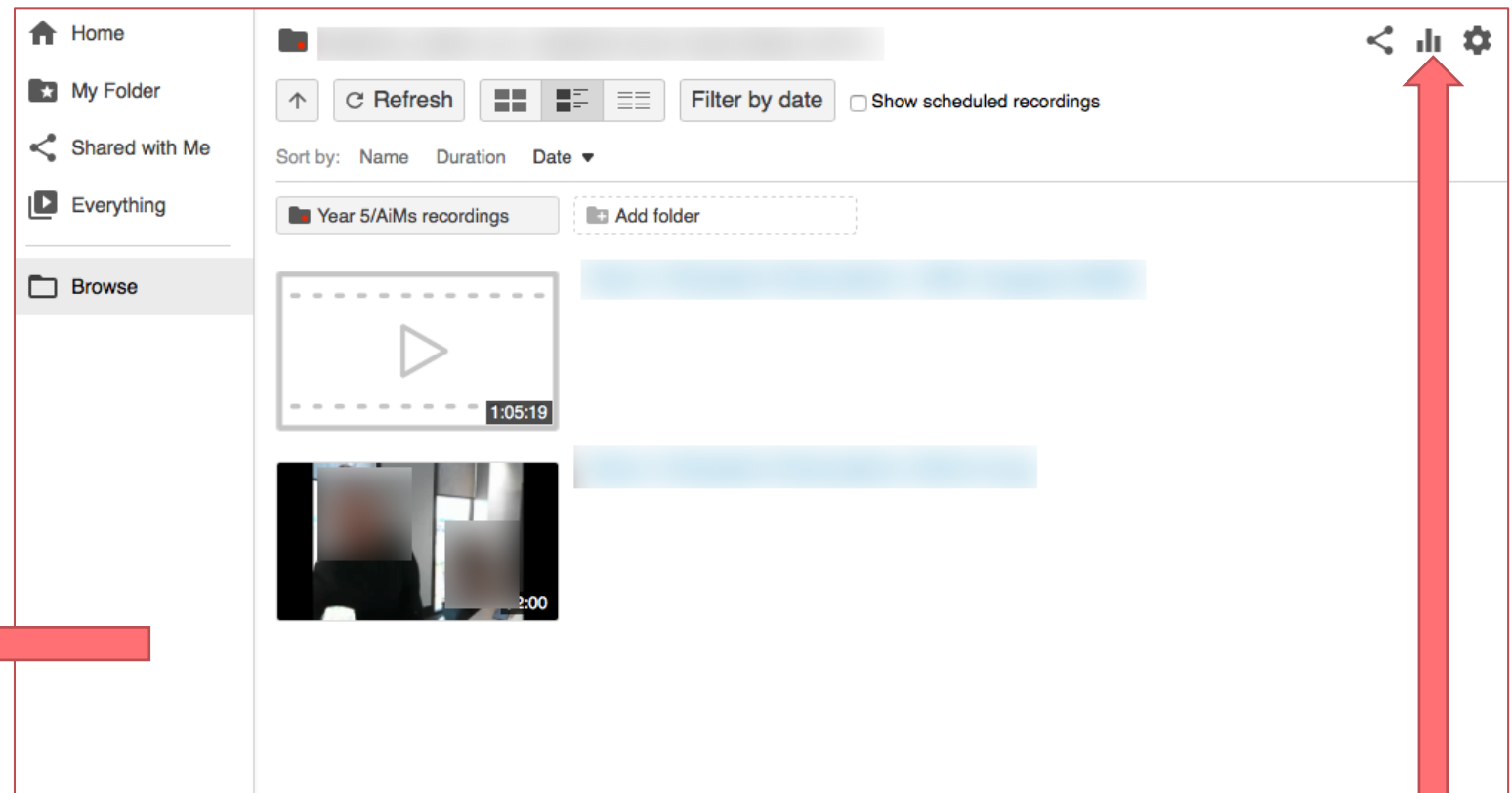
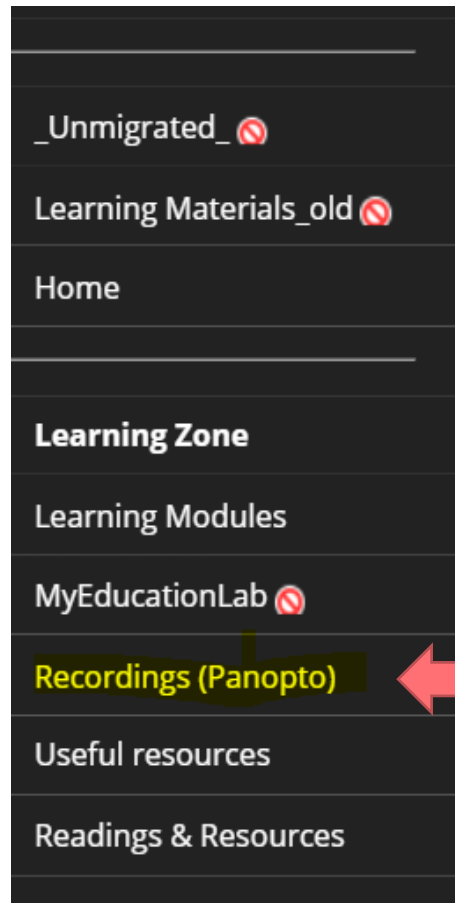
Course Management

- ▼ **Control Panel**
- ▶ Content Repository
- ▶ Course Tools
- ▼ **Evaluation**
- Course Analytics
- Course Reports
- Performance Dashboard
- Retention Centre
- SCORM Reports
- ▶ Grade Centre
- ▶ Users and Groups
- ▶ Customisation
- ▶ Packages and Utilities

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LAST NAME	FIRST NAME	USERNAME	ROLE	LAST SUBJECT ACCESS	DAYS SINCE LAST SUBJECT ACCESS	REVIEW STATUS	ADAPTIVE RELEASE	DISCUSSION BOARD ▲	CUSTOMISE RETENTION CENTRE	VIEW GRADES
			Student	31/10/2020 11:34:38 PM	2	0		1	0/4	
			Student	29/10/2020 8:36:13 PM	4	0		1	0/4	
			Student	31/10/2020 9:39:49 AM	3	0		1	0/4	
			Student	29/10/2020 7:22:14 PM	4	0		1	0/4	
			Student	01/11/2020 7:51:15 PM	1	0		1	0/4	
			Student	31/10/2020 11:10:00 PM	2	0		1	0/4	
			Student	30/10/2020 3:31:28 PM	3	0		1	0/4	

Videos

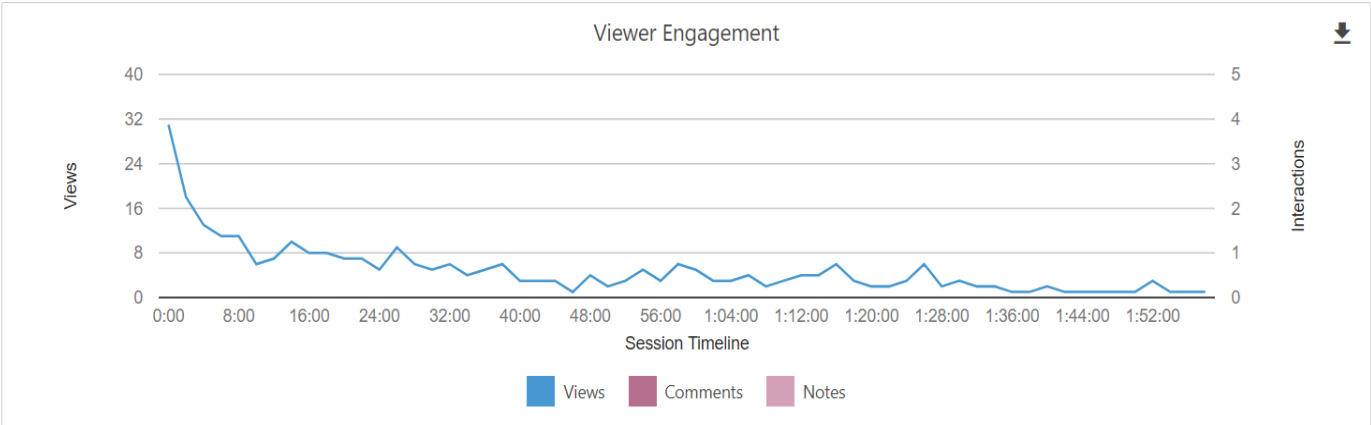
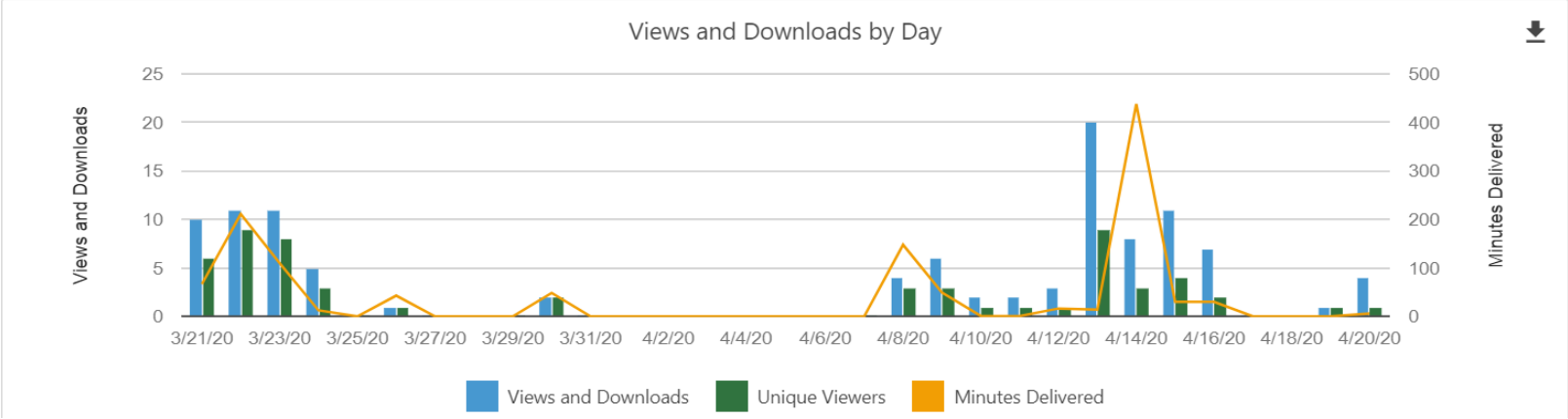


Analytics

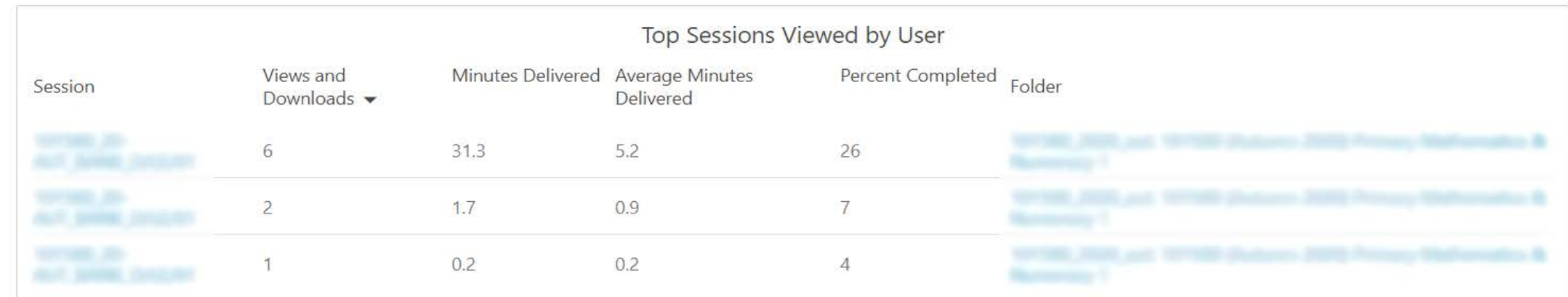
Panopto analytics – global view

Folder Dashboard

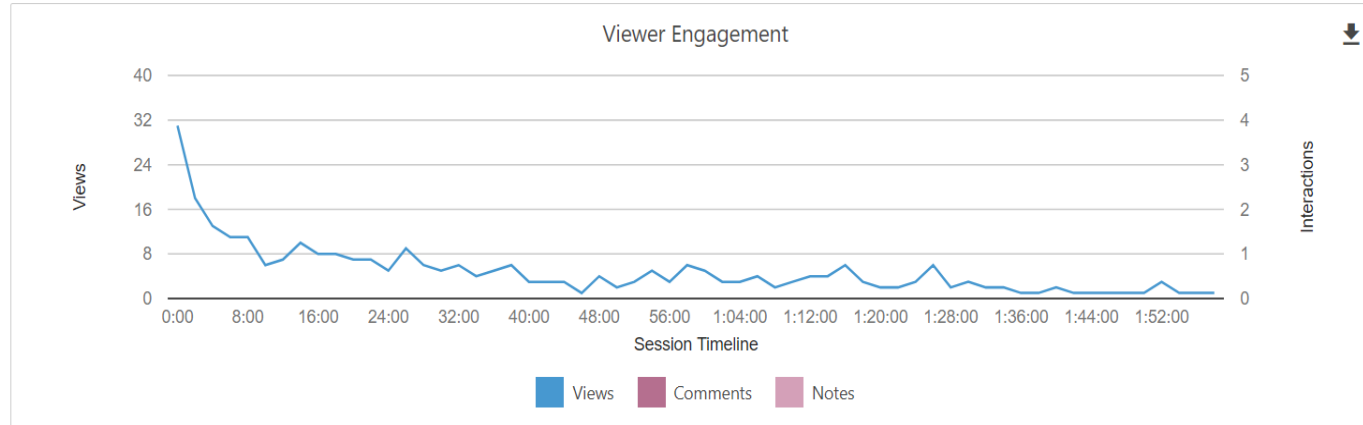
Last 30 days ▾



Last 30 days ▾



Activity – panopto



What does this graph tell you about student engagement with the video material?

Based on this data, what do you think you can do to increase student engagement with the material?

When to use what?

Period in Semester	Reason of tracking	Useful Reports
Start of semester	Not logged in students	Unit At A Glance
Around census date	Not engaged students, At-risk students	Performance Dashboard, Retention Centre
Around submission due	Non submission students	Course Submission Summary, Unit At A Glance, Retention Centre
Throughout the semester	Class engagement	Unit At A Glance, Retention Centre, Performance Dashboard
End of semester	Reflection of class participation, Activity vs Grade	Unit At A Glance, Activity vs Grade Scatter Plot, Activity Matrix

Summary of reports

REPORT NAME	DESCRIPTION	WHAT DOES IT ADDRESS	LIMITATIONS
Course (Unit) At A Glance	Looking at a unit from a summary point of view but also having ability to drill into details	How is the engagement pattern in my unit? Is my unit performing in par with its counterparts?	Doesn't address what is the expected engagement level. Higher access and grades = Better learning? Engagement = Outcome?
Activity and Grade Scatter Plot	Deriving a correlation map between the accesses and the grades	Is there a relationship between activity and outcome?	Only takes vUWS Score into consideration which may account for small portion of the total grades. Cannot switch into another activity type.
Activity Matrix	Gives a matrix of activity pattern throughout semester and compares with Grade	Which students are consistently active/inactive? Is interactivity leading to better outcome?	Doesn't tell how the matrix is defined. Cannot switch to another activity type or change color scheme

REPORT NAME	DESCRIPTION	WHAT DOES IT ADDRESS	LIMITATIONS
Student Submissions Summary	A summary of the submissions patterns of individual students	Which student hasn't submitted regularly? Which students are below par submissions?	A mapping of the submitted vs unsubmitted items is not possible
Course Reports	A detailed breakdown for different kinds of items and tools used in the site	Which module is doing engaging/ less engaging? Comparison among groups The Discussion board breakdown	The amount of useful information is relatively low in comparison to the size of the report The run time could take hours for some report There is limit of 180 days from the date of run
Performance Dashboard	A single stop for the overall performance of students	When did my students last login? Are my students at risk? Are students contributing to the conversations?	Doesn't display grade but redirects to the Grade Centre Unnecessary fields are not customizable
Retention Centre	The dashboard to view the at risk students	Who are the "at-risk" students?	Doesn't allow to export the file

What next?

What I can do now

- Inform and communicate (using various reports)
- Intervene (e.g. using the retention centre)

Module number 2

- Using vUWS tools/data to improve the evaluation of learning in your unit

Module number 3

- Using learning analytics to improve your learning design, delivery of your unit and teaching practice