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**CRITICAL REVIEW**

**DS7002 – COURSE WORK**

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**APPLICATION AREA:** Education.

**TOPIC:** The Impact of Education during COVID – 19 Pandemic.

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**THE IMPACT OF EDUCATION DURING COVID – 19 PANDEMIC.**

**ABSTRACT:**

The COVID - 19 outbreak has had an impact on many aspects of our daily lives. Especially in the sector of education, where students are required to participate in online education (distance learning), which keeps them away from interactive courses. Students lack practical experience and knowledge as a result of online learning, making it difficult for them to achieve their goals. This study focused on the difficulties that students and teachers experience when it comes to Distance Education. Geographic Information Systems (GIS), Web-enabled GIS with Spatial analytical tools, mapping and web-mapping applications, and virtualization techniques are some of the tools used in Spatial Data Analysis to tackle the difficulties in the education sector. Geographic Information System (GIS) is the most efficient of these spatial analytical tools for obtaining academic discipline results in the respective sector. Despite the fact that COVID - 19 provides a wealth of opportunities for relevant lessons on the significance of remote mapping and analytical tools, it leads students to think limited and remotely. Additionally, educators should regularly adjust to practices in the educational system, which may result in "pedagogic agility" (defined as a distance in education or a less participatory class) in both students and educators (teachers). Since rising public awareness and use of interactive maps and dashboards sparked interest in spatial thinking as a result of GIS technology being newly incorporated into numerous academic fields and it is also expanding their collaboration with colleagues. Overall, this study uses principles from spatial geography to investigate how online learning has evolved and the effects of Distance Learning using a Geographic information System (GIS) Spatial tool.

**FINDINGS:**

Based on the findings, the authors argued that impacts in online instruction is dependent upon 1) course content, lack of interaction between the instructor and learners; 2) creation of a sense of online learning community. In doing this, it is hoped that this will stimulate an on-going discussion of effective strategies that can enhance universities and faculty success in transitioning to teach online using the spatial tool Geographic Information System (GIS).

**LITERATURE REVIEW:**

During the initial review the elements of online education emerge during our initial assessment of the literature. The organized themes using Garrison and colleagues' theoretical framework, which stresses social presence, instructional presence, and cognitive presence in online teaching and learning (Garrison, Anderson, & Archer, 2000). To answer the research questions, it is arranged the findings into three primary themes: the history of online education, impacts of online teaching, and impacts of online learning. The data was analyzed using the qualitative content analysis approach (Cavanagh, 1997).

The meaning of online education has changed over time as the technology has advanced. McIsaac and Gunawardena (1996) defined distance education as "no more than a hodgepodge of ideas and practices taken from traditional classroom settings and imposed on learners who just happen to be separated physically from an instructor" when referring to the aspects of the transition from face-to-face to online classrooms . Moore and Kearsley (2012) described distant education as "teaching and planned learning in which teaching generally happens in a different place from learning, requiring communication through technologies as well as unique institutional organization" in terms of technology and organization. Finch and Jacobs (2012) defined being remote as "all modes of teaching and learning where the student and instructor are geographically and temporally separated". Although there is an obvious need to conceptualize distance education in the context of fast changing technology and exponentially rising online education, its many facets make it difficult to agree on a single definition and what defines distance education in practice.

"Distance education," "eLearning," "online learning," "blended learning," "computer-based learning," "web-based learning," "virtual learning," "tele-education," "cyber learning," "Internet-based learning," "distributed learning," and other terms have been used in the research literature to describe online education. All of these phrases were regarded sufficiently synonymous in this investigation, and they were used interchangeably throughout this text.

**ADVANTAGES OF ONLINE EDUCATION:**

"Why do we need distance education?". Moore and Kearsley (2012) discovered the following causes in their study:

• provide chances for upgrading worker skills

• improve the cost effectiveness of educational resources

• improve the quality of current educational structures as a matter of equity

• promote access to learning and training as a matter of equity

• deliver educational campaigns to specific target audiences

• provide emergency training for key target areas

• expand educational capacity in new subject areas

• offer a combination of education and work and family life

• add an international dimension to the educational experience

• balance inequalities between age groups

Finch and Jacobs (2012) listed the following benefits of online education using spatial data analysis when discussing best practices: reduced travel time and costs; increased opportunities to access and collaborate with expert professionals on a global scale; providing students with the flexibility to access courses at their leisure; and allowing adjustments to subjects and content needs.

**IMPACTS OF ONLINE EDUCATION:**

Despite all of the demands for higher education to be improved and costs to be reduced, the focus has been elsewhere. They believe there are two reasons for this increase:

1) scarcity of excellent jobs during the downturn, more people sought education;

2) because of workplace competitiveness, employed people sought education to develop and progress themselves.

3) Loss of enthusiasm

4) Internet access for students living in provincial and rural locations. Students lose enthusiasm to participate in online learning after spending a long period there, and they also become fatigued and have sleeping problems.

5) Online resources are readily available; some courses are delivered in PowerPoint or pdf format, other speakers just read from PowerPoint slides.

6) Less engaging owing to the lack of interaction between students, lecturers, and animals, which makes it tedious and easy to lose focus.

7) There is a dearth of effective communication.

8) Some pupils experience feelings of isolation.

**SUGGESTIONS TO IMPROVE ONLINE LEARNING:**

Mohamed A. A. Mahdy (2020) listed the recommendations to improve online learning as follows:

1. Universities should provide online learning systems with simple access to study materials.
2. Provide pupils with internet-accessible technological devices such as PCs and tablets.
3. During the pandemic, improve internet speed and provide cheaper or even free internet subscriptions.
4. Provide lecturers with e-learning and computer skills training.
5. Improve teaching methods to motivate students to learn and to entice them to study online.
6. Provide virtual resources to simulate laboratory work, as well as live streaming from the lab.
7. Increase the amount of time students and teachers spend together (for example with Mentimeter application).
8. Practical learning through interactive technologies such as videos and 3D animation is significantly more successful than text materials such as power point and pdf; hence, voice recordings should be offered with the lecture's text.
9. For practical teaching, make available online materials such as e-books and instructive videos.
10. Reducing the quantity of homework assigned to pupils may help them feel less stressed.
11. After each course, provide students online quizzes and activities to assess their learning.
12. Increase the amount of time you have to complete the online examinations.

**DISCUSSIONS:**

The availability of internet in provincial and rural areas, the speed and cost of internet, the availability of electronic devices to access the internet, and the lack of interaction between students and lecturers were among the most prominent issues related with online education in general. Specific issues with online education included a lack of clinical application, a lack of online information on some courses, the difficulty of presenting practical lessons online, and a lack of touch with instructors.

To improve online education in general, it is recommended that platforms for online learning be provided, that students be provided with electronic devices to access the internet, that internet speed be improved, that cheaper or even free internet packages be provided during the pandemic, that lecturers be provided with professional training, and that student-teacher interaction be improved. Additionally, it is recommended that virtual resources be provided  that practical lessons be taught using interactive tools such as videos and 3D animation, and that accessible e-books and instructional videos be provided for practical lessons to improve online education.

**CONCLUSION:**

The current study found that COVID-19 pandemic lockdown had various degrees of impact on most participants' academic performance. Students can stay on track with online education since it allows them to study at their own pace. The biggest problem in online education, however, is how to deliver practical instruction. Because most of the subjects are practical, learning them online is difficult. Students believe that completing competencies only through online education is difficult. Making online education more interactive, presenting practical methods in real-life circumstances, delivering clear information, and providing 3D virtual tools to imitate the real situation are all things that may be done to improve it.

# Bibliography

Mahdy, M. A. (2020). The Impact of COVID-19 Pandemic on the Academic Performance of Students. *Education*, 8.

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