

Learning Analytics Tools

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Lecture no. 4.8

Descriptive Analytics- Example II

In this video, we will talk about another example of a dashboard that is Descriptive Analytics Dashboard.

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MOOC Analytics

- IITBombayX – IIT Bombay online platform to offer MOOCs.
- edX platform
- edX platform – OPENedX insights provides analytics based on the learner behaviour

In last week, we have seen what is MOOC data and what data to collect from IIT Bombay X. IIT Bombay X is an online platform that offers MOOCs course using the edX platform. The edX platform also offers insights into the data collected from the participants. So, that is called insights.IITBombayX.com. So, the course instructor gets access to those so it is called open edX-based learning behaviour interaction thing. So, let us look at that MOOCs dashboard in this video.

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Activity

MOOCs Analytics

- In a previous lecture, we saw the data collected from Moodle.
 - Enrolment
 - Engagement
 - Performance

What data are important to show in the dashboard and how do you represent?



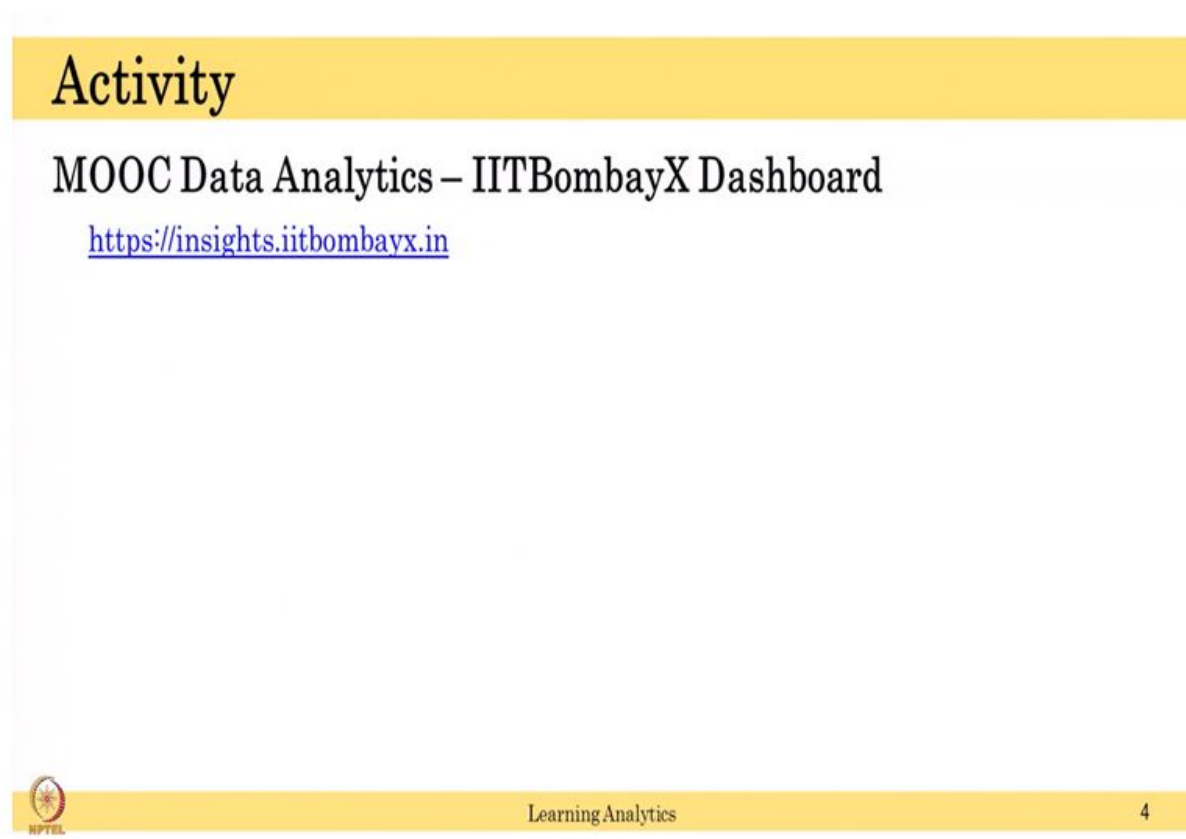
Learning Analytics3

So, before we look at the MOOCs analytics dashboard, a couple of weeks ago we saw what data could be collected from Moodle. For example, enrolment data, engagement data from the students, enrolment data will give you the profile information and behaviour, and also we collected the performance in the course.

So, if you have this kind of data so what would like to show in the dashboard. So, you remember what data you collected from the student's interaction behaviour. If you have this information from thousands of users who have taken your course. Which data is important to show in the dashboard to the instructor (consider stakeholder is the instructor).

And how do you represent it? By a Line chart, a Bar chart which data in which way. Take a movement to think about it and write down which data you want to show in the dashboard and how do you want the represent it. Please continue the video after listing down the answers.

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The slide features a yellow header with the word "Activity" in black. Below the header, the title "MOOC Data Analytics – IITBombayX Dashboard" is displayed in black, followed by the URL <https://insights.iitbombayx.in> in blue. The footer is yellow and contains the NPTEL logo on the left, the text "Learning Analytics" in the center, and the number "4" on the right.

So, let us look at the MOOC data analytics IIT Bombay dashboard here is the website. This is accessible only to the instructor so I am going to look at this website now.

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CC-ITB Internet Access x Course Home - ITBomday/ETI x

https://insights.itbomday.in/courses/course-v1:ITBomdayX+ET611Tx+2018_T1/

OPENedX INSIGHTS Pedagogy for effective use of ICT for school teachers Help ramikumar_iitb

Course Home Enrollment Engagement Performance Learners

Who are my learners?

Enrollment

How many learners are in my course?

Activity

How old are my learners?

Demographics • Age

What level of education do my learners have?

Demographics • Education

What is the learner gender breakdown?

Demographics • Gender

Where are my learners?

What are learners doing in my course?

Engagement

How many learners are interacting with my course?

Content

How did learners interact with course videos?

Videos

How are learners doing on course assignments?

Performance

How are learners doing on graded course assignments?

Graded Content

How are learners doing on ungraded exercises?

Ungraded Problems

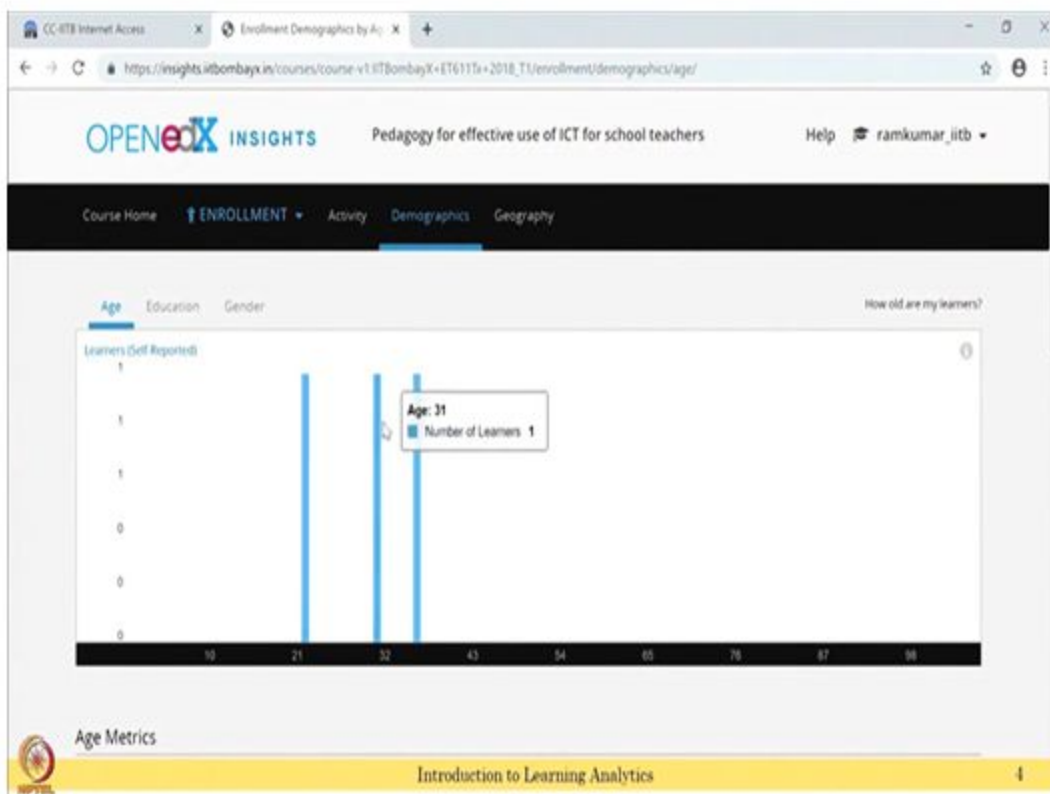
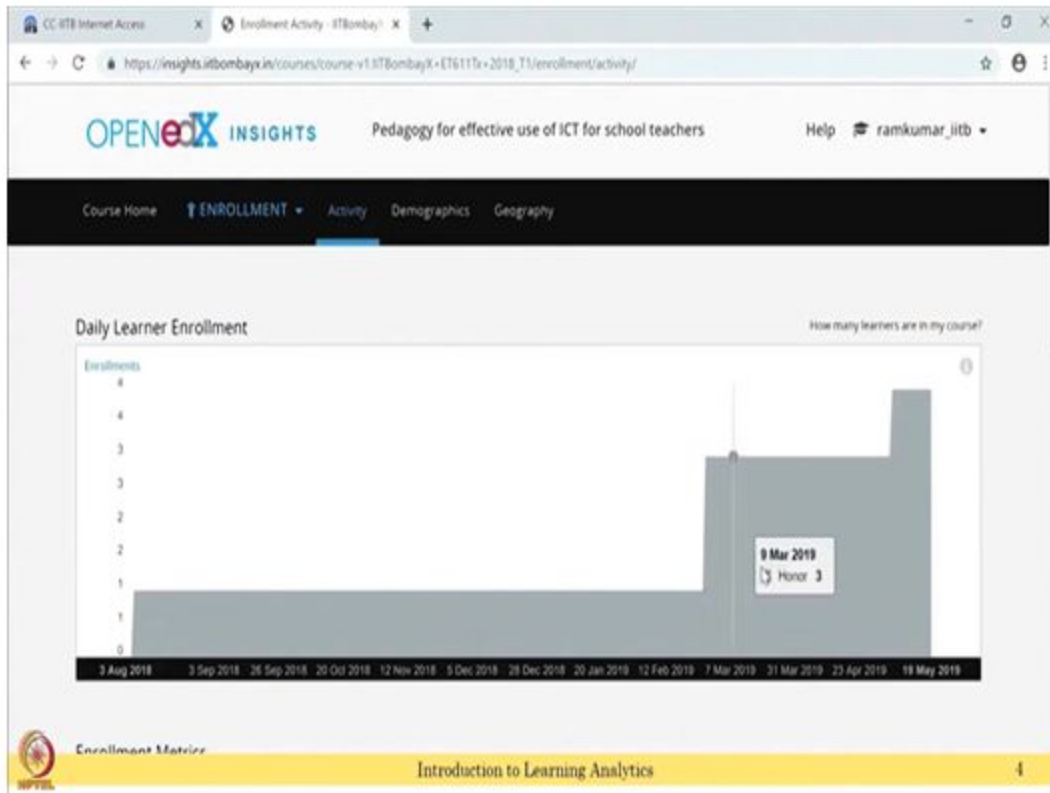
What are individual learners doing?

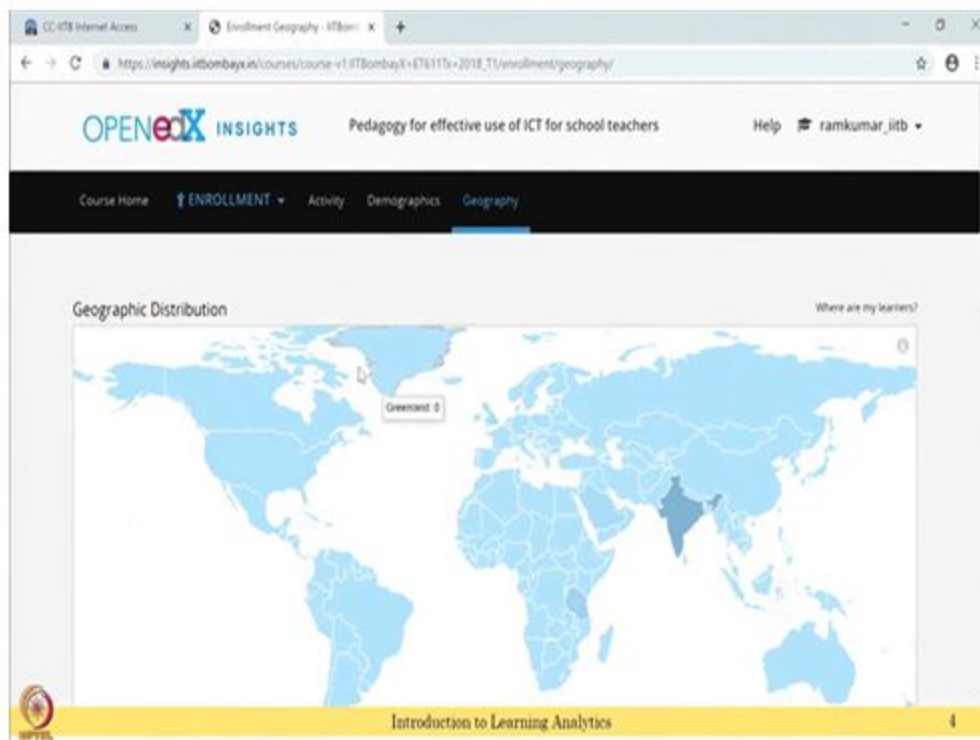
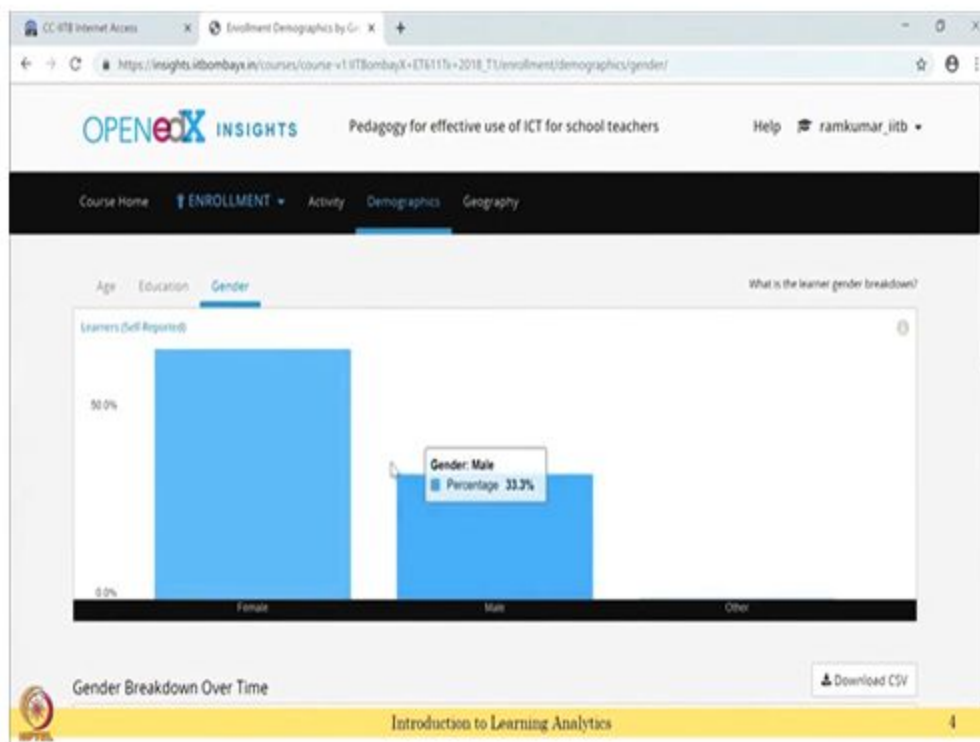
Learners

Who is engaged? Who isn't?

Introduction to Learning Analytics

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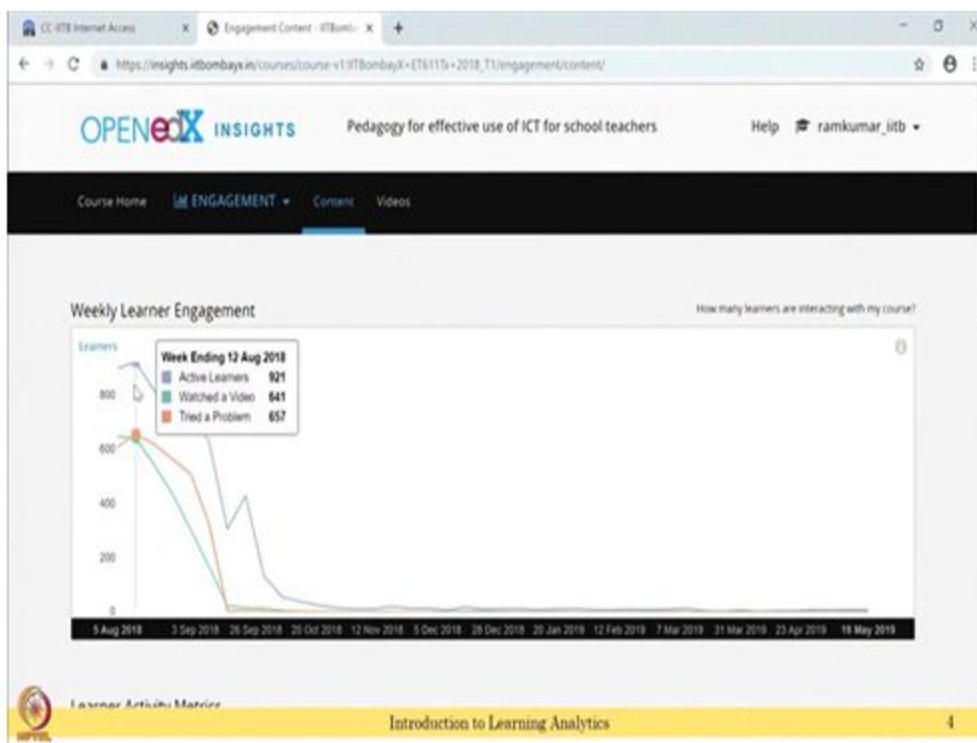


We are looking at the IIT Bombay edX insights page. We are talking about a course called pedagogy for effective use of ICT for schoolteachers. This Analytics is only for this particular

course. There are 4 types of things like enrolments, engagements, performance and learners. If you talk about enrolments you will have the value like activity demographic and geography. So, daily learner enrolment over the period of time the enrolment is less just because the students do not enrol and they can take a course directly. It is shown using the Stack chart.

Here you can see the users age, their education, and their gender. This data is optional if the user enters this data then only it will be displayed otherwise it will be not be displayed. Importantly, the “open edX insights” offer you the tabular form of data. Data visualisation is not just showing the data in a graph it also should have data so that users can use those data. When you look at the geography, most people are from India and few participants from Tanzania. And there is one participant from the United States.

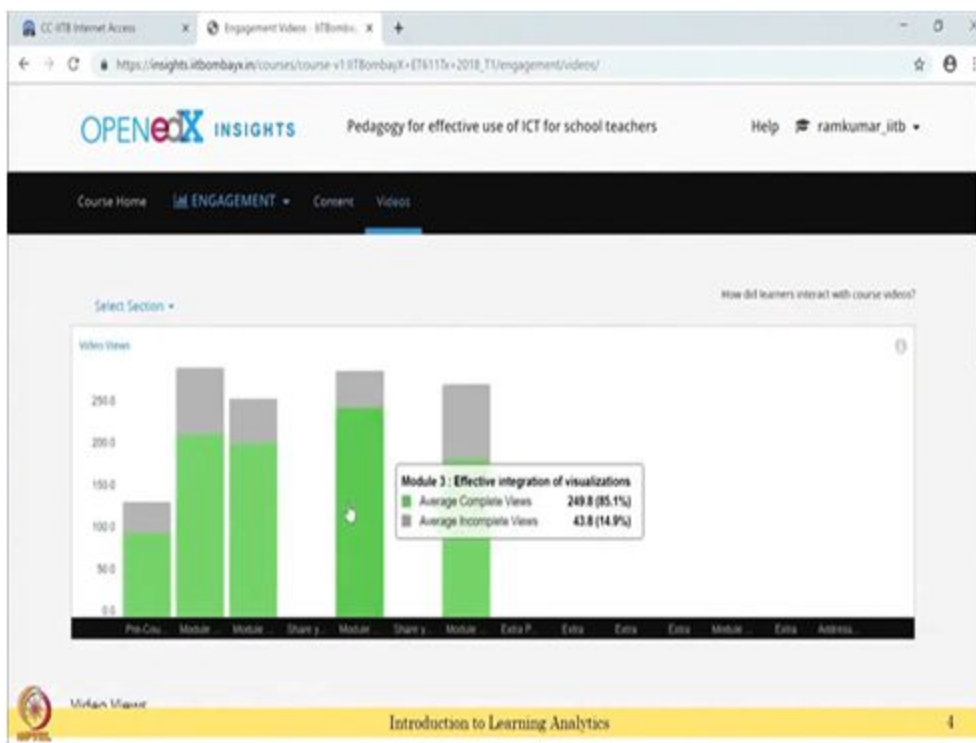
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Let us look at the engagement, here you can see there are a lot of active users initially. The course is only offered for four weeks. So, there are a lot of active users in the first week but only some active users continue. Then the number of active users dropped after the fourth week. So,

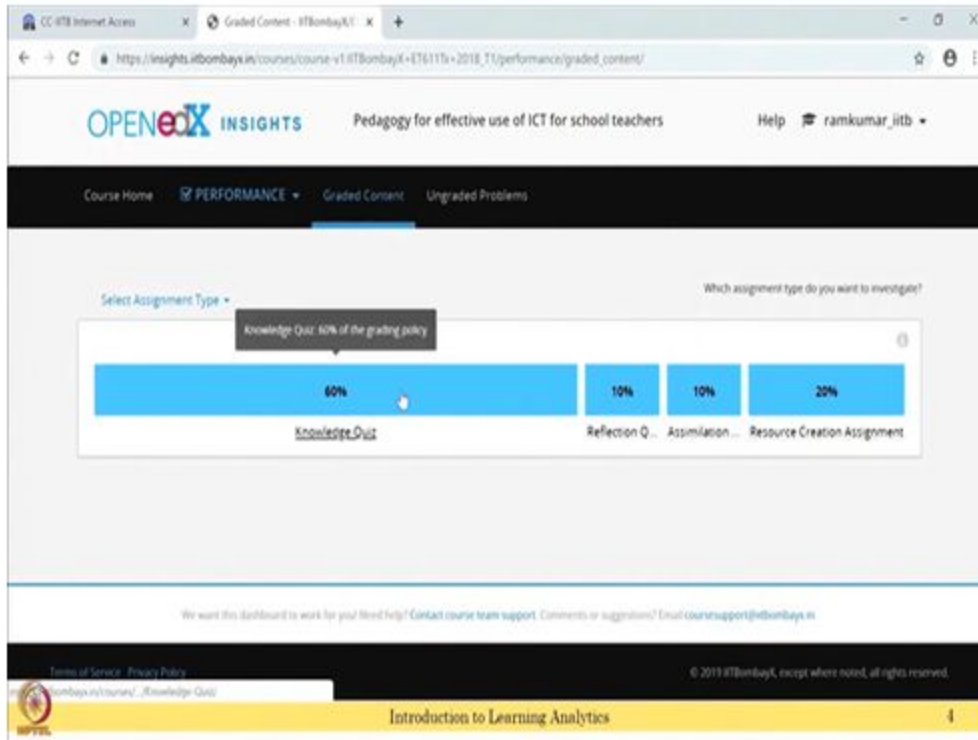
the active learners are shown in this chart. Also, this chart indicates how many problems they tried, how many problems they tried to answer it. And this green colour indicates they watched a video. Active users are people who logged into the system, watched videos and looked at the page (or combination of the above two). This represents the active users, but really speaking the students who are watching the video is gradually reduced for the weeks.

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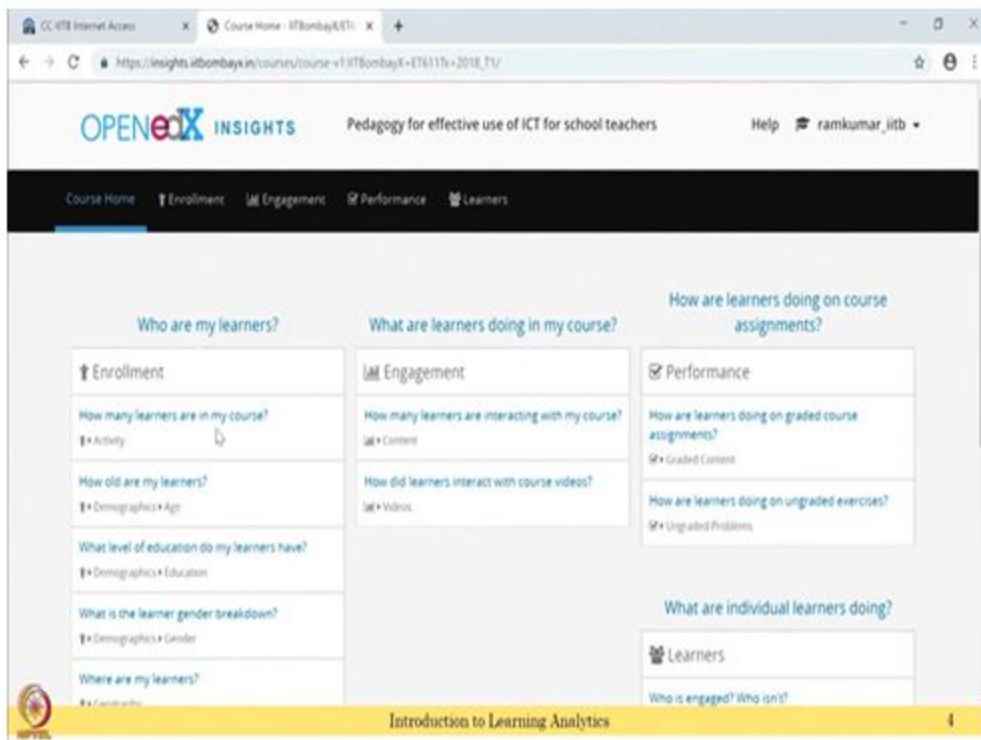
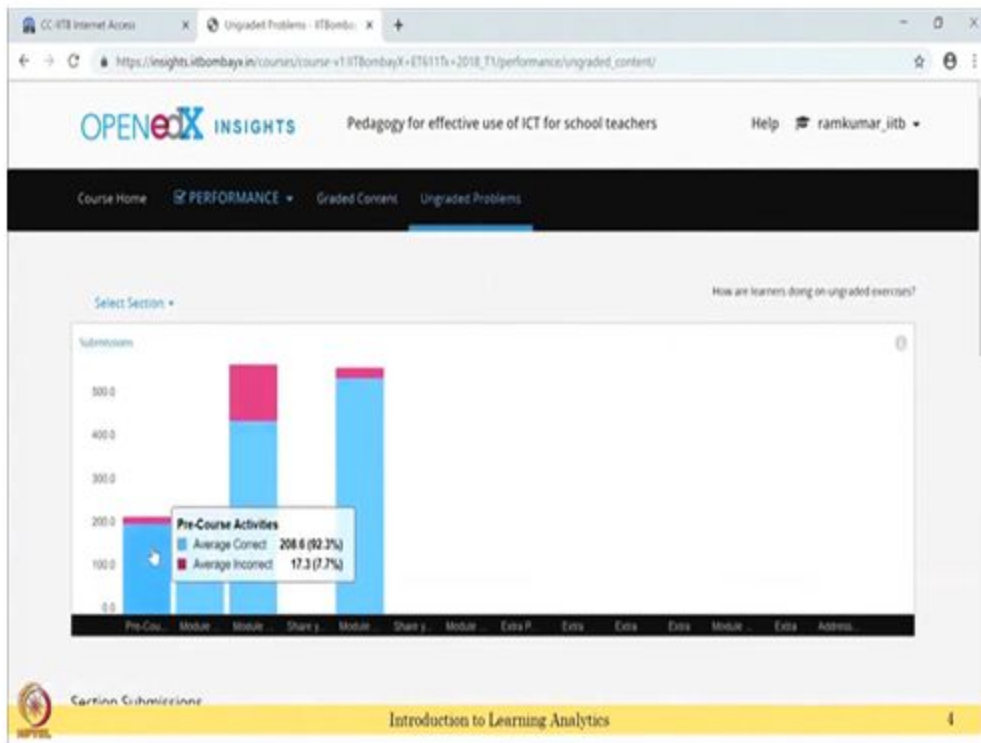
So, if look at the week's video data how many videos have been watched by the user by over the week. For the module-1 on an average 73 per cent of participants or the students enrolled in the course completed watching the video. So this is a pre-course module. For each module what is the percentage of users who watched this particular video. As I mentioned in order to collect this kind of data we need to collect each users watching time then we need to compute the average then represent the data such a format just Stack chart format.

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Let us look at the performance in knowledge quiz, reflection quiz, assimilation quiz and resource creation assignment. There are like four different performance and each performance has its own weightage of marks.

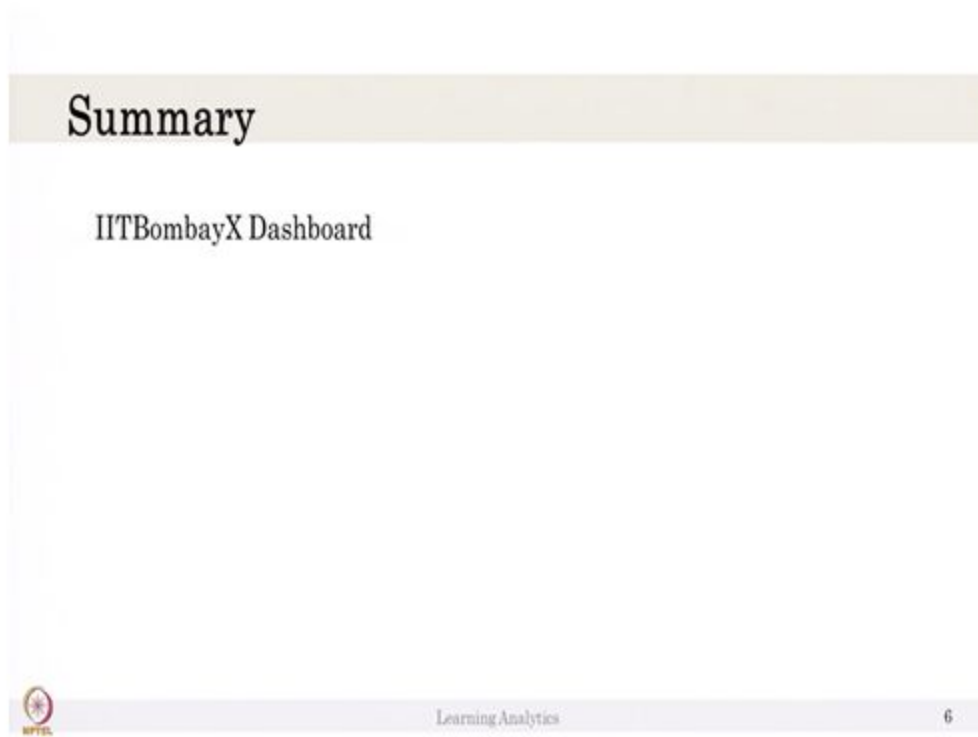
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And the students' performance in each of this is shown here. Here we have seen the data you have seen data for the learners the, data of who was doing the course and how they interacted the

video and things. From this you can ask lots of question, how many learners are in my course this can be answered by looking at the particular chart. So, these are the questions you want to ask from the data which can be used directly answered from the graphs.

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So in this video, we saw IIT Bombay X Dashboard we looked at the data collected and its representation. Thank you.