

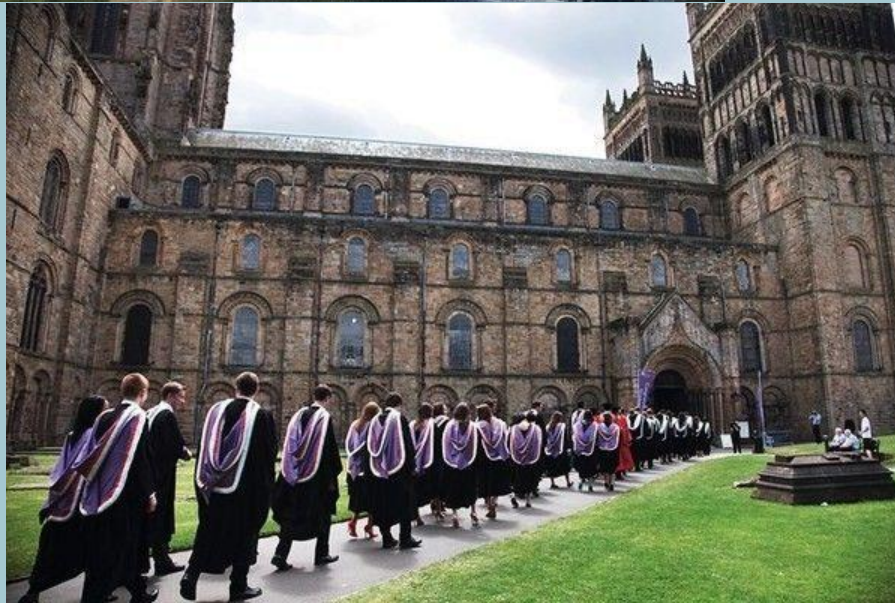
# ダラム大学における コロナ状況下での教育・研究活動

王静芸

映画『ハリー・ポッター』シリーズの中でホグワーツ魔法魔術学校として登場する。



ダラム大聖堂





## Computer Science Department

2020年9月に九州大学からダラム大学  
コンピュータサイエンス学科に転職した。



**A world top 100 university**

Ranked 86th in the *QS World University Rankings (2021)*



**A top UK university**

4th in the *Guardian University Guide (2021)* and 7th in *The Complete University Guide (2021)*



**26 departments or schools**

Offering over 200 undergraduate courses and 100 taught postgraduate courses, and many research degrees.



**Over 4,300 staff members**

Over 40% of academic staff are non-UK origin.



**Four faculties**

Arts and Humanities, Business, Science, and Social Science and Health.



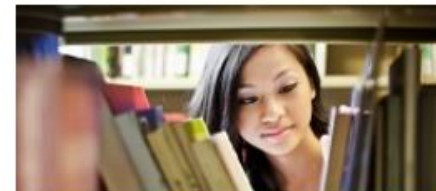
**17 Colleges**

Durham's distinctive residential and educational communities.



**A top university for employability**

Ranked in the world top 40 for the employability of our students by blue-chip companies world-wide *QS Graduate Employability Ranking (2020)*



**Over 30% of students are of non-UK origin**

Over 130 countries represented in our staff and student bodies, creating a diverse social and academic community.



**A total student population of 18,707 (2018/19)**

Made up of undergraduate and postgraduate students, from home and international.

# Artificial Intelligence and Human Systems Group

<https://sites.durham.ac.uk/icg/AIHS/>

Artificial Intelligence, Bias in AI, Explainable AI, Data Analytics, Natural Language Processing, Digital Humanities, Human-centred Computing, Data Science, Data Analytics, ML, Deep Learning, Personalization

世界中の優秀な研究者からの講演を招待し、小規模でより親密な読書グループを主催しています。(週1回)

# E-learningシステム

Blackboard  
learn<sup>+</sup><sub>TM</sub>

duo durham university online

↑ ? Login

Welcome to duo

## Connected Systems

Information about other tools you can use via duo:



**Turnitin** - assessments & plagiarism  
System Status



**Panopto** - lecture recording ( **Encore**) 2018年から  
System Status



**Collaborate Ultra** - web conferencing  
System Status



**Kaltura** - media streaming  
System Status



**Pebblepad** - reflective portfolios  
System Status



**Turning Point** - class polling app  
System Status

zoom



Microsoft Teams



Powered by Panopto

Search in folder "Meeting Recordings"...



Create

# Durham University Online (duo) (Blackboard)

- Home
- My Folder
- Shared with Me
- Everything

Browse

## Meeting Recordings

Refresh Filter by date  Show scheduled recordings

Sort by: Name Duration Date



### Data Collection and Cleaning Lecture 7

a day ago

Zoom Meeting ID: 91225903712 • Host: JINGYUN WANG • Meeting Start: 02/25/2021 @ 11:03 AM • Recording Start: 02/25/2021 @ 11:03 AM • Duration: 1 h...

Data Science (20/21)

Course Panopto Content

## Panopto Content

Search in folder "Data Collection and Cl..."

Create

### Data Collection and Cleaning

Sort by: Name Duration Date

- Zoom Meeting ID: 91225903712 • Host: JINGYUN WANG • Meeting Start: 02/04/2021 @ 10:52 AM • Recording Start: 02/04/2021 @ 10:52 AM • Duration: 1 h...
- Data Collection and Cleaning Lecture 3**  
a month ago  
Zoom Meeting ID: 91225903712 • Host: JINGYUN WANG • Meeting Start: 01/28/2021 @ 10:47 AM • Recording Start: 01/28/2021 @ 10:47 AM • Duration: 1 h...
- Data Collection and Cleaning Lecture 2**  
a month ago  
Zoom Meeting ID: 91225903712 • Host: JINGYUN WANG • Meeting Start: 01/21/2021 @ 10:51 AM • Recording Start: 01/21/2021 @ 10:51 AM • Duration: 1 h...
- Data Collection and Cleaning Lecture 1**  
a month ago  
Zoom Meeting ID: 91225903712 • Host: JINGYUN WANG • Meeting Start: 01/14/2021 @ 10:52 AM • Recording Start: 01/14/2021 @ 10:52 AM • Duration: 1 h...



Meeting Recordings > Data Collection and Cleaning Lecture 7

Durham University  
**Pandas**  
Week 17--Topic 6  
jingyun.wang@durham.ac.uk

[https://pandas.pydata.org/pandas-docs/stable/user\\_guide/10min.html](https://pandas.pydata.org/pandas-docs/stable/user_guide/10min.html)  
<https://www.datacamp.com/community/tutorials/python-excel-tutorial>

if you have to deal with data analysis, you can skip this package and it is a very useful one.

Language: English (United Kingdom)  
Import captions

**Captions** not just the picture, because we have also had a lot of parents still at the beginning. 4:06

Slides

Quizzes

Cuts I couldn't connect and have some promos are coming out. So we're an. 4:11

Streams This week, we will continue in our Late Show to introduce Pinder's, and this is one of the most important pickney nowadays. 4:20

If you are working in a company or even in academic jobs, 4:30

if you have to deal with data analysis, you can skip this package and it is a very useful one. 4:36

Enter a caption

4:38 -48:40 1x Speed Preview

Preview cuts during playback

P1 S1

## ビデオ編集と字幕制作



# Empower students to do their best, original work

turnitin UK

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This is your assignment inbox. To view a paper, select the paper's title. To view a Similarity Report, select the paper's Similarity Report icon in the similarity column. A ghosted icon indicates that the Similarity Report has not been generated.

Data Analytics in Action - Project  
INBOX | NOW VIEWING: ALL PAPERS

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	AUTHOR	TITLE	SIMILARITY	GRADE	RESPONSE
<input type="checkbox"/>			56%		
<input type="checkbox"/>			43%		
<input type="checkbox"/>			31%		
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<input type="checkbox"/>			8%		
<input type="checkbox"/>			7%		
<input type="checkbox"/>			6%		
<input type="checkbox"/>			6%		

コンテンツの構成を見ることができる

盗用状況

## A Plagiarism Report with Powerful Results

Similarity Report for Cassandra James: The Role of Women in Northanger Abbey

Submission 1 of 3

Overall Similarity: 25%

1<sup>st</sup> Flag

25% Overall Similarity

1<sup>st</sup> Lippman.edu/austen... 21%

2<sup>nd</sup> Wikipedia.org/Austen... 4%

3 text matches

Merril Smith in Women's Roles in Eighteenth-Century America shows the evolution of the female role in the United States and Europe. The author admits it is an important part of the history and describes female role according to different aspects like: family life, marriage, religion, political life etc.

Merril Smith views Jane Austen as a companion in her ideas and Northanger Abbey as a manifestation of men and women equality, and starts her book with the words of Catherine speaking about history "The quarrels of popes and kings, with wars or pestilences, in every page; the men all so good for nothing, and hardly any women at all" (Tucker, p101). The education for women in the 18th century was very important. As they were deeply-rooted in domestic affairs, education was a great opportunity for employment and career prospects. That is why, increased interest in literacy and reading is observed in that time society and the novel, particularly. Women were interested in writing, music and painting apart





View 3 Excluded Similarities

# Reading Lists

## Data Science

Edit View My Lists

### Data Collection and Cleaning

-  **Python data science handbook: essential tools for working with data**  
Book - by Jacob T. Vanderplas - 2016 - Importance not set
-  **Python for data analysis: data wrangling with pandas, NumPy, and IPython**  
Book - by Wes McKinney - 2018 - Essential
-  **Data mining: practical machine learning tools and techniques**  
Book - by I. H. Witten; Eibe Frank; Mark A. Hall - c2011 - Importance not set
-  **Data science from scratch: first principles with Python**  
Book - by Joel Grus - 2019 - Essential

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Python for Data Analysis : Data Wrangling with Pandas, NumPy, and IPython

by Wes McKinney  
PUBLISHER  
O'Reilly Media, Incorporated  
DATE  
2017-09-25  
More...

Search within book

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- Cover
- Copyright
- Table of Contents
- Preface
- Chapter 1. Preliminaries
- Chapter 2. Python Language Basics, IPython, and Jupyter Notebooks

CHAPTER 7

### Data Cleaning and Preparation

During the course of doing data analysis and modeling, a significant amount of time is spent on data preparation: loading, cleaning, transforming, and rearranging. Such tasks are often reported to take up 80% or more of an analyst's time. Sometimes the way that data is stored in files or databases is not in the right format for a particular task. Many researchers choose to do ad hoc processing of data from one form to another using a general-purpose programming language, like Python, Perl, R, or Java, or Unix text-processing tools like sed or awk. Fortunately, pandas, along with the built-in Python language features, provides you with a high-level, flexible, and fast set of tools to enable you to manipulate data into the right form.

If you identify a type of data manipulation that isn't anywhere in this book or elsewhere in the pandas library, feel free to share your use case on one of the Python mailing lists or on the pandas GitHub site. Indeed, much of the design and implementation of pandas has been driven by the needs of real-world applications.


In this chapter I discuss tools for missing data, duplicate data, string manipulation, and some other analytical data transformations. In the next chapter, I focus on combining and rearranging datasets in various ways.

#### 7.1 Handling Missing Data

Missing data occurs commonly in many data analysis applications. One of the goals of pandas is to make working with missing data as painless as possible. For example,



# 教育支援



**Durham University**  
Computing and Information Services

## IT Service Desk

"Helpful, Efficient and Friendly"

- Support available 24/7
- Make requests
- Report a problem
- Get help and advice

Self-Service Portal	Service Catalogue	Contact Us
Campus Cards	Change Your Password	User Accounts
Printing	Wireless	Email
Bill Bryson Library Durham - Book appointment to visit the IT Service Desk	Bill Bryson Library Book a virtual online surgery appointment	ISC Library ISC - Book appointment to visit the IT Service Desk in Queens

## New Call

### Caller

Name

Telephone Number \*

Email

Department

In which building are you located? \*

### Details

Brief Description \*

Are you using one of the following? \*

MDS (Managed Device)

BYOD (Personal Device)

Standalone (Departmental)

In order to process your call as quickly as possible, please include the following information where possible:

- Any error messages
- Programs being used and versions
- Device name (for University owned computers)
- Your location

Tell us some more details \*

Attachment

- DCAD
- About Us
- News
- covid19**
- Academic Development for Students
- Foundation Programme
- Pre-sessional Programmes
- MA Programmes
- Academic Development for Staff
- Researcher Development

# COVID-19 Response

## Supporting Teaching & Learning

DCAD staff are working hard to support staff and students during these extraordinary times.

The following resources have been developed in conjunction with the [Educational Development Unit](#) at the Business School and the D

- [Designing Digitally](#) - resources aimed at staff to help review modules for the coming academic year
- [Teaching Online](#) - resources aimed at staff - updated with a new Supporting Online Students Guide
- [Learning Online](#) - resources aimed at students
- [Teaching & Learning with Video](#) - resources aimed at staff
- [Online Meeting/Lecture Tools](#) - for staff and students
- [Resilient Teaching in a Hybrid World](#) - resources aimed at staff
- [Taking Online Exams](#) - a guide for students
- [Diversity in Assessment](#) - a guide aimed at staff wanting to explore alternate assessment options

Following a successful summer pre-sessional delivered online to over 700 students at distance in China, this [quick guide](#) provides some delivering classes online in China.

## Training Courses

DCAD are running a series of training courses for staff.

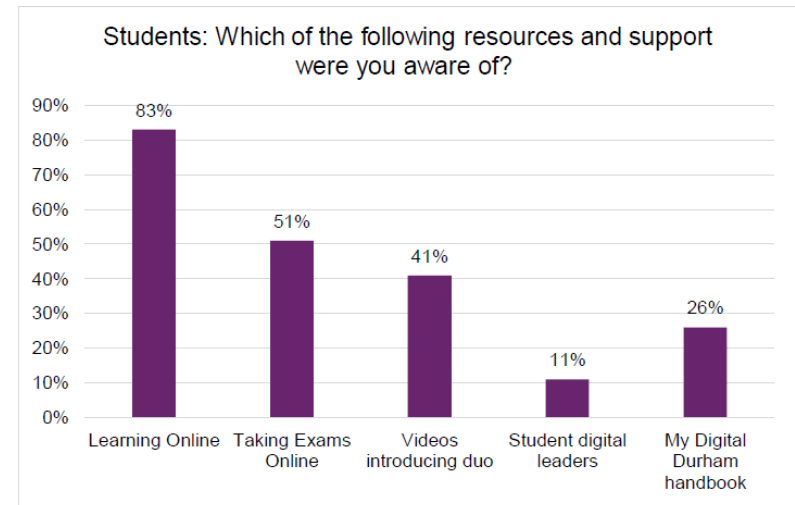


Figure 5: Student awareness of resources and support for online and digital learning

## Teaching Supply

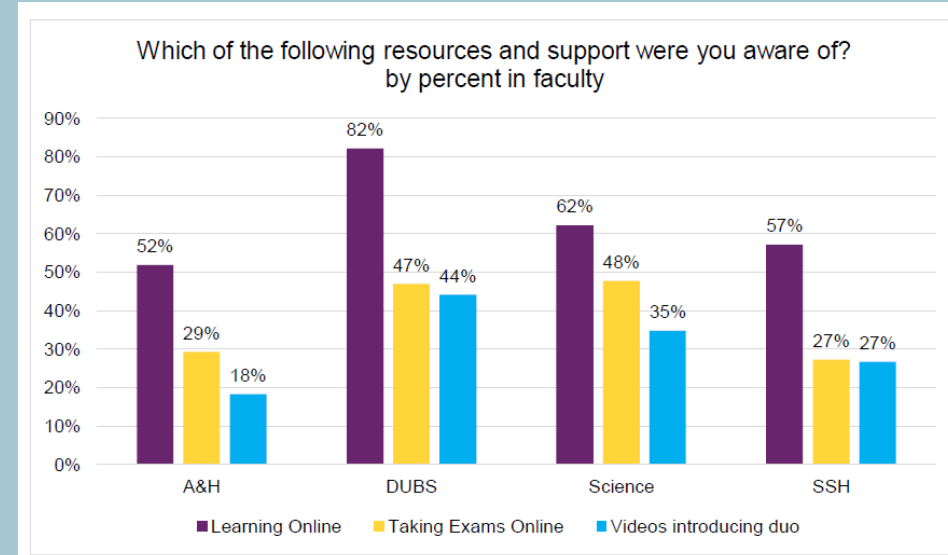


Figure 6: Student awareness of centrally produced guides to support learning online

# Durham University Digital Experience Insights Surveys: Michaelmas 2020

ended on 4 December 2020

- 学生とスタッフにとって
  - 最大の利点は柔軟性でした。
  - 最大の欠点は、交流が少ない。学生のモチベーションの欠如。
- 学生は、講師や他の学生とのライブの交流の機会が欲しいです。
- 技術的な問題とハードウェア/ソフトウェアの制限は、教育と学習の経験に大きな影響を与えました。

Responses by faculty	Responses by level
Arts & Humanities: $n=253$ of 3913, 6%	<b>Foundation and 1<sup>st</sup> year undergrad*</b> : $n=538$ of 5981, 9%
Business School: $n=179$ of 3654, 5%	2 <sup>nd</sup> year undergrad: $n=274$ of 4671, 6%
<b>Social Sciences &amp; Health*</b> : $n=382$ of 5240, 7%	3 <sup>rd</sup> & 4 <sup>th</sup> year undergrad: $n=288$ of 4384, 5%
<b>Science*</b> : $n=495$ of 5619, 9%	Postgrad taught: $n=212$ of 2657, 8%

Table 1: Student survey responses by faculty and level (asterisks indicate representative samples at a 95% confidence interval)

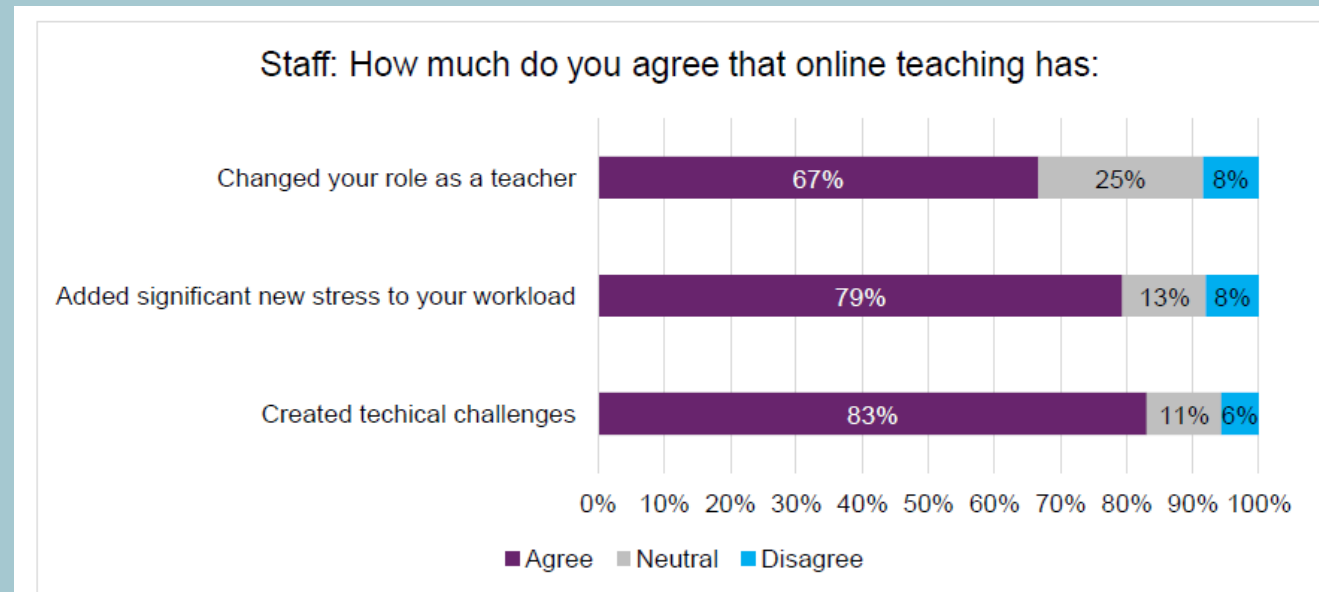


Figure 4: The effects of online teaching on academic staff and PGRs

# ライブオンラインセッション

**Blackboard Collaborate Ultra** と Teams の技術的な問題が多いです。  
**Zoom** は使いやすく、技術的な問題が少なく、チャットや Breakout rooms などのインタラクティブ機能が高く評価されました

## Breakout rooms

講師は、

- 生徒がお互いに話すことを奨励するための **ガイドライン** が必要です。
- グループがセッションの特定の目的に適した **サイズ** であることを確認する必要があります。
- 部屋に出入りできることを確認するか、同じ部屋にいないときに生徒に連絡する方法を知らせる必要があります。

# ライブオンラインセッション

## チャットとQ&A

多くの学生は、

- マイクを使用するよりも**テキストチャット**を介して(または教室や講義室で直接)質問する方が快適だと感じた。
- **Q&Aセッション**を高く評価した

講師は、テキストチャットに関する期待を管理する必要があります。

例えば、すべての質問に答えることができるかどうか、いつ停止するか、いつチャットを見るか、など。

## 演習について

学生は以下のところを高く評価した。

- ライブセッションの前に、学生が時刻や予定を発表すること
- ライブセッションへのリンクにすばやくアクセスできること

# 事前に録画されたビデオ/ライブオンラインセッションビデオ

➤ 学生は、

字幕を提供することに非常に感謝していました(障害およびその第一言語が英語ではない学生だけでなく)

ビデオを一時停止、減速、および再視聴することの利点について頻繁に言及した。

「講師が直接講義を行うと、質の高いリソースは必要ないかもしれない。」

➤ 教員にとって最大の問題は、**ビデオの作成とキャプションにかかる時間**、およびトレーニングやソフトウェアやハードウェアへのアクセスに関する問題でした。

- 事前に録画された講義の主な批判は、**ライブインタラクション**の欠如でした。
- 多くの学生は、オンライン学習によって**ワークロードが大幅に増加した**と感じました。  
MCQの分析では、非同期学習のみが、生徒に課せられた学習期待が妥当であるかどうかに関する否定的な反応に関連していることが示されました( $p < 0.05$ )。

# Durham University

## Digital Experience Insights Surveys: Michaelmas 2020

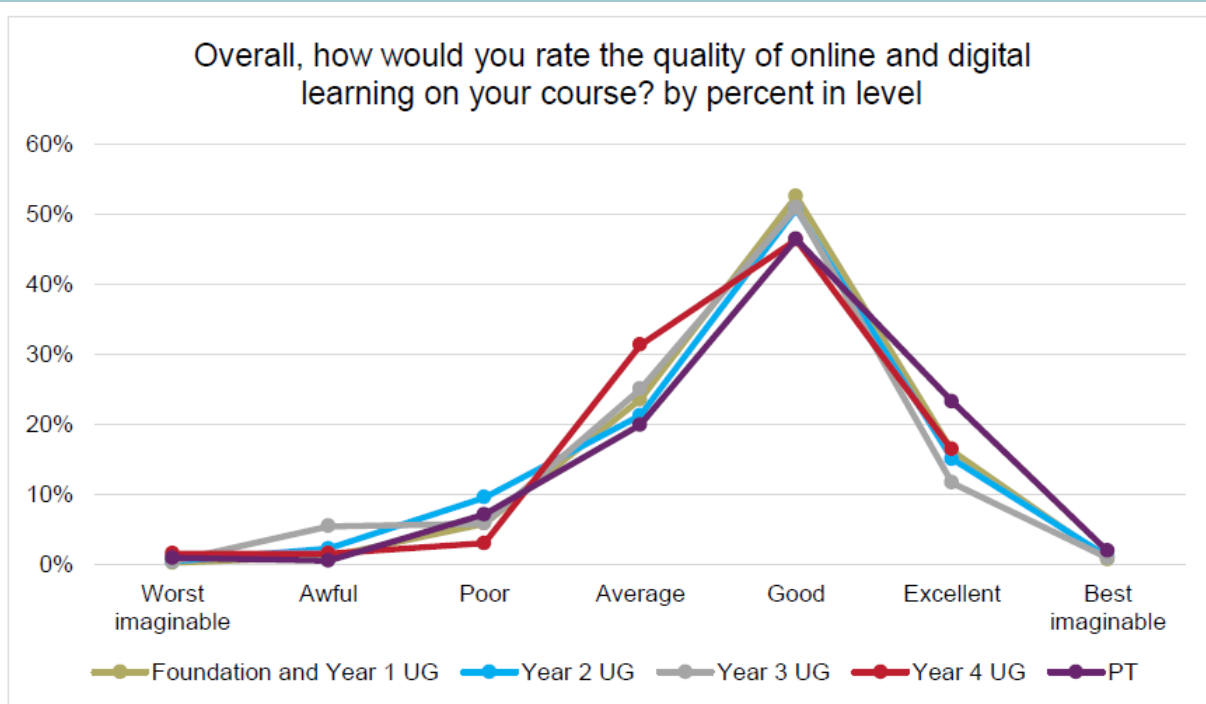


Figure 11: Level of study compared to rating of overall quality of online and digital learning

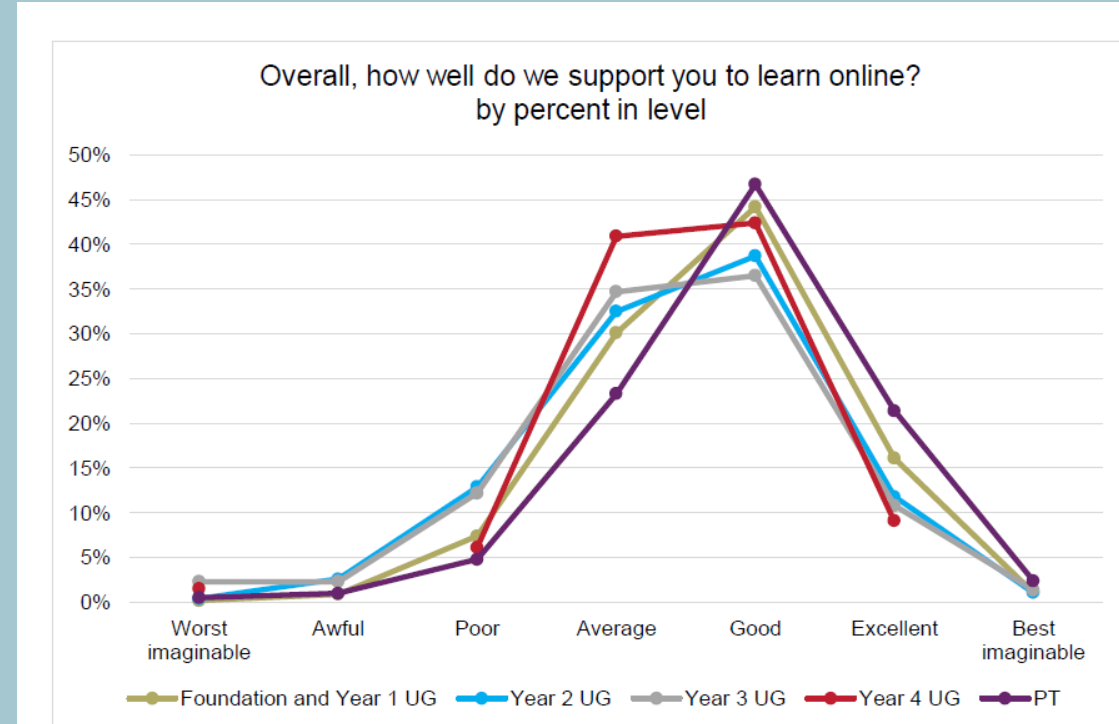


Figure 12: Level of study compared to rating of overall support for online learning

大学院生や留学生は他の学生よりもはるかに満足していた。

学部の1年生は、オンライン学習環境がナビゲートしやすいことに同意する可能性が低くなった。

# まとめ

- 理想的な教育モードの組み合わせには、**対面教育**、**ライブオンラインセッション**、および適切に構造化された**非同期リソース**と**アクティビティ**が含まれることを示唆しています。
- 学生は**非同期のみの学習**について最も否定的でしたが、ライブセッションに参加する機会もあったことを考えると、事前に録画されたビデオと厳選されたリソースが提供する柔軟性を高く評価しました。非同期学習は、他のアクティビティでの重要な学生と学生および学生とスタッフの**インタラクション**を含む、より幅広いアクティビティの要素としてのみお勧めします。
- 学生とスタッフの両方のフィードバックにより、オンラインおよびデジタルの教育と学習には多様なニーズがあり、それらは調整されたサポートとコンサルティングでより適切に対処できることが明らかになった。適切なトレーニング、サポート、アドバイスを確実に提供できるように、すべての**部門**が新しいデジタル教育コンサルタントと**連携する**ことをお勧めします。



**ご清聴  
ありがとうございました！  
Thank you very much!**