

NOMBRE:

Nº LEGAJO:

FECHA:

RESPONDA EN ESPAÑOL

OBSERVE LA ORTOGRAFIA

Para aprobar este examen usted deberá responder en forma correcta a más del 50% en cada parte.

Título del texto: The disconnected: COVID-19 and disparities in access to broadband for higher education students.

**Parte A**

- 1-Exponga brevemente cuál fue el propósito de los autores al escribir este trabajo.
- 2-¿Qué cambios produjo la pandemia del COVID-19 en el proceso de enseñanza-aprendizaje en la educación superior?
- 3-Explique brevemente el concepto que los autores resaltan en la sección intitulada "Conclusión".
- 4-Indique cuáles son las consideraciones presentadas en la última sección del texto.

Parte B

- 1-Explique el funcionamiento de la palabra THIS como pronombre en el Abstract.
- 2-Desarrolle las ideas que se expresan mediante el conector **although** (línea 11) en la sección de la Introducción.
- 3- Identifique 3 estrategias cohesivas en el texto. Describa su funcionamiento en detalle.
- 4-¿Qué sabe usted acerca de la interpretación de las palabras terminadas con el sufijo -ing en un texto en inglés? Elija tres (3) ejemplos del artículo, tradúzcalos al español e indique a qué categoría de palabra refieren. Anote línea y nº de párrafo que las contiene.
- 5-¿Cómo funciona la **despersonalización** en inglés? Encuentre un ejemplo en este texto y explique por qué cree fue utilizado este recurso en este contexto.

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The disconnected: COVID-19 and disparities in access to quality broadband for higher education students

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Abstract

The COVID-19 pandemic forced many higher education institutions (HEIs) across the world to cancel face-to-face teaching, close campus facilities, and displace staff and students to work and learn from home. Given the persistent nature of the pandemic, many HEIs have continued to deliver courses online and/or use a blended learning approach. However, there are concerns around differences in student access to digital learning resources while at home, including high quality broadband connectivity. This is important, since variation in connectivity may impact the type of online/blended model that faculty can deliver or constrain student engagement with online content. In this context, this paper combines national data on the domiciles of students enrolled in Irish HEIs with detailed spatial data on broadband coverage to estimate the number of higher education students 'at risk' of poor access to high quality internet connectivity. Overall it finds that one-in-six students come from areas with poor broadband coverage, with large disparities by geography and by HEI. It also finds that students from the poorest broadband coverage areas are more likely to be socioeconomically disadvantaged. As a result, this paper recommends that HEIs use their detailed registration data to help identify and support at-risk students. In particular, the results suggest that some HEIs may need to prioritise access to campus facilities and services to less well-off students living in poor broadband coverage areas.

Introduction

In early 2020, the COVID-19 pandemic forced many higher education institutions (HEIs) across the world to cancel face-to-face teaching, close campus facilities, and displace staff and students to work and learn from home. For example, the European University Association (EUA) estimated that 90% of HEIs in Europe 'went online' at this time, for all or most of their classes (Gaebel, [2020](#)). Given the persistent nature of the pandemic, and the potential threat of further waves of the virus, many HEIs decided to continue to deliver courses online and/or use a blended learning approach. Evidence from the United States (US) suggests that the majority of colleges have adopted this approach (Staff, [2020](#)), while a similar situation exists in numerous other countries, including the United Kingdom (UK),

Australia, and Ireland (Bothwell, [2020](#)). Although these modes of delivery have existed within the higher education sector for a number of years, the scale of such change is unprecedented and raises a number of important issues.

Conclusion

The issues raised in this study are not unique to Ireland, with problems relating to digital divides prevalent in the majority of developed and developing countries. This study points to potential connectivity issues for different groups of students in different HEIs. This may be an issue to varying degrees across different countries but is clearly worth examining since it highlights the need for HEIs to consider the geographic distribution of their students in designing appropriate policy and supports if moving towards mass online/blended delivery methods in response to COVID-19-related restrictions.

Limitations and future research directions

In terms of the analysis, a number of caveats should be borne in mind. First, in using the NBP intervention area mapping data, it is possible that some students in at-risk EDs have basic DSL or mobile broadband connections with download speeds that provide adequate support for most online learning applications. Nevertheless, survey data published by Commission for Communications Regulation ([2020a](#), [2020b](#)) highlights that consumers with DSL or mobile broadband connections, as well as those in rural areas, had the lowest satisfaction rates in relation to the adequacy of their connection since the pandemic commenced. Second, data on in-home capacity issues such as WiFi quality or the number of people sharing home networks was not available. Such issues can impact the download speeds available within the home regardless of whether a household has access to a high-speed broadband technology or not. Third, it should be noted that there are some temporal differences across the four main data sources used in this paper. However, it is unlikely that the spatial distributions of the measures considered (i.e. higher education student domiciles, broadband availability, residential addresses, and census-based variables) will have changed considerably since the timing of their respective data. In addition, the underlying data is unlikely to have been directly affected by the pandemic. Finally, this paper has not considered whether some courses might require more bandwidth or lower latency broadband services than others, depending on the online learning applications being utilised. This is because course-level domicile data was not available.

