



1 INTRODUCTION

1.1 Overview

Online classes and technology have emerged as a superhero during the lockdown days. We have all been under house arrest but are still connected with the world of education. Due to the lockdown, students have not been able to stay connected with the outer world and the lack of exposure is evident. The only reprieve for the students' mental well-being has been the transition to online classes. Teachers made sure that the learning for students was not compromised, so they took a great leap forward to find solutions and create new learning environments for their students to ensure that learning never stops. With the rapid advancements in technology and the widespread availability of internet access, online education has gained significant popularity in recent years.

Purpose

This project aims to delve deep into the various aspects of online education, examining its strengths, weaknesses, opportunities, and challenges. The outcomes of this project will provide valuable insights for educational institutions, policymakers, and online learning platforms to enhance the effectiveness and accessibility of online education. This analysis of the online education system aims to contribute to the ongoing dialogue on the future of education and help shape a more inclusive, engaging, and effective learning environment in the digital age.

2 LITERATURE SURVEY

2.1 Existing problem Existing approaches or method to solve this problem

Virtual Classroom always gives the flexibility to cope up with several constraints like time and cost but challenging aspects to engage the students because of various challenges like IT infrastructure, interest and social media distractions etc.

One of the most researched and most relevant aspects of the online education experience are efforts to increase student motivation in their educational process, through autonomy in learning, through the effective use of digital tools, and through an active and interactive relationship between and amongst students and teachers. Guri-Rosenblit and Gros (2011) highlight the potential horizontal nature of this pedagogical relationship, giving relevance to the support that the student receives from the teaching staff and the institution as a whole. At the same time, Pallof & Pratt (2013), Kocdar et al., (2018) and Pilkington (2018) highlight the importance of helping students achieve autonomy and self-regulation so as, to motivate and thus enrich their educational experience.

**2.2 Proposed solution What is the method or solution suggested by you?**

The proposed solution will be providing the required infrastructure and parents must monitor their kids to avoid the distraction of social media. Virtual classrooms going to be part of every students hence emphasizing on the flaws may leads to effective learning.

Anderson (2016) and Vuopala et al (2016) maintain that the learning process with digital tools is or at least can be, fundamentally collaborative. Students create knowledge through interaction between themselves, the teacher, and their environment, which allows and indeed forces them to assume the leading role in their learning process. The demographic characteristics of the student body engaged in online learning are heterogeneous. Jung (2011) and Murphy and Stewart (2017) noted that the majority of the first wave of online education students made contact with the computer and with digital technologies in late youth or adult life (late twentieth century and early twenty-first century). That is, these students came from a campus-based educational environment where the teacher was the leader of the process, who set the timetable and dictated how knowledge would be acquired.

Virtual students are made up of a great variety of ages, the majority coming from a regulated formation focused on the transmission of knowledge made by the teacher, but who are more prone to proactivity (Murphy & Stewart, 2017). Thus, they are more accustomed to collaboration between equals, to be more democratic, more diverse and to be involved in less hierarchical telematic relationships. Although there are differences and varying needs among online students according to their culture, the disciplines they choose to study, and their age, they show many common characteristics in their identity and performance when learning in these environments (Kocdar et al., 2018; McKnight et al., 2016). Perhaps the most striking commonality, although not surprising, is that the majority enroll for the first time in online education, without knowing what it is to be an online student, without knowing what to do, what it entails, how to perform optimally and without having received any training (Jung, 2011; Pilkington, 2018). Despite this, most are able to adapt and learn due to the flexible context, transference of digital skills from social and professional contexts, having the individual responsibility for their time and the ability to access educational resources until the completion of their course (Pilkington, 2018).



3 EXPERIMENTAL INVESTIGATIONS

I used the IBM Cognos data analytics tool to analyze the variables in the provided project. Understanding and cleaning the data is a crucial aspect of analysis. Hence I followed the following steps in analyzing the results

- Uploading the data set to Cognos
- Exploring the data and visualizing the facts using the appropriate charts like bar, pie, heatmap etc
- After pin the charts I connected to the story to arrange the results in a meaningful manner
- IN last created the reports using the charts that were already created and pinned in the visualization. The report typically highlights the important information in a visual manner

4 RESULT

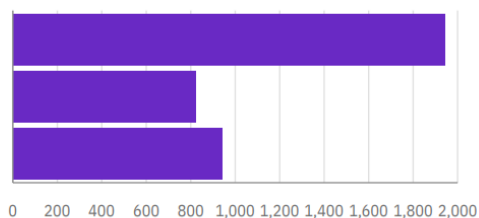
Final findings (Output) of the project along with screenshots.

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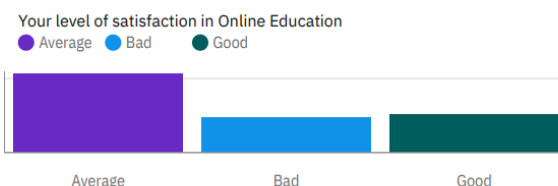
* online dashboard

Tab 1

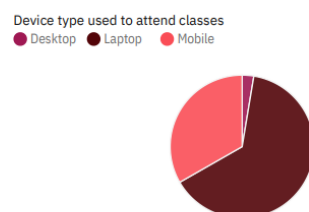
Internet facility in your locality by Your level of satisfaction in Online Education



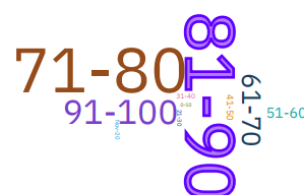
Age(Years) by Your level of satisfaction in Online Education colored by Your level of satisfaction in Online Education



Time spent on social media (Hours) by Device type used to attend classes



Average marks scored before pandemic in traditional classroom

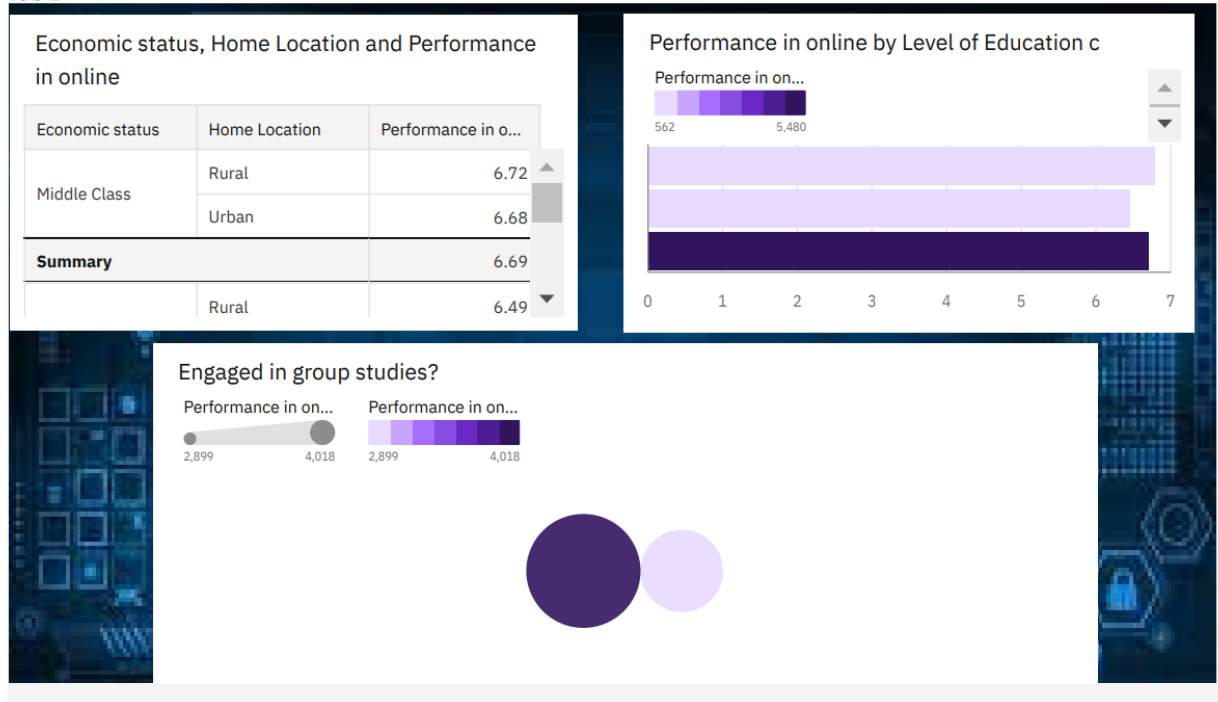




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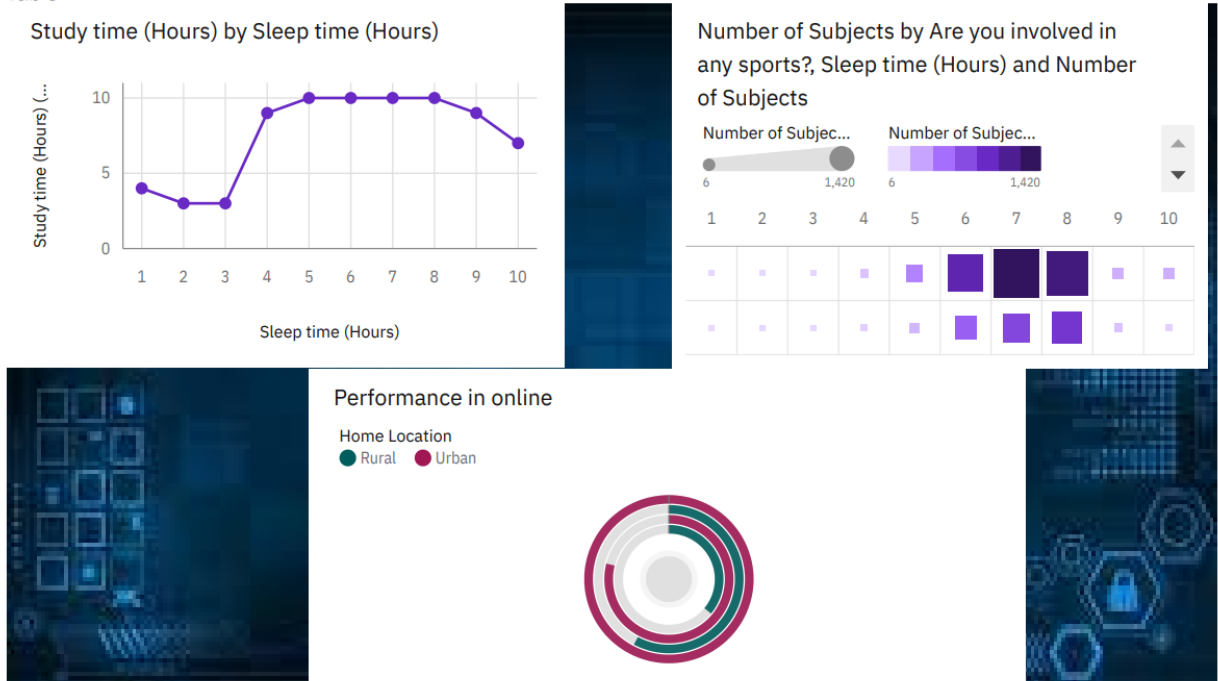
Tab 2



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* online dashboard

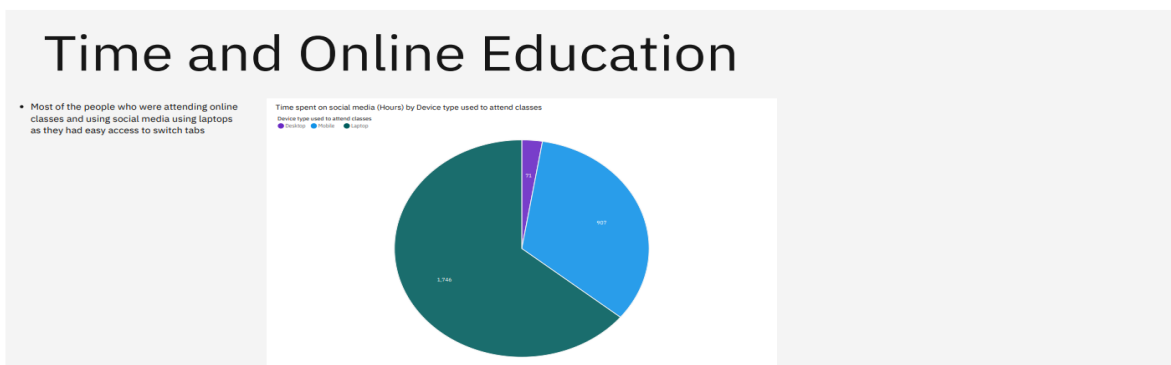
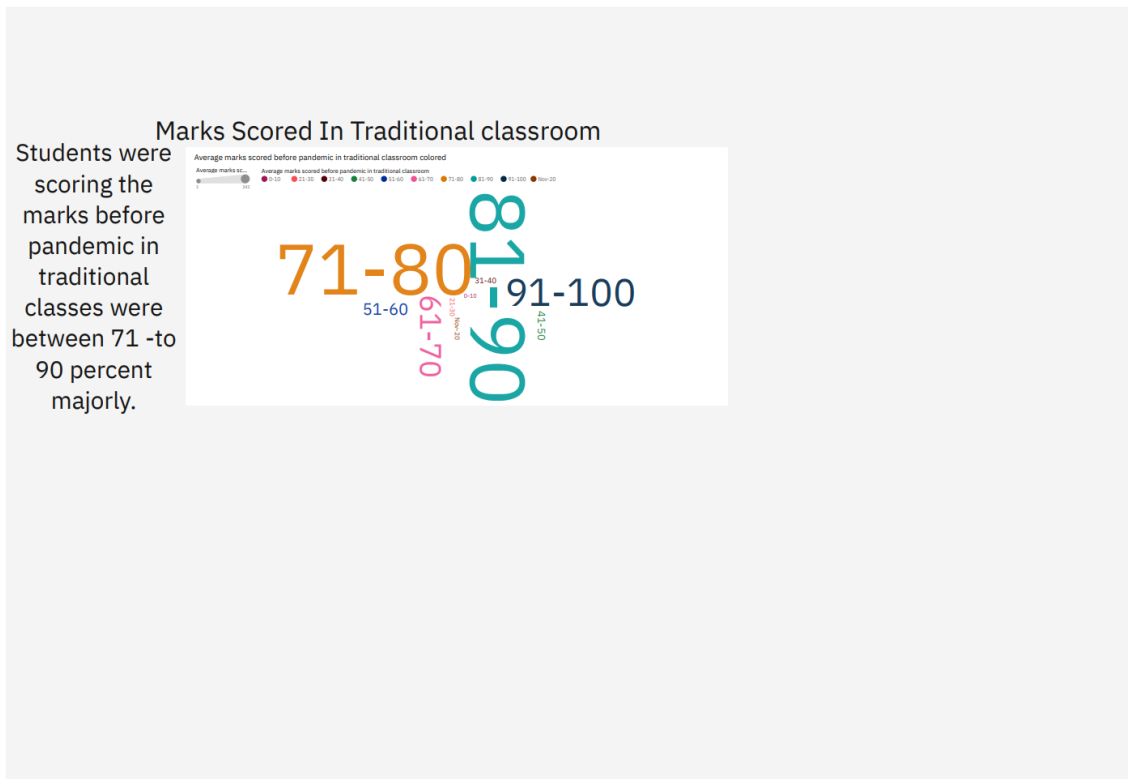
Tab 3





5 ADVANTAGES & DISADVANTAGES

List of advantages and disadvantages of the proposed solution



Advantages:

- The virtual classroom will be beneficial as it gives the flexibility to learn even in the difficulty of presenting in the learning place
- Its cost-effective
- Make students to choose to connect with faculty easily

Disadvantages:

- Student engagement is always challenging as they will get distracted easily,some



body should monitor them.

- The instructor should identify the motivational elements to make them attentive

6 APPLICATIONS

The areas where this solution can be applied



Applications

- Faculty can understand the ways, how students face difficulties and may be ready with alternative methodologies to make online learning effective,
- Major concerning factors like high workload or other things can be handled effectively



7 CONCLUSION

Online classes give the opportunity to students to learn in different difficult situations in the remote environment. It also got the challenge of diverting the attention from the learning, Hence there must be an effective mechanism to motivate the students to get engaged

8 FUTURE SCOPE

EdTech companies can further work on the major concern areas like the internet, student interest, and performance to design their programs .

9 BIBILOGRAPHY

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