

Google Classroom, Google Apps and Chrome Extensions-An Overview

V.Rachel

Assistant Professor, Department of Computer Science, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore

Abstract - In the twenty-first century significant changes are occurring related to new scientific discoveries, digitalization, globalization, the development of astronautics, robotics, and artificial intelligence and machine learning. This century is called the age of digital technologies and knowledge. Till the Corona virus pandemic situation most of the educational institutions adapted the traditional classroom lectures. The academic institutions that were unwilling to change their traditional teaching learning methods were forced to shift to the new paradigm of online teaching and learning methods during the crisis. This paper focuses on the various online teaching learning tools available and how it can be used effectively.

Index Terms - Educational Technology, Corona virus, online tools

1.INTRODUCTION

The world at present is in a time where the global economy has been badly affected due to the deadly virus Corona (Schulten, 2020). Among all the sectors, the entire education sector is the most badly affected by the virus where the students were not able to attend the physical classes and listen to the lectures. The educational institutions that adapted the traditional teaching methods were forced to shift to online teaching learning methods (LokanathMishra, 2020). No one is aware when the situation will become back to normal and continue with face to face teaching. In higher education the teaching and learning faces new challenges. Higher educational institutions around the world are undergoing rapid changes as they adapt to the paradigm shift of the knowledge society. While the development, maintenance and dissemination of knowledge have long been the primary goals of higher education institutions, recent pandemic situation are forcing universities to adopt new approaches in the way these goals are achieved (Shivangi Dhawan, 2020). Educators are being asked

to convey quality teaching practices with less human resources to meet the learning needs of a growing student population.

Information and Communication Technologies (ICTs) have made a lot of impact on all parts of society, including education. So during the pandemic situation many educational institutions adopted few tools and technologies and connected with the students. Many faculty members are still unaware of all the tools and technology available to use them in their teaching pedagogy. In this article an overview of the available online tools will be discussed.

1.1 Online Tools

There are so many online tools available and each one has a unique feature of its own. The following list shows few of the online tools that can be used in online teaching pedagogy. Google classroom, OBS, Openshot, Armcharts, Draw.io, Mindmap, Renderforest, otter.ai, Kahoot, Quizz, Jamboard, Powtoon, Youneedawiki, Peardeck etc.

1.2 Google Apps

If a person has a Gmail account, then he/she can access the Google apps. There are so many Google apps available like Classroom, Docs, Sheets, Slides, Meet, Drive, Jamboard etc. Fig. 1 shows how Google apps can be accessed by clicking the 'Waffle' which is found in the top right corner of the browser when using Gmail.

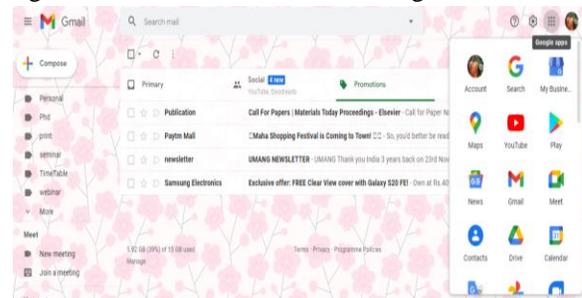


Fig.1 Accessing Google Apps

1.2.1 Google Classroom

Google classroom is a place where the faculty can create classroom for the subject, he/she is going to handle (Schoon,2020). Classroom can be accessed via Google Apps. First the faculty has to create a classroom. Here emphasize is, Gmail account in Gsuite for Education is needed to create classroom. Personal Gmail account cannot be used to create classroom for school or college students. To create classroom, click the plus icon as it shown in the diagram below (Fig.2). Enter the details like Class name (a required field), Section, Subject, Room as shown in Fig.3.



Fig.2 Creating a class

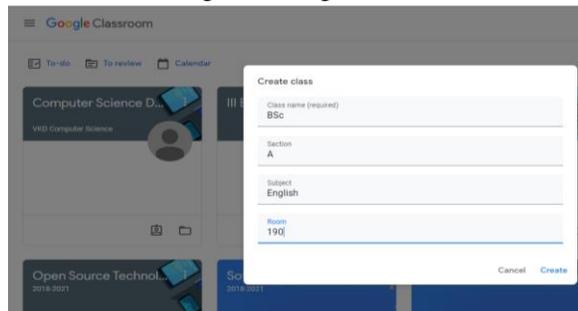


Fig.3 Details to be entered- Class name (required), Section, Subject, Room

Once the details are entered, (here have given class name as BSc) click Create and classroom is created with the Class name BSc that has been entered (Fig.4).

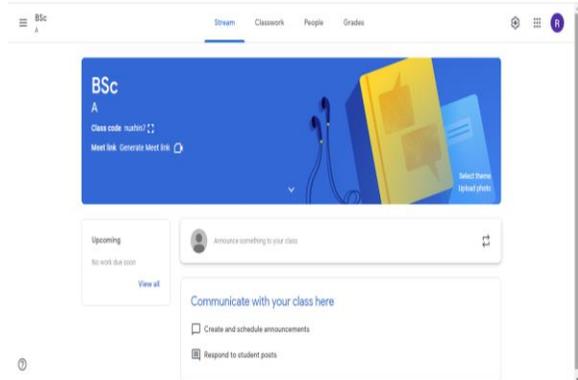


Fig.4 Classroom created with the class name BSc Stream, Classwork, People, Grades are the four tabs available. Click People tab where students and teachers can be added. Teachers and Students can be added by clicking Invite teachers and Invite students

(Fig.5). Only those students whose Gmail account is in Gsuite can be added.

Stream is used to post announcements (Wash, 2014) and to communicate with the students. If any assignment or quiz is due, it will be shown in the stream page on the left-hand side. (Fig.4)

Classwork is where the teacher can post material, assignment, and quiz (Fig.6) Topics can be created and related material can be moved on to the corresponding topics. Material can be uploaded from Google drive, links can be given, YouTube can be uploaded, and files which are stored in our personal computer can also be uploaded (Fig.7). Material can also be created in the form of Google docs, sheets, slides, drawings, and forms. For material to be created, title has to be given mandatorily. Description is optional. Once material is uploaded or created it can be posted for all students or for particular students of a particular class. Either it can be posted immediately or scheduled and posted or can be saved as draft (Fig.8).

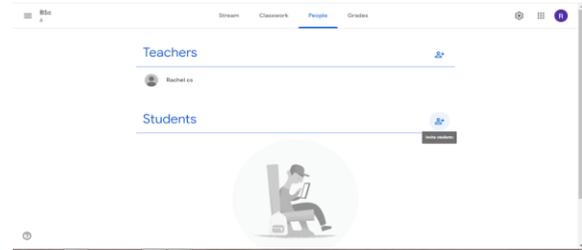


Fig.5 Inviting teacher and students to the classroom

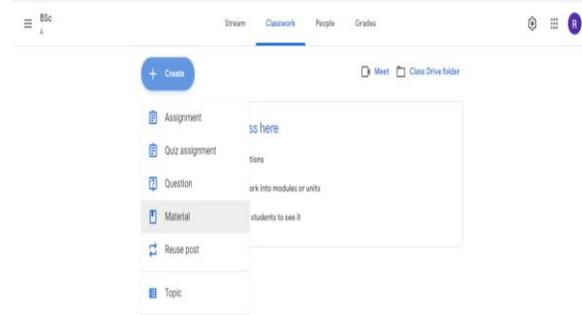


Fig.6 Material, Assignment and Quiz in Classwork

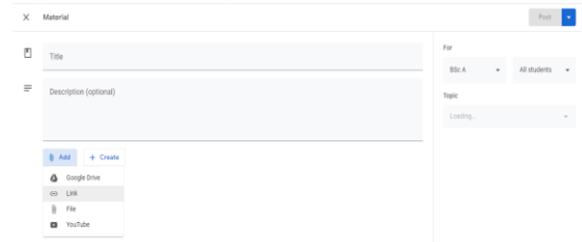


Fig.7 Uploading of material

Assignment can be given to students by giving the title, points, due date, and time. Students can upload

the file within the particular date and time. Even if the time exceeds, still the student can upload the file, but it will be shown as Turned in late. As like material, file can also be uploaded or created. File can be created in the form of Google docs, sheets, slides, forms. Rubrics can be created with the criterion title, points, level title and description (Fig.9). Originality reports i.e checking for plagiarism can be selected. Can be enabled for 5 students, they can check their documents for plagiarism before uploading. (Fig.10) Quiz can be created in the form of Google forms. In forms we can add questions of type multiple choice, single choice, short questions, descriptive questions. Images, YouTube links can also be added. Grades can be given to the students and returned to them so that they can view their marks.

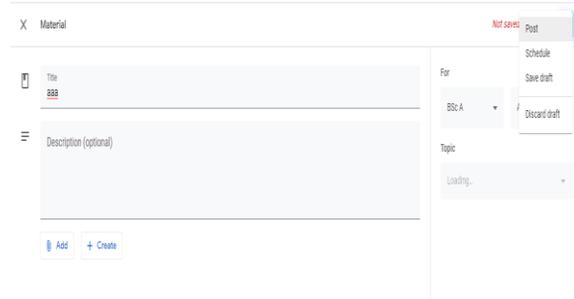


Fig.8 Post, Schedule or Save draft of material

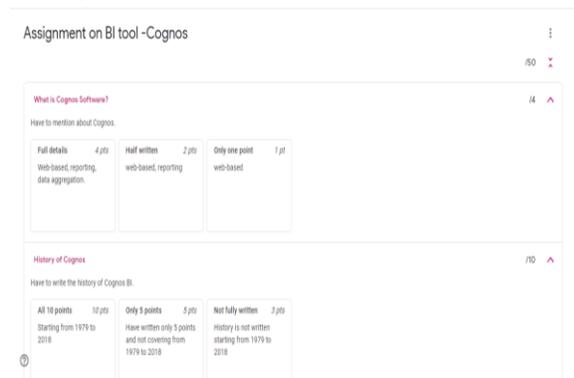


Fig.9 Rubrics creation

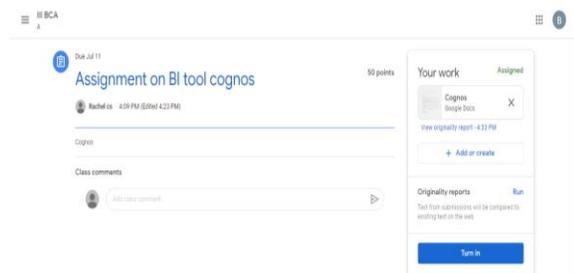


Fig.10 Originality report

Google docs, sheets, slides can be used to work in a collaborative manner. Can create a doc and then share

with the people who need to work on it. Another feature in docs is Voice typing and any language can be used to speak. Math equation can be typed by adding the add-on. Google slides can be used to create presentation. It has so many extra features compared to MS-PowerPoint. Google sheets can be used to create sheets. Google meet is used for online meeting where contents can be shared for taking class. Sharing contents can be done in three ways- window, tab and entire screen. We can record the meeting only when the account is in Gsuite. Attendance is an extension which can be downloaded through Chrome webstore. Through attendance the list of participants in the meet is automatically recorded in Excel sheet with date and time. Nod is another extension which can be added in Google meet. Nod can be used to clap, raise their hand without interrupting the speaker.

1.2.2 Open Broadcaster Software (OBS) and Openshot
 OBS can be used for recording purpose. E-content can be prepared and explanation of it can be recorded with the help of OBS. The video file can be saved and uploaded in the Google classroom. The students can view the video and learn whenever they need it. While recording the video webcam also be used. Openshot can be used for editing the video.

1.2.3 Amcharts
 Amcharts can be used to create charts online. It has so many types of charts like bar, line, pie etc. Any type of chart can be used with interesting background colors and can be saved in Google drive or can be downloaded. Use the link <https://live.amcharts.com/> to create charts.

1.2.4 Draw.io
 Draw.io is used to draw flowcharts, making flowcharts, process diagrams, org charts, UML, ER and network diagrams. Use the link www.draw.io to draw flowcharts etc.

1.2.5 Mindmap
 Mindmap helps in collecting knowledge, remember and creative thinking of ideas. It is a diagram which is used to visually organize information. There are so many mindmap software's available. The following link can be used <https://www.mindmaster.io/> to create mindmap. There are so many templates available.

1. 2.6 Renderforest

Renderforest is used for creating high quality videos, logos, mockups and websites with minimal time and effort. So many templates are available for creating animated videos. <https://www.renderforest.com/>

1. 2.7 Creative Commons

The e-content or any material prepared by us can be copyrighted by using Creative commons. For creating creative commons, visit <https://creativecommons.org>, click share your work, Get started. Different types of licenses are available like adaptations of our work to be shared or not, commercial use of work etc. According to the criteria the license will be created. The license can be copied and pasted in the desired page.

1. 2.8 Otter.ai

In otter.ai voice to text conversion can be done. There is no need to type, instead the voice can be directly converted to text. The text can be saved as text file also.

1. 2.9 Jamboard

Jamboard is one smart display. Quickly pull in images from a Google search, save work to the cloud automatically, use the easy-to-read handwriting and shape recognition tool, and draw with a stylus but erase with your finger – just like a whiteboard. Jamboard can be opened from Google Apps.

1. 2.10 Kahoot

Kahoot is game based learning platform where multiple choice quizzes can be conducted for students. For each question time can be set up. Once the questions are added, a pin will be generated where it can be shared with the students and they can play the quiz.

1. 2.11 Quizizz

Quizizz allows conducting student-paced formative assessments in a fun and engaging way for students of all ages. The salient features include: Student-paced: Questions appear on each student's screen, so they can answer questions at their own pace, and review their answers at the end. <https://quizizz.com/>

1. 2.12 Powtoon

Powtoon is a web-based animation software that allows users to create animated presentations by

manipulating pre-created objects, imported images, provided music and user-created voice-overs. <https://www.powtoon.com>

1. 2.13 Youneedawiki

You Need A Wiki (YNAW) is a simple, yet effective tool for creating a wiki utilizing Google Docs for editing and Google Drive for storage. This tool is ideal if we work with Google regularly and maintain a Google Drive. Simply create an account and then import folders from Google drive into YNAW. The folders are converted into a wiki-style page. It is so much easier to read and navigate than clicking through a folder in Google Drive. Can create and edit Docs, Sheets, and Slides directly in YNAW too.

1. 2.14 Pear deck

Pear deck is the fastest way to transform presentations into classroom conversations. The following link can be used to create presentations <https://www.peardeck.com/google-slides>. A new presentation can be created, or an existing one can be modified.

3. CHROME TOOLS

3.1 Mercury reader

Mercury reader is an extension used in Chrome as it removes ad from website. When used it removes all ad present in website making to read the text and images clearly.

3.2 uBlock origin

uBlock origin is an extension which can be got from Chrome store. It is used to remove ad and video present in the website.

3.3 Pocket

Pocket is an extension which can be downloaded through Chrome store. Pocket extension is used to save webpage for later reading.

3.4 OneTab

Whenever there are too many tabs in a browser, click the OneTab icon which is a Chrome extension, which converts all the tabs into one single tab. When the tabs have to be accessed, it can either be restored individually or all at once.

3.5 Bitly

Bitly is a powerful tool used for shortening of URL which can be shared. It can be downloaded from Chrome store.

3.6 Awesome Screenshot and Screen Recorder

Awesome Screenshot and Screen Recorder is yet another powerful chrome extension where it captures screen and video. The captured screen and video can be shared with sharable links.

3.7 Read Aloud

Read Aloud is used to convert text into speech reader. It supports more than 40 languages. It can read PDF, Google Docs, Google Play books, Amazon Kindle.

3.8 The Great Suspender

A lightweight extension to reduce chrome's memory. It works perfect if lot of tabs are opened at the same time. Tabs that have not been viewed after a configurable length of time will be automatically suspended in the background, freeing up the memory and CPU being consumed by that tab.

3.9 Tab Resize

In Tab Resize Split Screen is made easy. Resize the CURRENT tab and tabs to the RIGHT into layouts on separate windows.

3.10 DuckDuckGo Privacy Essentials

This chrome extension is used for privacy. It protects data during searching and browsing, blocks hidden trackers on the sites. It also takes to encrypted versions of sites when possible.

3.11 Grammarly for Google

From grammar and spelling to style and tone, Grammarly helps to eliminate writing errors and find the perfect words to express.

3.12 Extensy

Extensy quickly enables/disables Google Chrome extensions. If there are too many extensions in toolbar, Extensy, the ultimate tool enables and disables all the extensions for Google Chrome.

3.13 Insert Learning

Insert instructional content on any web page. Insert Learning saves teachers and students time while keeping students engaged. Teachers can insert

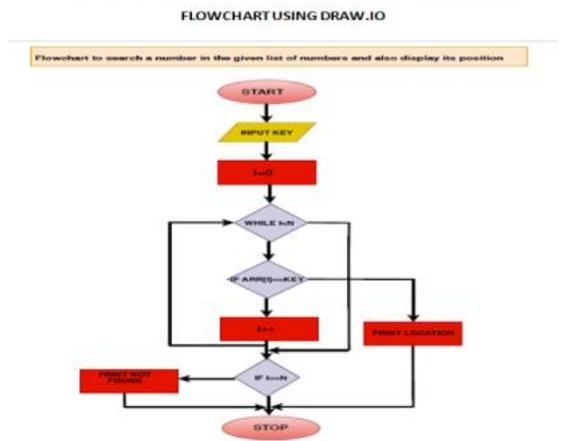
questions, discussions, and insight directly into any website.

4. CONCLUSION

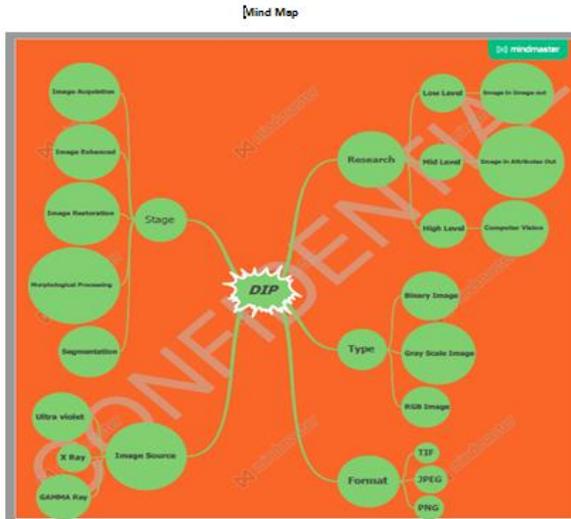
Google classroom is a free tool which can be used by any educational institutions when they do not own their own Learning Management System. Paperwork is reduced when classroom is used for assignment submission, assessment through Google forms. The interface in classroom is very pleasant and the language used is easy to understand. The e-content can be prepared in an effective manner using the various online tools available. Instead of text alone, animation-based videos and presentation can be included for effective teaching, so student do not get bored when they in online mode of learning.



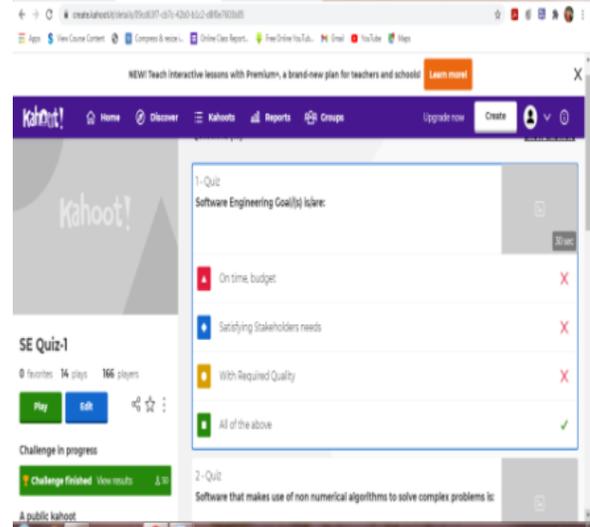
Amcharts



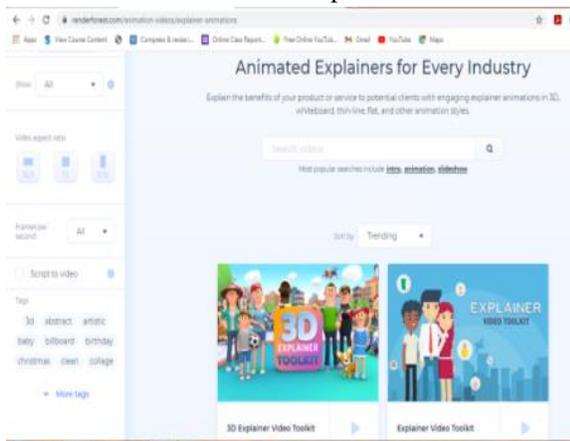
Flowchart-Draw.io



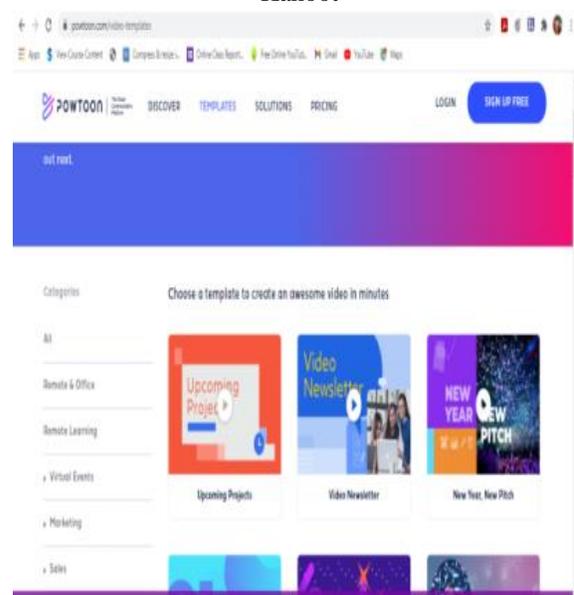
Mindmap



Kahoot



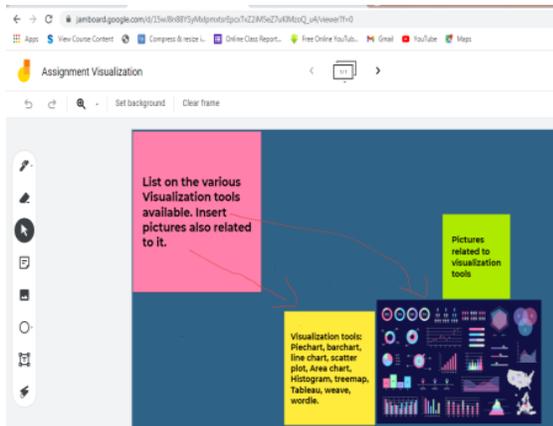
Renderforest



Powtoon

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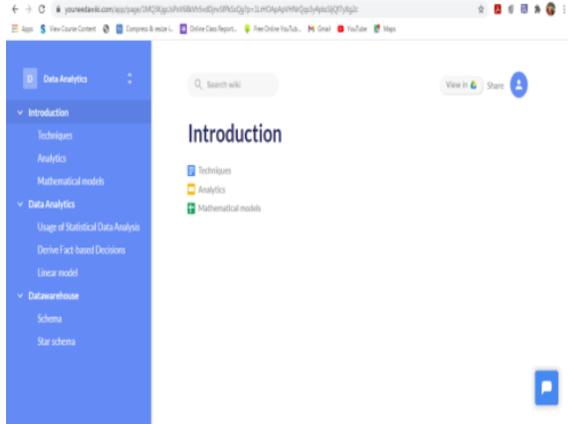
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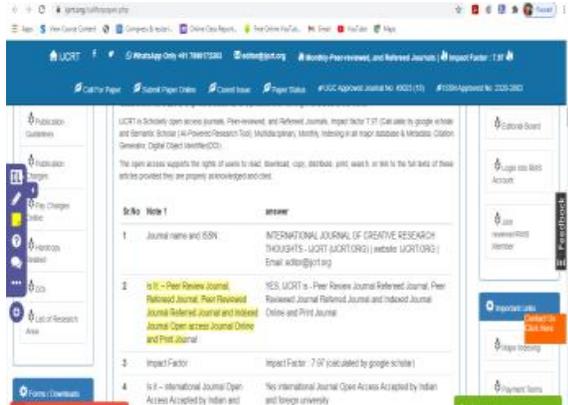
Jamboard



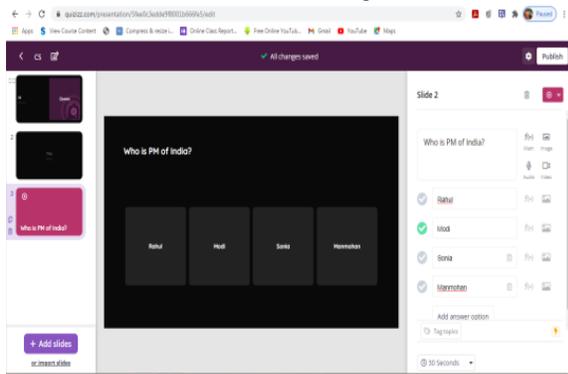
Peardeck



Youneedwiki



Insert Learning



Quizziz

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