

DIGITAL TECHNOLOGIES FOR eLEARNING DURING 'LOCKDOWN': A COMPARATIVE STUDY OF STUDENT PERSPECTIVES

**14th Annual International Conference of Education, Research
and Innovation**
8th - 9th of November, 2021



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Swansea University
Prifysgol Abertawe



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WESTERN CAPE

Presenters



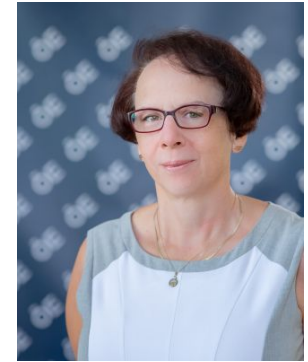
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Universities



Swansea University,
Wales



The University of the Western Cape,
South Africa



Óbuda University,
Hungary

INTRODUCTION

The COVID-19 pandemic brought disruption to the way we live, work, and socialise and has had a profound impact on traditional universities' ability to deliver on their teaching mandate.

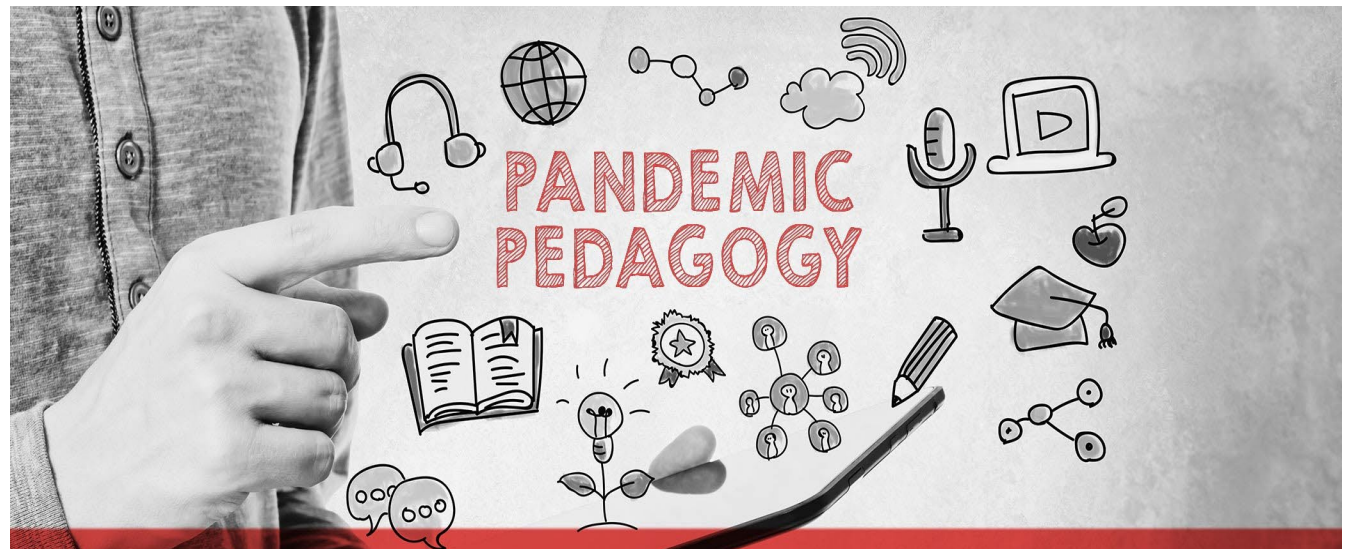
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METHODS

RESULTS

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Source [1]

INTRODUCTION

The different countries' responses to the pandemic were quite unique, based on their specific circumstances at the time, influencing each country's approach to the continuation of education

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Source [2]

INTRODUCTION

Due to the COVID-19 pandemic, higher education institutions, globally, had to transform their approach to the delivery of their educational programmes.

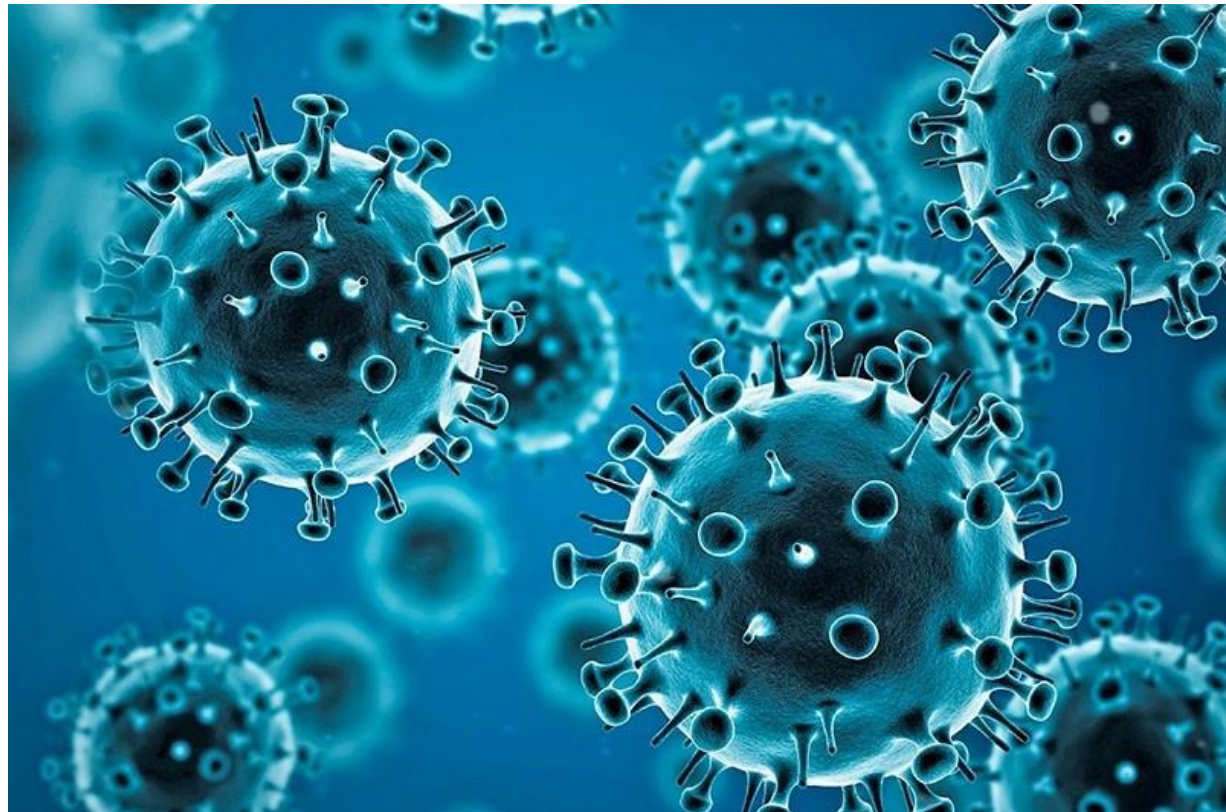
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Source [3]

Dr Desireé Cranfield (Swansea University, UK)

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The changed circumstance had an:

- Impact on the student learning experience
- Satisfaction of the higher education experience

Traditional modes of teaching delivery were not possible, and virtual and online modalities were the only options available to continue the teaching and learning agenda

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To measure country specific positions on information communications technology use, capacity, and readiness—organisations developed several frameworks or indices.

In the next section two of these will be considered in terms of the three countries that participated in this study.

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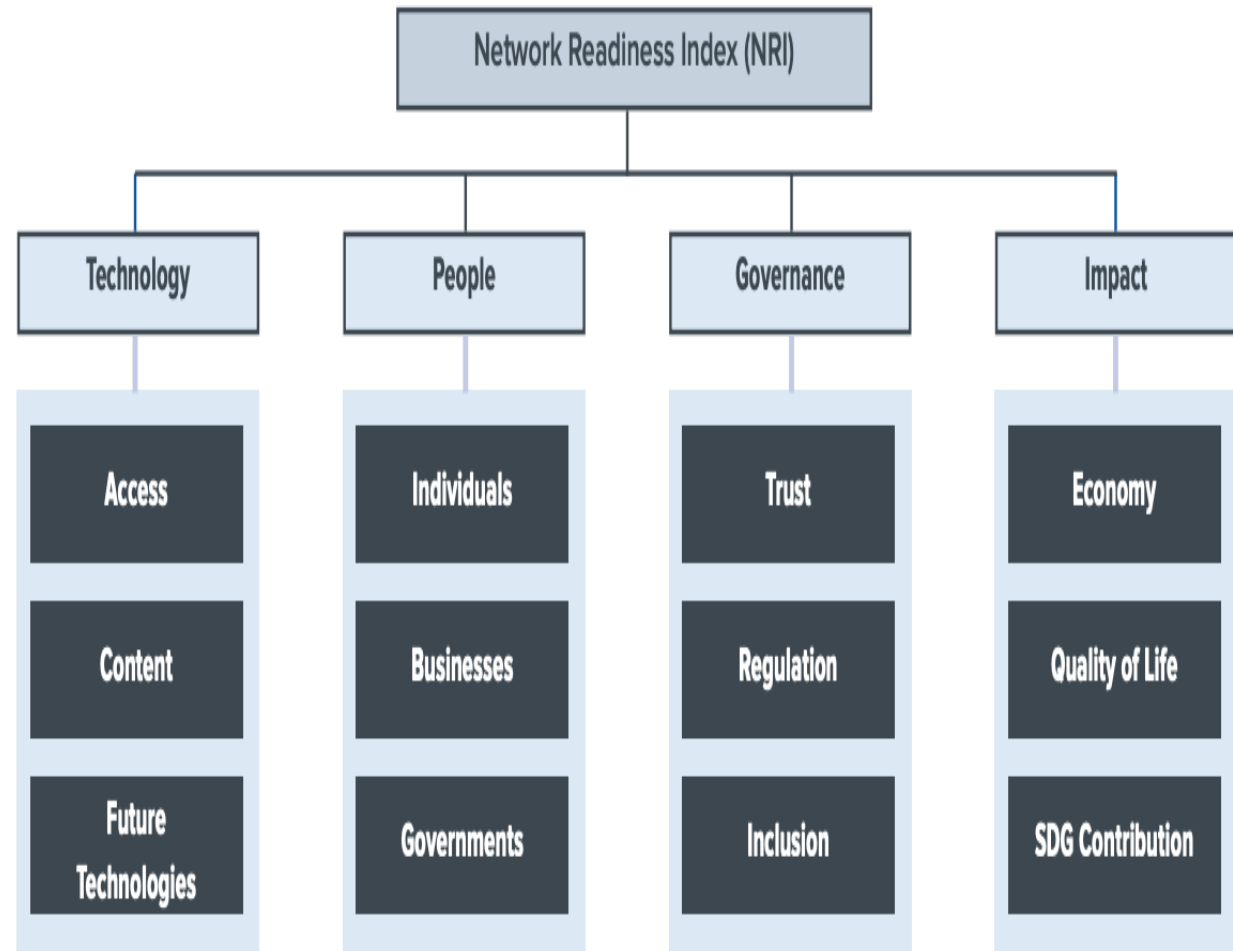
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Source [4]

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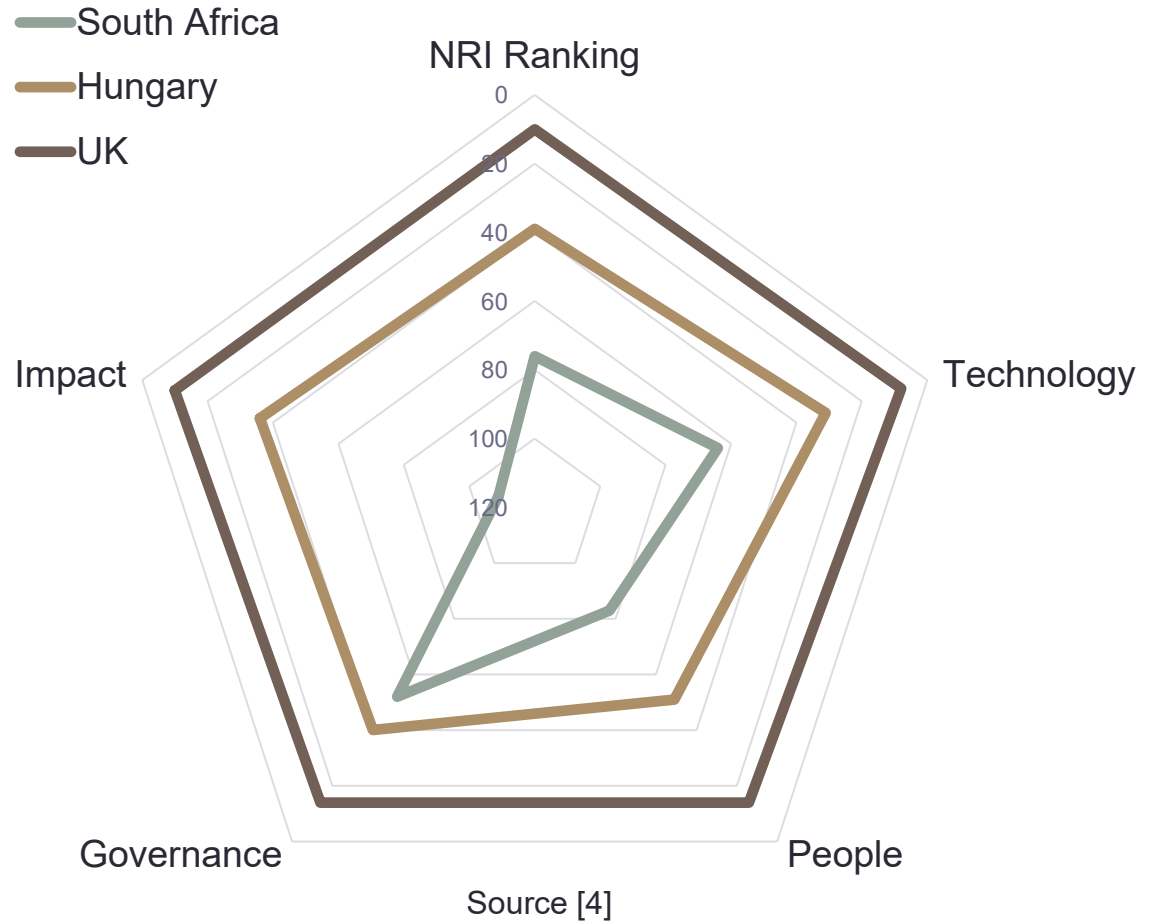
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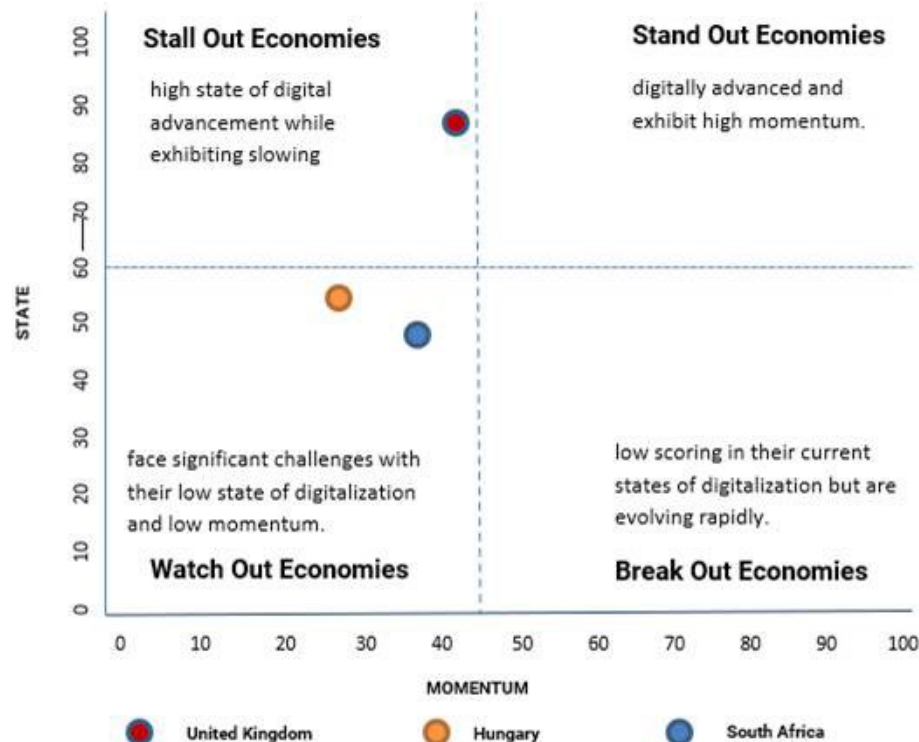
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Digital Intelligence Index



	State score	Momentum score
United Kingdom (Stall out)	81.48	44.81
South Africa (Watch Out)	50.79	42.52
Hungary (Watch Out)	57.74	30.64

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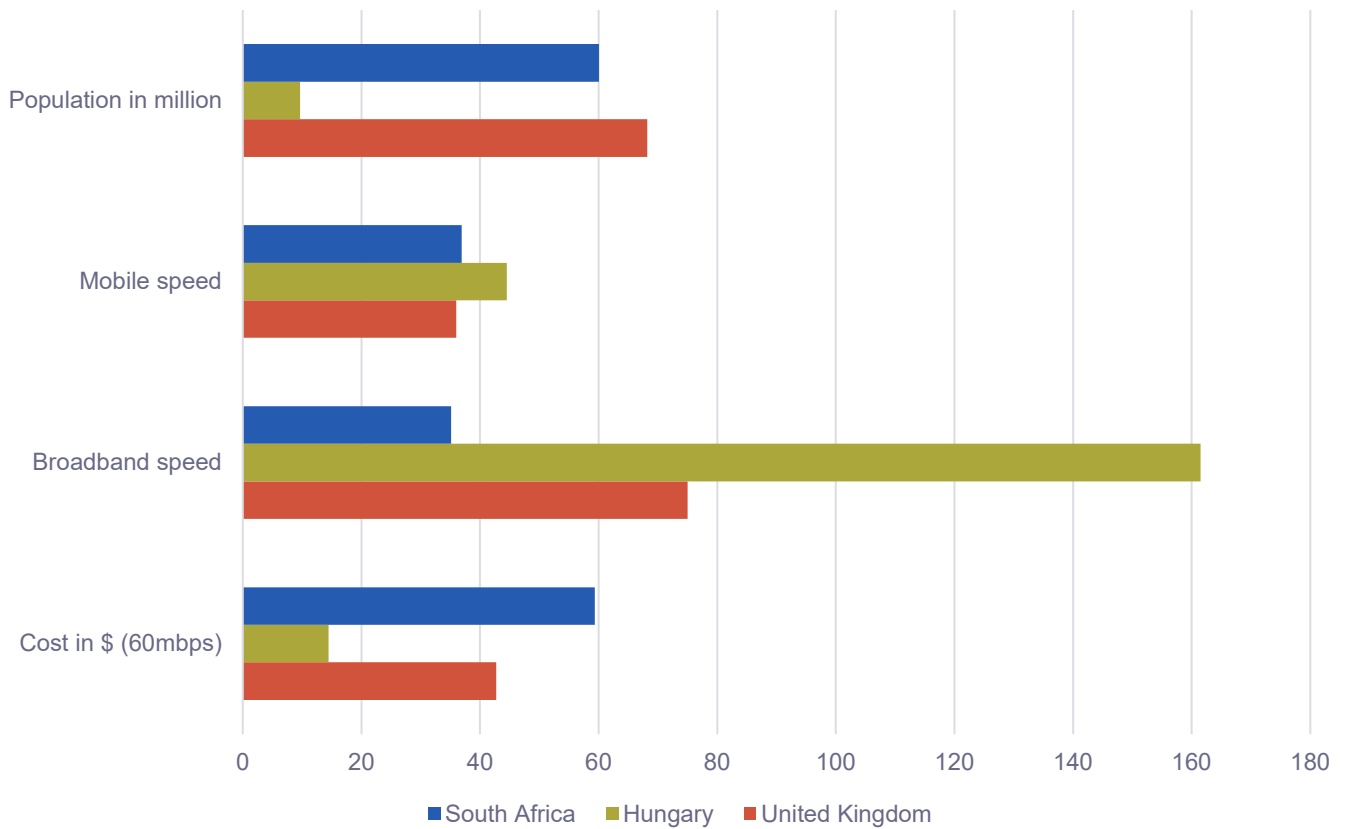
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Internet speed & cost by country 2021



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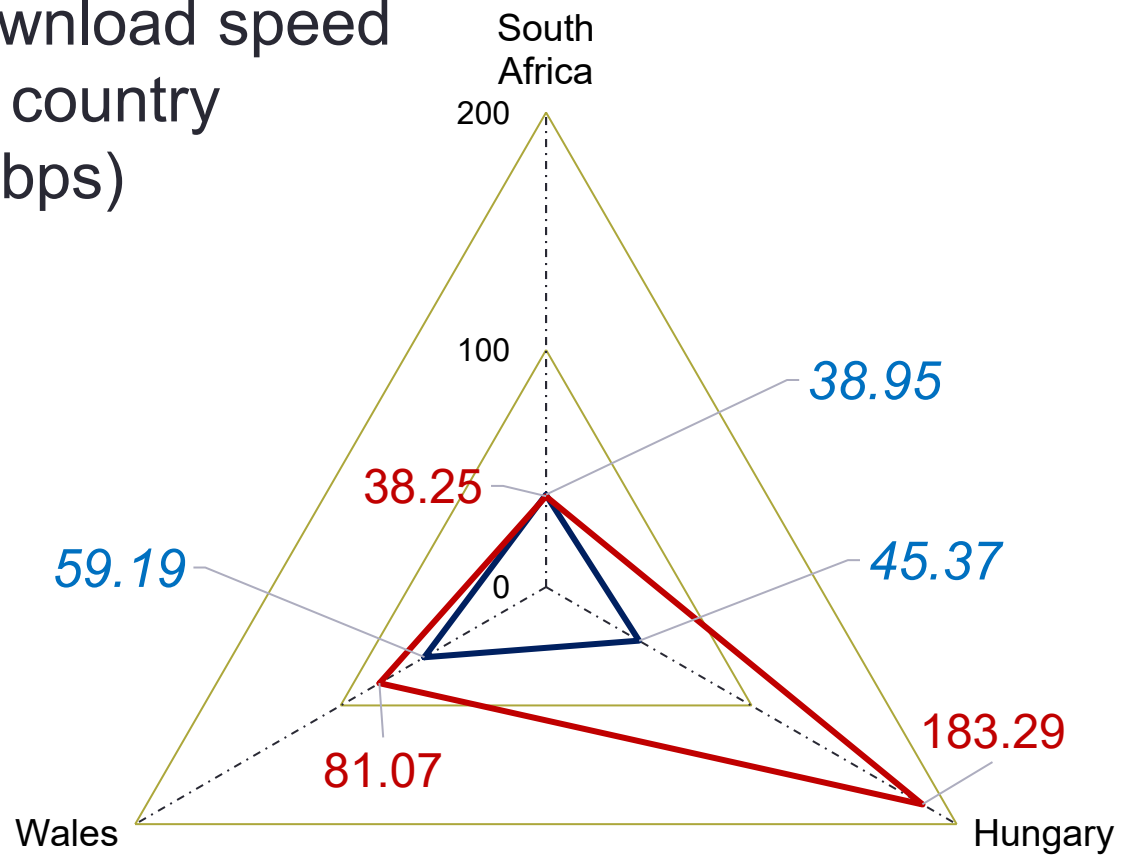
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Average download speed by country (mbps)



- average download speed for mobile MBPS
- average download speed for fixed internet connections

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DEMOGRAPHICS
Country of study
Age
Gender
Academic Study

ACCESS TO DIGITAL LEARNING MANAGEMENT ENVIRONMENT
System Access
Ease of use of emergency eLearning technologies
Preference of digital technologies

IMPACT OF COVID-19 ON HIGHER EDUCATION STUDENT PERCEPTIONS OF ONLINE LEARNING

STUDENT ONLINE LEARNING PRACTICES
Home eLearning Environment
Participation and engagement
Concentration
Independent Digital Learning

AWARENESS AND PERCEPTION OF CYBERSECURITY AND CYBERSAFETY
Dimension of awareness of cybersecurity issues
Dimension of behaviour change

DIGITAL TECHNOLOGIES
Digital technologies used
Preference of digital technologies

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ACCESS TO DIGITAL LEARNING MANAGEMENT ENVIRONMENT
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DIGITAL TECHNOLOGIES
Digital technologies used
Preference of digital technologies

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To determine

- the online challenges and experiences of higher education students during COVID-19
- how access to digital technologies impacts the student online learning experience.

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The following questions were posed:

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1. [**Digital Access**] What access did students have to their online digital learning environment?
2. [**Attitudes**] What was the attitude of students towards their digital learning environment and systems
3. [**Behaviours**] What digital technologies were mostly used, and which were preferred by students to engage with the emergency eLearning during the pandemic?

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Data were collected from:



Source [6]

Óbuda
University,
Hungary



Source [7]

Swansea
University,
Wales



Source [8]

The University of the
Western Cape,
South Africa

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- Qualtrics was used to administer a pre-designed questionnaire of 65 open-ended and closed questions
- It addressed issues around access to the digital environment and students preference of features of digital technologies
- Ethical clearance was obtained for the study



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- Data were collected in Oct and Nov 2020

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- Analyses revealed the digital technologies used for eLearning by students during lockdown

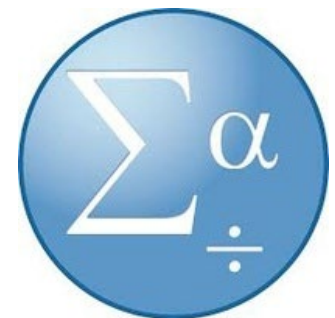
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- Both SAS and SPSS were used to support the analysis

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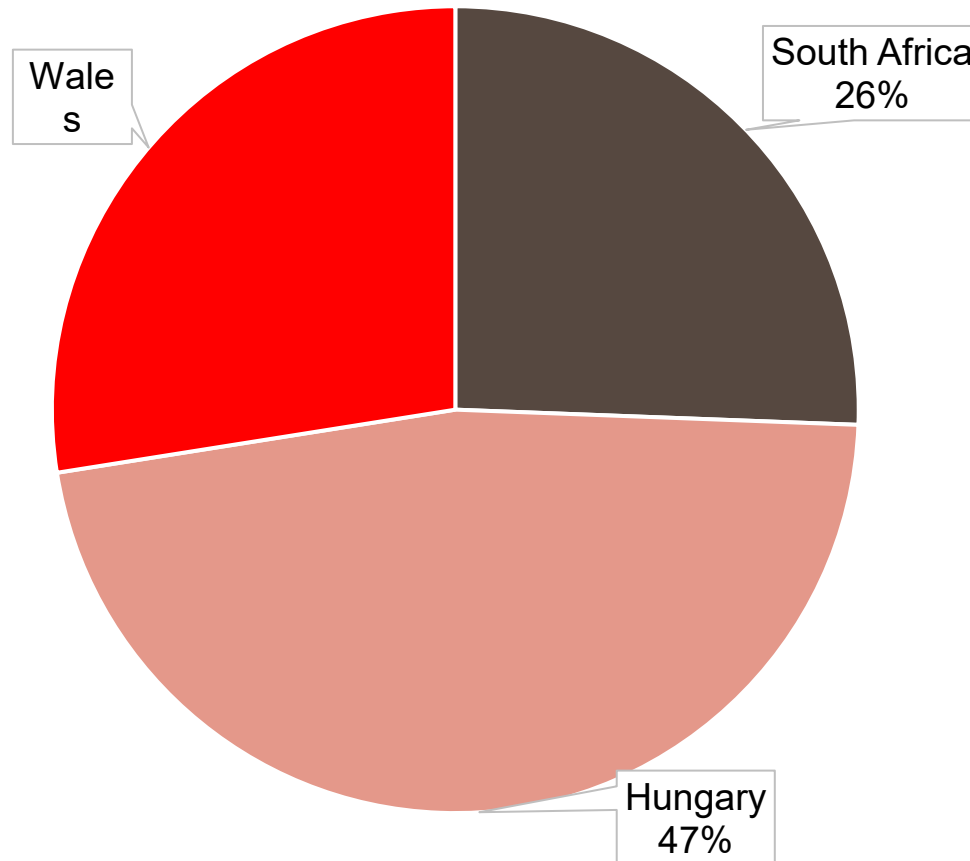
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Student participants by country:



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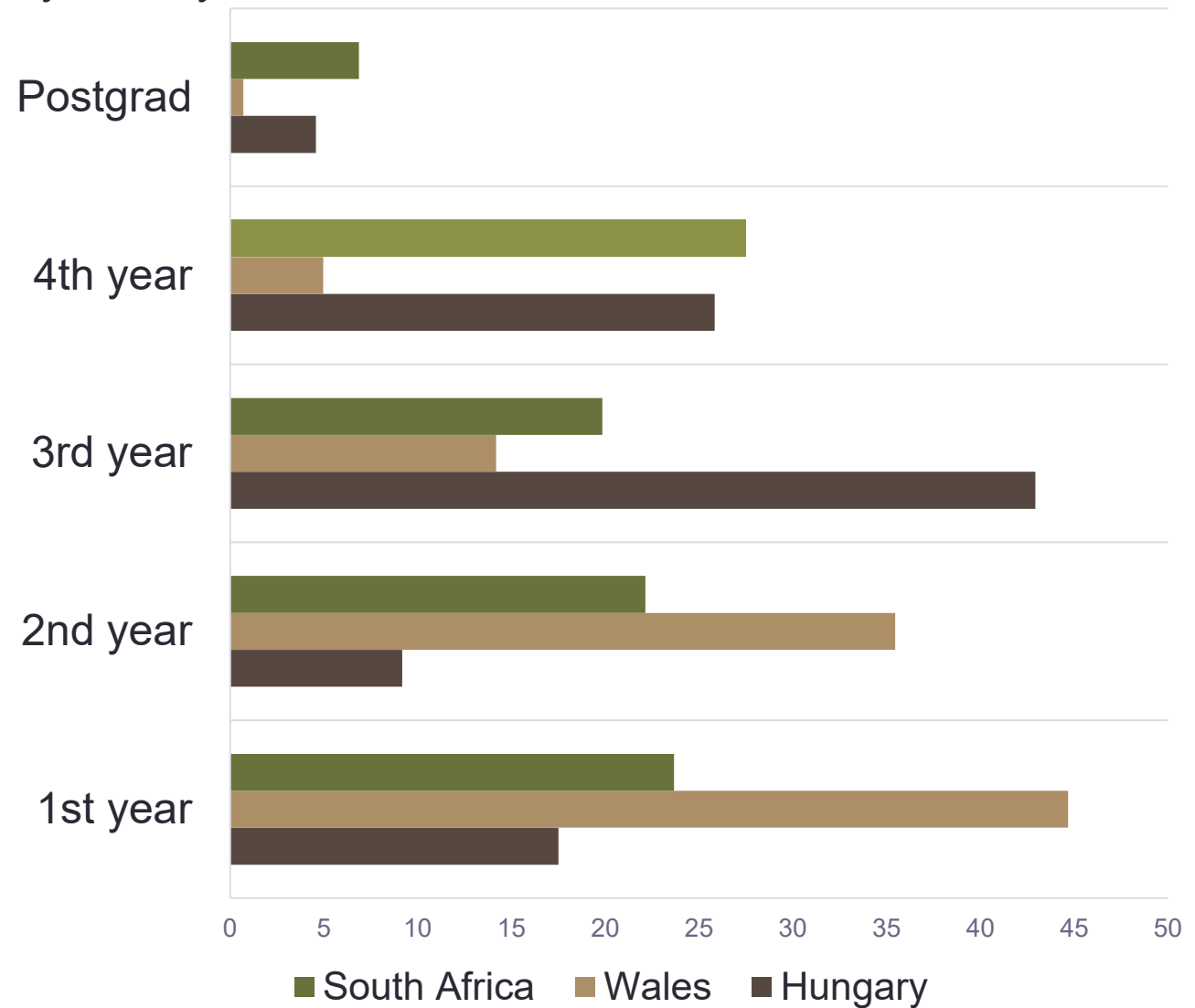
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Student participants' year of study by country:



■ South Africa ■ Wales ■ Hungary

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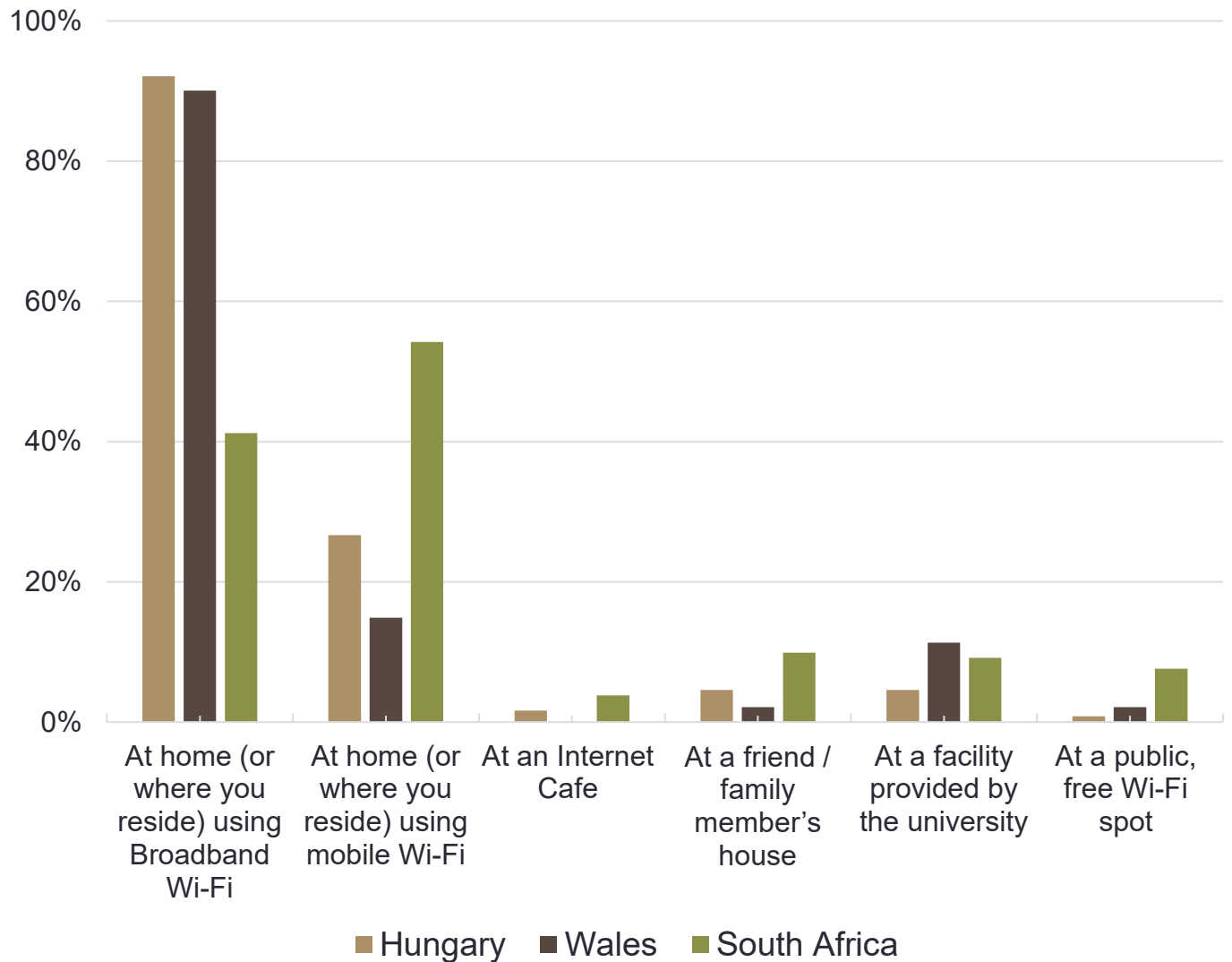
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Digital access



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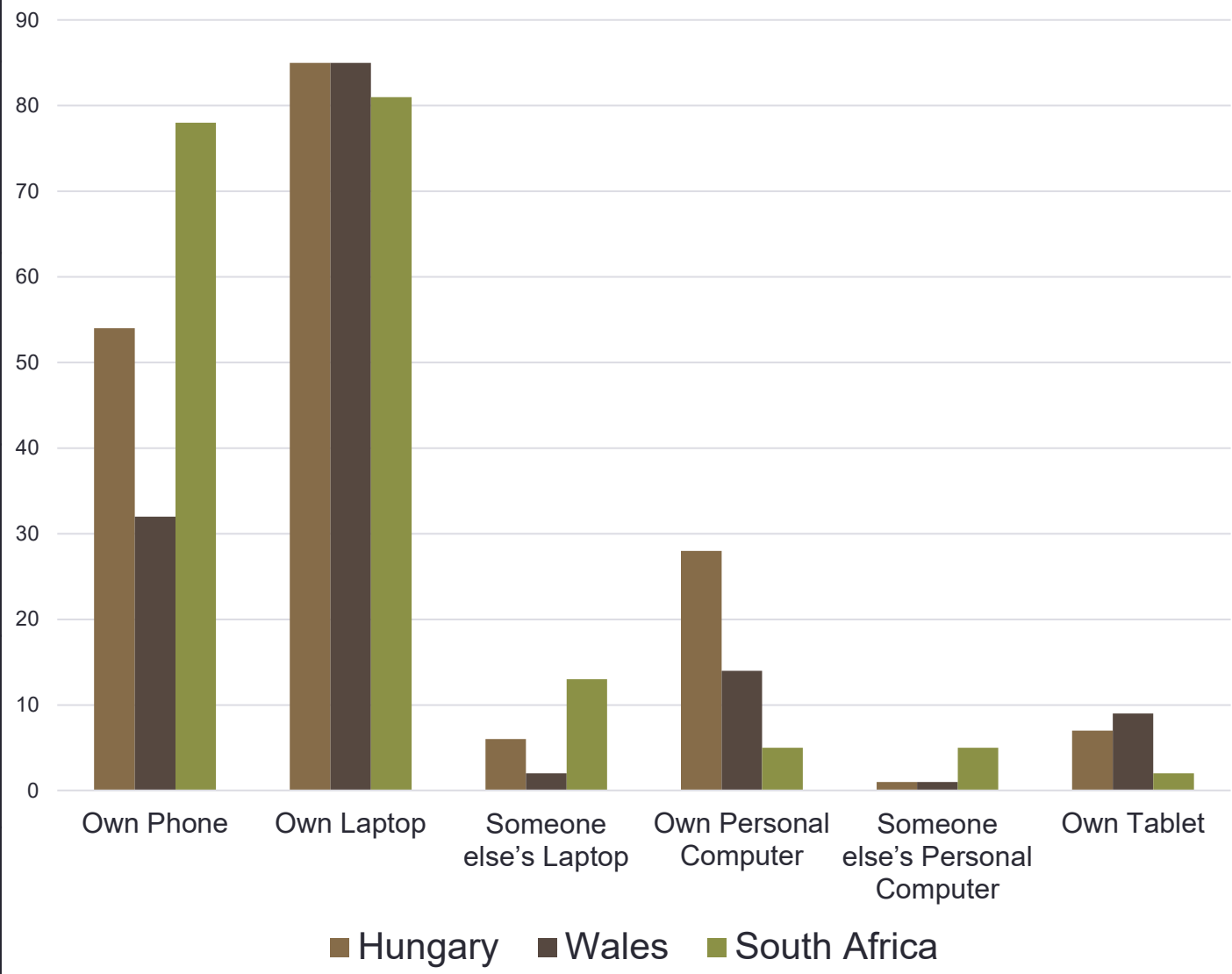
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Digital access



■ Hungary ■ Wales ■ South Africa

Professor Renette Blignaut (University of the Western Cape, SA)

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Digital access

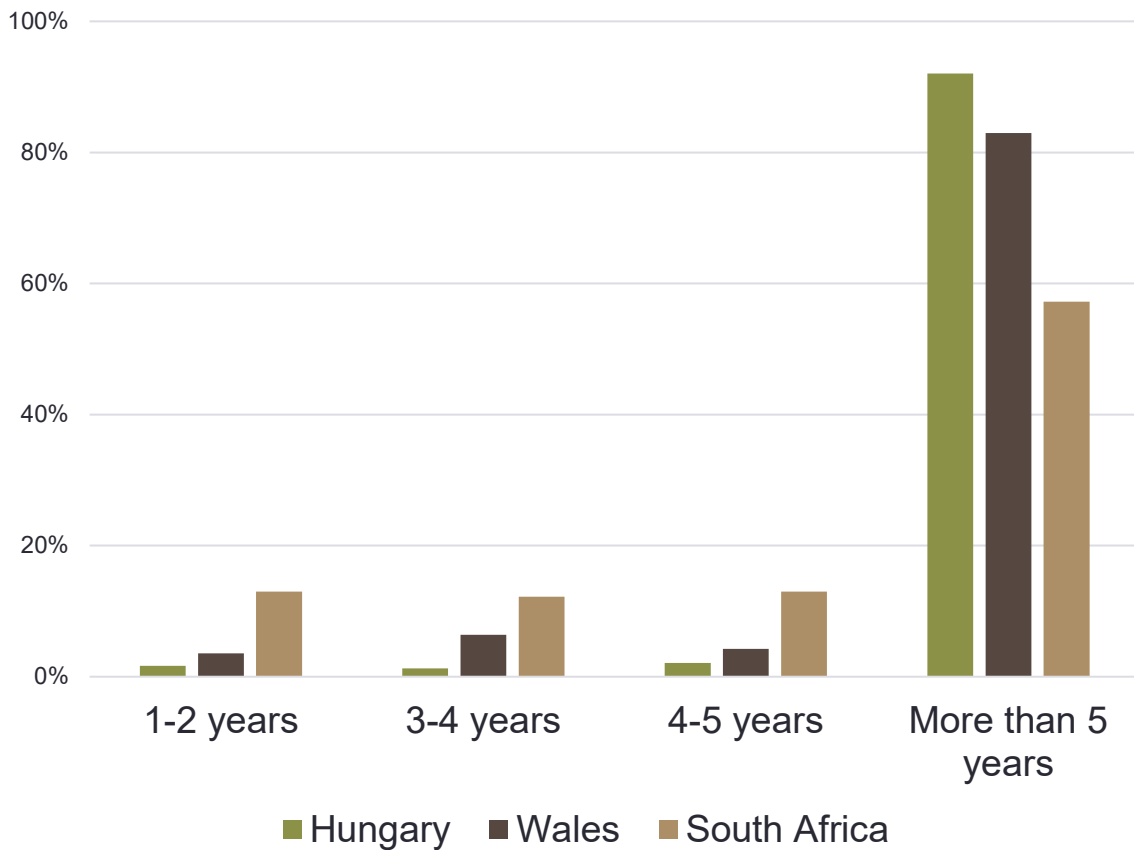
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Costs increase (%)	Hungary n=240	Wales n=141	South Africa n=131	Chi-Sq and P value
Accommodation costs	10	10	40	Chi ² =55.49 and P<0.0001
Internet access costs	20	14	73	Chi ² =132.59 and P<0.0001
Digital equipment costs	30	40	53	Chi ² =20.4 and P=0.0004

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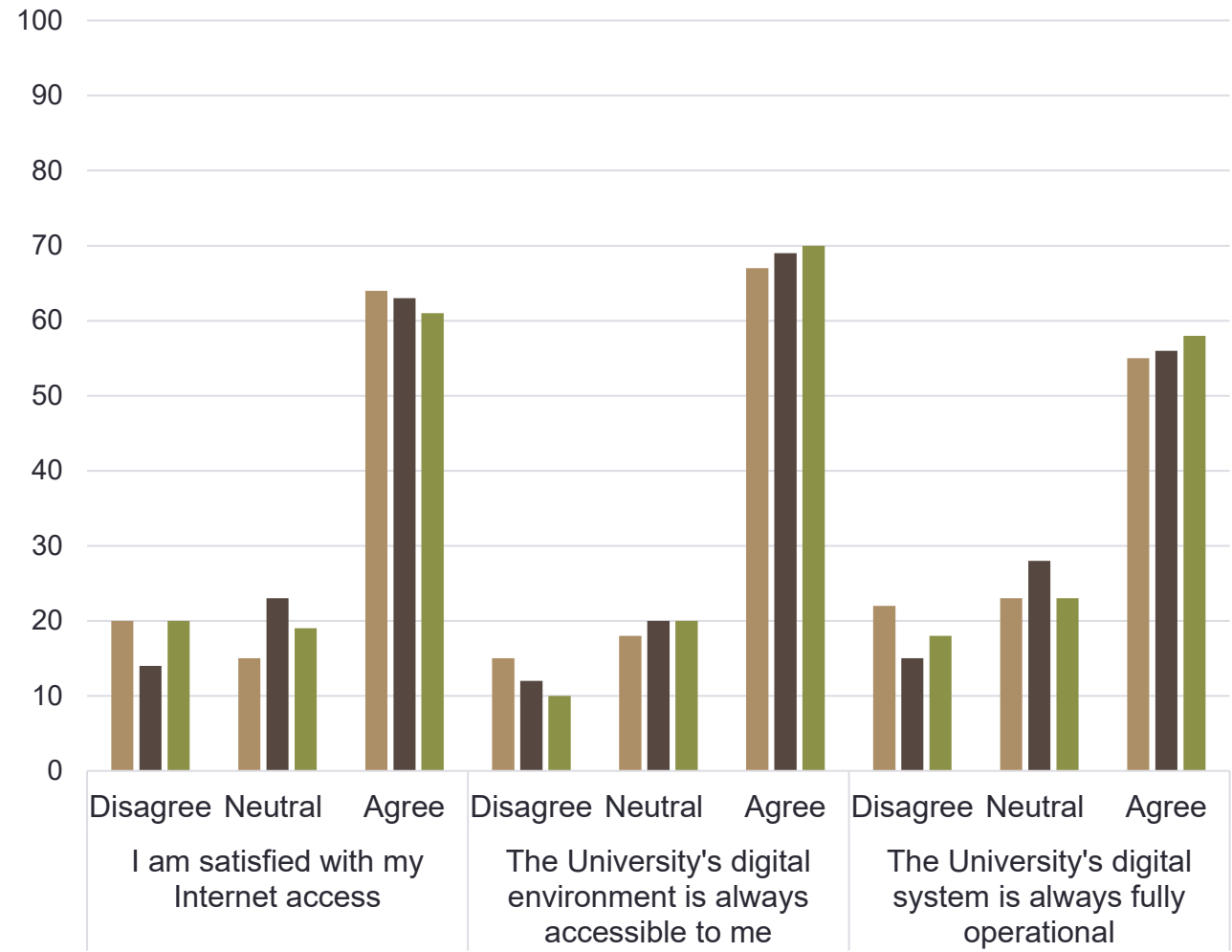
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■ Hungary ■ Wales ■ South Africa

Dr Andrea Tick (Obuda University, Hungary)

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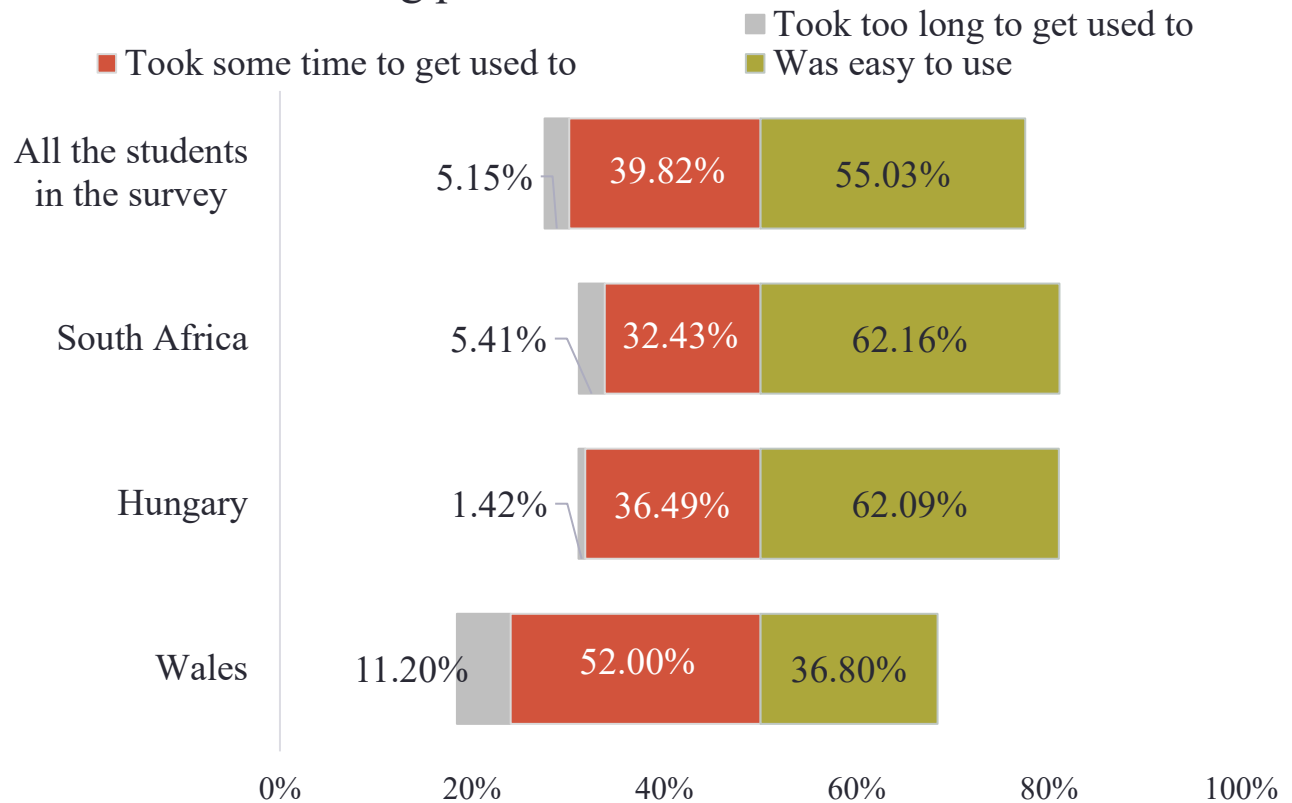
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Attitude

Student experience of the universities online learning platform



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Attitude

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Transition to online learning experienced

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Not easy nor challenging

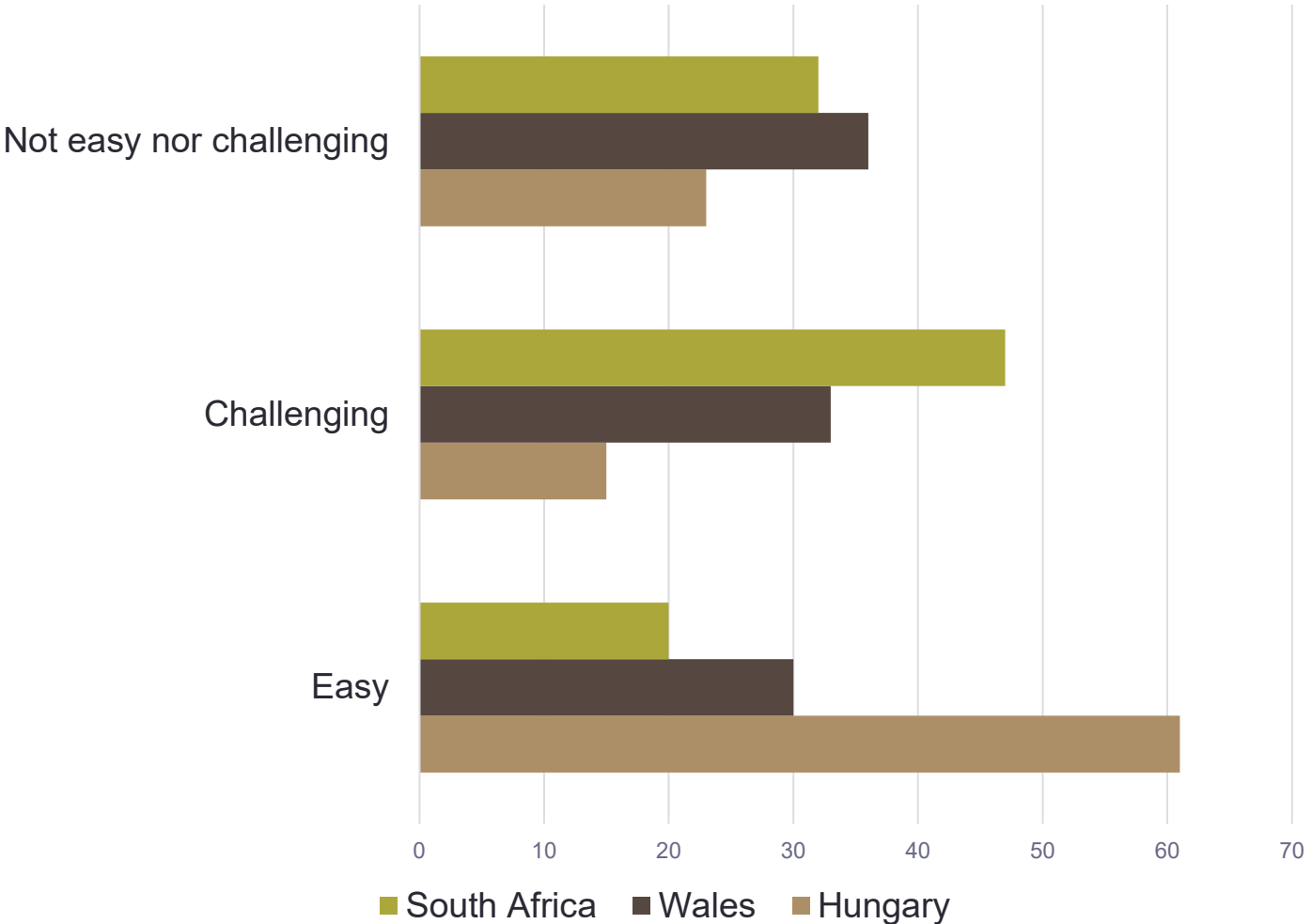
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Challenging

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Easy

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Behaviour

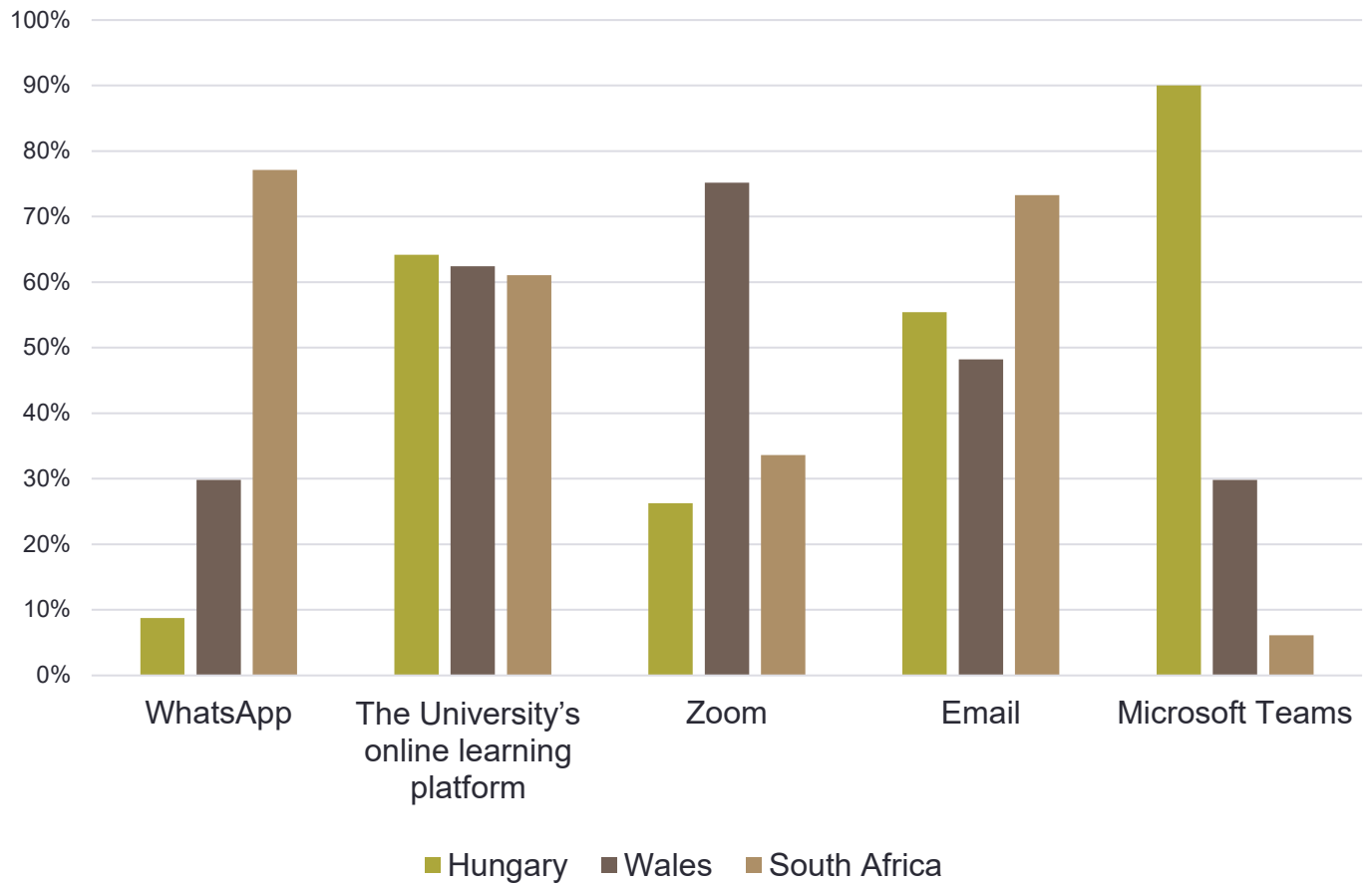
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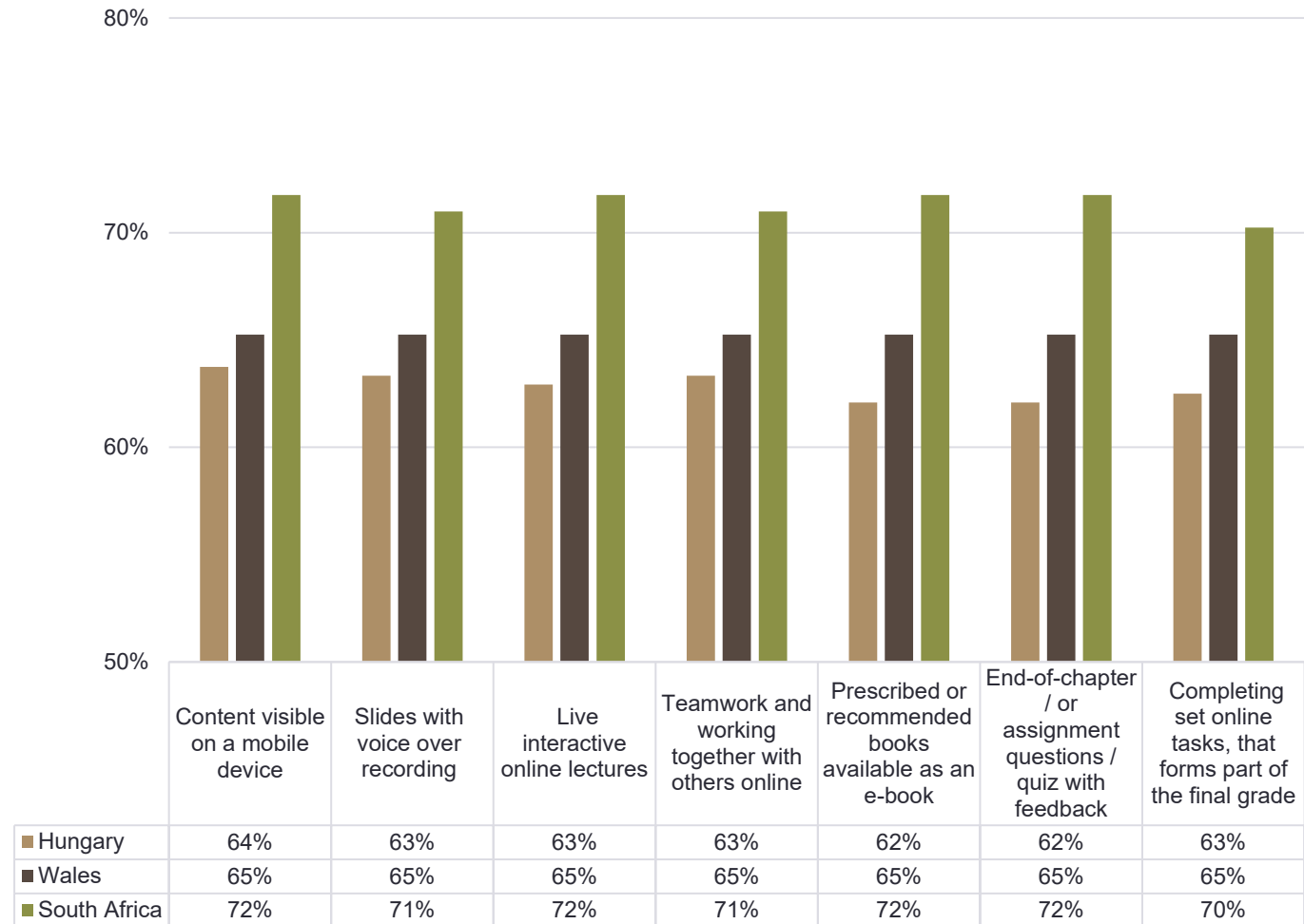
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The aim of the study was to determine:

- the online challenges and experiences of higher education students during COVID-19
- how access to digital technologies impacts the student online learning experier



Source [11]

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In particular the following were considered:

Digital access
Attitudes, and
Behaviours



Source [11]

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- In general, the South African students used their mobile data for Internet access while the Hungarian and Welsh students used broad band and Wi-Fi
- Most students used their laptops to access the Internet, with mobile devices being the second most popular devices
- Hungarian students preferred using PC's



Source [12]

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Behaviour

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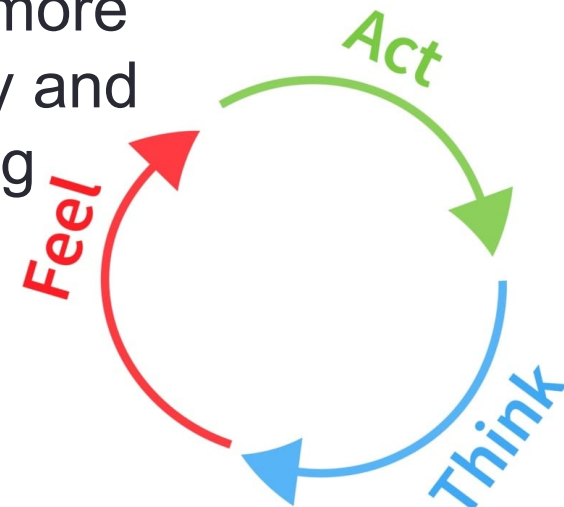
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- The preferences of digital technologies were more important for the participating South African students' learning experience
- South African students indicated that they prefer more digital support, interactivity and engagement in the learning process opposed to the Welsh and Hungarians.



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To conclude

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- Generation Z is receptive
- Environmental digital readiness and the capacity of staff, institution and country, can influence the student learning experience

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Source [16]

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To conclude

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There is a demand from students to include new modalities

AIM

New modalities and best practices should be embraced

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Source [17]

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ACKNOWLEDGEMENTS

School of Management, Swansea University
Research Committee of the University of the Western Cape,
South Africa,
Óbuda University, Hungary



Swansea University
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