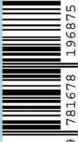
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SUSTAINABLE SOCIETY: A NEW BEGINNING

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CONTENTS

SL. NO.	TITLE	PAGE NO.
1.	A STUDY ON INCREASE RISK OF GESTATIONAL DIABETES	1
	DURING PREGNANCY WITH SPECIAL REFERENCE TO	
	BANGALORE URBAN KARNATAKA	
2.	IMPLICATIONS OF EDUCATION IN RURAL LIFE-	10
	A SOCIOLOGICAL VIEW	
3.	COMMUNITY ORGANIZATION METHOD IN RURAL	18
	DEVELOPMENT- A SOCIAL WORK INTROSPECTION	
4.	A SOCIOLOGICAL VIEW ON AADIYAN COMMUNITY IN	26
	TAMIL NADU	
5.	SKILL ACQUISITION AND ENVIRONMENTAL	37
	ENTREPRENEURSHIP FOR SELF EMPOWERMENT	
6.	TECHNOLOGY DEVELOPMENT AND INNOVATION	48
7.	TESTING AND ASSESSMENT: AN ESSENTIAL INGREDIENT	59
	FOR SUSTAINABLE DEVELOPMENT IN THE PEDAGOGICAL	
	PROCESS	
8.	EDUCATIONAL LAW AND POLICY IN INDIA: A CRITICAL	69
	ANALYSIS	
9.	BOTTLENECKS IN LEARNING: A MUNDANE AFFAIR IN	79
	CLASSROOMS AND STRATEGIES FOR OVERCOMING THE	
	LEARNING DISABILITY	
10.	ROLE OF TEACHERS IN PROMOTING QUALITY EDUCATION	86
	AND SUSTAINABLE DEVELOPMENT	
11.	SUSTAINABLE RURAL DEVELOPMENT: THE OPERATIONAL	97
	PRINCIPLES	
12.	TRADITIONAL AND INDIGENOUS SUSTAINABLE	108
	PRACTICES AND CHANGING EMPLOYMENT PATTERNS –	
	A RURAL INTERVENTION	
13.	PROMOTING ENTREPRENEURSHIP FOR ATAMNIRBHAR	119
	BHARAT: TOWARDS SUSTAINABLE EDUCATION	
14.	REVISITING INDIAN EDUCATION: TOWARDS SUSTAINABLE	130
	CURRICULUM FRAMEWORK	
15.	ANALYSIS OF COMPULSORY LAND ACQUISITION FROM THE	146
	PERSPECTIVE OF SUSTAINABLE DEVELOPMENT	
16.	WHERE DOES THE PRIVILEGE IN VEGANISM COME FROM?	158
17.	PRODUCTION AND PROPERTY EVALUATION OF WOOD	166
	POLYMER COMPOSITE MADE USING FORMALDEHYDE	
	BASED ADHESIVE AND SAWDUST	

18.	THE PSYCHOLOGICAL APPROACH OF RIGHTEOUSNESS	172
19.	IMPACT OF CLASSROOM MANAGEMENT ON	180
	UNDERGRADUATE STUDENTS' PERFORMANCE WITH	
	SPECIAL REFERENCE TO MANGALURU CITY	
20.	SUSTAINABLE DEVELOPMENT THROUGH PUBLIC SERVICE	195
	DELIVERY IN INDIA	
21	TESTING AND ASSESSMENT OF HIGHER EDUCATIONAL	206
	SYSTEMS FOR ENHANCING QUALITY PERFORMANCE	
22	DOCUMENTATION ON THE INVASIVE ALIEN AQUATIC	212
	PLANT SPECIES FROM THE FLOOD-AFFECTED AREAS OF	
	KARTHIKAPPALLY TALUK, ALAPPUZHA DISTRICT, KERALA	
23	USE OF ONLINE TEACHING LEARNING RESOURCES DURING	230
	COVID-19 PANDEMIC: AN OVERVIEW	
24	E-LEARNING AS AN EFFECTIVE SOLUTION TO	238
	SUSTAINABLE EDUCATION	

USE OF ONLINE TEACHING LEARNING RESOURCES DURING COVID-19 PANDEMIC: AN OVERVIEW

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ABSTRACT:

Educational Technology emerges as main component in the field of Education. Educational Technology includes various aspects like Information and Communication Technology (ICT), E-Learning, M-Learning, Blogs, Web based teaching learning, Synchronous and Asynchronous Virtual Classrooms etc. During COVID-19 Pandemic situation, teachers and technology played a very crucial role to maintain education system undisturbed. Teachers used online teaching learning resources for their teaching. They used Google meet, Zoom, Skype etc video conferencing apps for teaching and learning during this pandemic situation. They shared their teaching materials with different online/social networking platforms like Google Classrooms, Whats App etc. This chapter is focused on the use of online teaching learning resources during COVID-19 Pandemic situation by the teachers.

Keywords: Information and Communication Technology (ICT), Online Teaching Learning Resources, Video Conferencing Applications,

INTRODUCTION:

21st century is the century of knowledge and technology. Educational technology plays a vital role in teaching and learning from elementary education to higher education. Information and Communication Technology (ICT) has emerged as effective tool in Education. ICT and Online teaching learning resources are used by teachers for effective learning of students. Students can understand the new concepts of different subjects easily through ICT and Online teaching learning resources. Due to COVID-19 pandemic, teachers shifted their teaching learning process from face to face mode to online mode.

Use of Information and Communication Technology (ICT) in Education

Information and Communication Technology (ICT) plays a very important role in developing teaching learning process more effective. ICT enables teachers and students more interactive. ICT includes computer, internet, tablet, laptop, software, educational software, websites etc. Where as organizations focused on the mainstreaming of online learning, rather than the potential of online practices to deconstruct and re-invent educational practices. Progressively improve and enhance the online and blended learning offers, combining online and physical elements to create more engaging student experiences. Use blended learning to reduce the need for classroom space and change pedagogical practices. Incorporate lessons learned to enhance all face-to-face instruction with proven technology, resources and techniques (Norris and Lefrere, 2011). Advances in technology can be applied to all of these aspects. The content is no longer limited to books. Classroom instruction is no longer the only way of acquiring new information and mastering new skills. On the contrary, the networked content is more attractive to learners because it incorporates colorful visualizations, animated graphics, and interactive applications. The content that appeals to learners' needs and interests is accessible across the globe. Technology has made it possible to connect students with remote and virtual laboratories, and to involve them in 'mixed reality' environments. Software applications support the search for, organization, interaction and distribution of materials that make educational environments much richer. Wireless, mobile computing, not just laptop computers but also mobile phones are making learning more accessible and interaction more realistic (Sharkova, 2014).

Virtual classroom teaching has been found effective in teaching by using both the mode of synchronous virtual

classroom and asynchronous virtual classroom. Synchronous virtual classroom is the classroom where teachers and students are interacted live/online and Asynchronous virtual classroom is the classroom where students can get avail videos of teaching offline anytime and anywhere (Vaishnav & Kaware, 2016). Tomte et al. (2019) conducted study and found that what kind of ICT supported teaching and learning are used in programs? They studied ICT components like online teaching, use of videos in teaching, simulator training, laboratory training, use of social media, use of learning management system, development of virtual teaching in Universities and Colleges of Denmark and Norway. The most significant difference between the two countries emerges when the educational leaders report on types of technology or format for teaching: study program leaders in Denmark report significantly more use of online teaching and use of videos for teaching than their Norwegian colleagues.

Web 2.0 tools as educational blogs, podcasts and eportfolios allow learners to create a dynamic, reflective and multimedia record of their achievements. For example, educational blogs can encourage reflective discussions through reading the ideas of others and posting work for community comment and feedback (Sharkova, 2014). This study reveals the importance of face to face teaching with creative use of ICT, Online Teaching Learning and Blended Teaching Learning in higher education. Therefore, Learning the Technology, Managing the Technology and Integrating the Technology are very important in teaching learning process (Marron & Coulter, 2021).

Use of Online Teaching Learning Resources during COVID-19 Pandemic

Online teaching and learning resources are used for effective teaching learning process. These resources are (Oloyede et al., 2021);

Webcast

A webcast is basically a broadcast over the Internet that can either be delivered live or on-demand. It is a form of web conferencing which involves the integration of audio and video conferencing using the streaming technology to transmit a prerecorded event or live event over the Internet. Just like the traditional TV and radio broadcast, a webcast is usually deployed in a non-interactive linear setting, that is, its communication mode is one-to-many.

Webinar

A webinar is a short-form of a web-based seminar. In other words, it is an interactive seminar, presentation, meeting, workshop, lectures, and teaching that are transmitted online. A webinar is another category of web conferencing that has more sophisticated features such as file/document sharing, shared desktop, polling, chat, white boarding, and lots more. These advanced features make them especially useful for teaching and learning.

Ring Central Video (Ring Central Inc)

This is a tool that provides instant messaging, voice call, group conferencing and screen sharing with recording facility on a *RingCentral* platform. It can be used on a browser, desktop or on a mobile device. It was developed by *Ringcentral Inc*, and it can host up to 500 participants with high-quality experience anywhere, anytime on a computer or mobile device.

Go To Meeting (Log Me In)

It is a web-hosted real-time collaboration tool that markets itself as a user friendly and effective screen sharing tool. It is a software package that provides video conferencing, mobile conferencing, and recording facility between users. The screen of the host can be broadcasted to others. Like most of the other web conference tools, there are different packages with different offers. It can host up to 3000 participants for video conferencing with the enterprise package.

Zoom (Zoom Video Communication Inc.)

This is a tool that allows users to join meetings or webinars online using the zoom mobile app on Android and iOS, among others. It provides instant messaging, voice call, recording, screen sharing, video conferencing, keyboard and mouse sharing, active speaker and individual muting.

CISCO Webex (CISCO Company)

It is an enterprise solution video conferencing, audio conferencing, instant messaging, screen sharing and meeting recording tool. It markets itself as the leader in video and team collaboration. It is an American company formed in 2007 resulting from CISCO systems acquired Webex. It is a costeffective solution that can host up to 100 participants in the video conference at a cheap monthly price depending on the user's requirement. It also markets a pack for education and classes (Webex 2014). The platform is enabled through the CISCO Webex Cloud, and participants can attend from various kinds of devices.

Skype/ Skype for Business (Microsoft)

This is a communication tool that allows audio conferencing, video conferencing, instant messaging, screen sharing and meeting recording between Skype users on computers, tablets, mobile devices, Xbox one game console and smart watches over the Internet. It is completely free to use with other Skype users. It was acquired by Microsoft in 2011 and allows users to register and have a unique Skype ID for free.

Google Hangouts (Google)

Google Hangouts is communication software developed by Google for keeping in touch with one person or a group of people or friends. It is available on mobile or desktop and it provides instant messaging, audio conferencing, video conferencing, recording and screen sharing. It integrates VoIP, Google voice and IP telephony products. This platform is integrated into Gmail and Google+, and compatible with multiple computing devices. Chat history is saved online, thus allowing for synchronization when using multiple devices.

Google Meet (Google)

Google Meet is Google's premium video conferencing software offered as part of the G-suite. It was originally paid only

but recently offered free to use as a result of the challenges of COVID-19. It allows users to turn on and off their microphone and camera, share screen and see other participants. It allows for HD calls but does not allow additional effects like status messages or emojis like hangout. Google Meet allows for users to easily join meetings on computers or on mobile devices.

There are other online resources which are used like Pexip (Pexip Holding Asa), Team Viewer (Team Viewer GmbH), Eztalkss (ezTalks Technology Company Limited), Apache OpenMeeetings (Apache Software Foundation), Join.me (LogMeIn Inc.), GOOGLE CLASSROOM (Google), Adobe Connect (Adobe Inc.), LoopUp (LoopUp Group PLC), Vidyo (Vidyo Inc.), StarLeaf (StarLeaf Limited), POLYCOM (Polycom Inc.), LIFE SIZE (Serenova, LLC), BlueJeans (Verizon Communications), OMNIJOIN (Brother Industries), Interprefy etc. There are some Government of India initiatives like SWAYAM, SWAYAMPRABHA, DIKSHA etc. are used as online teaching learning resources. MOOCs are also contributing as online platform for acquiring knowledge and skills of different fields.

Many teachers used above mentioned online teaching resources during COVID-19 pandemic. Where as the role of family and friends was encouraging during pandemic. The study highlights the importance of family and friendship interactions in non- traditional student support networks, encouraging to question the dominant deficit views of non-traditional students that often portray their family background as lacking essential qualities for successful university study. While it is important to recognize the resourcefulness of "non-traditional families", particularly for student wellbeing, the findings still draw attention to the lack of systemic institutional support in student networks and the effects it may have on some disadvantaged students. From sample of student interviews, they have seen that there was a limited presence of university support actors in their networks, e.g. formal support services, academics and colleges. The latter is particularly important for collegiate systems like Durham University, where colleges are hubs for social activity and pastoral care. As the sample has limitations, they recommend further research exploring "non-traditional" student networks, that draws from wider universities both within and beyond the college/elite system (Raaper et al., 2021). COVID-19 pandemic, pre-school educators in Hong Kong were required to teach with digital technologies. 1035 educators from 169 preschools reported their views and practices in an online survey. More than half of respondents (53%) expected future online teaching to continue, and only 11% of educators believed that parents would reject this form of delivery (Hu, Xinyun at el, 2021). Therefore online teaching and learning is the part of education system during and may be after COVID-19 pandemic situation.

CONCLUSION:

In this technology era, we have many options of technologies for effective teaching and learning. But Teachers are not so familiar to adopt the technology and use in their teaching. Teachers require technological support from the administration very frequently. Therefore we can understand the importance of learning the technology, managing the technology and integration of technology for effective teaching learning process. In this COVID-19 pandemic, teachers are surprisingly shifted from traditional way of teaching to online way of teaching. Various online platforms helped them to integrate this technology. Teachers are using online teaching learning resources which are mentioned earlier very frequently and efficiently. Simultaneously students are also using these online teaching learning resources properly for submitting their feedbacks, questions, messaging, assignments etc. Online teaching and learning resources are used by teachers with technical support.

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