



Nottingham Trent
University

Education, Motivation and Learning (EDMAL) Research Group

An introduction

28/02/2023

Richard Remedios

Associate Professor in Student Motivation and Engagement



Plan for the talk

- Background – how and why did this group emerge?
- Projects and opportunities
- Parental Motivational Messages (PMM)
- Digital Skills (SB/LJ)
- Test and Statistics Anxiety (CF/LJ/RR)
- Child voice in Education – upcoming SIG (BD-Y)*
- How can EDMAL help you?

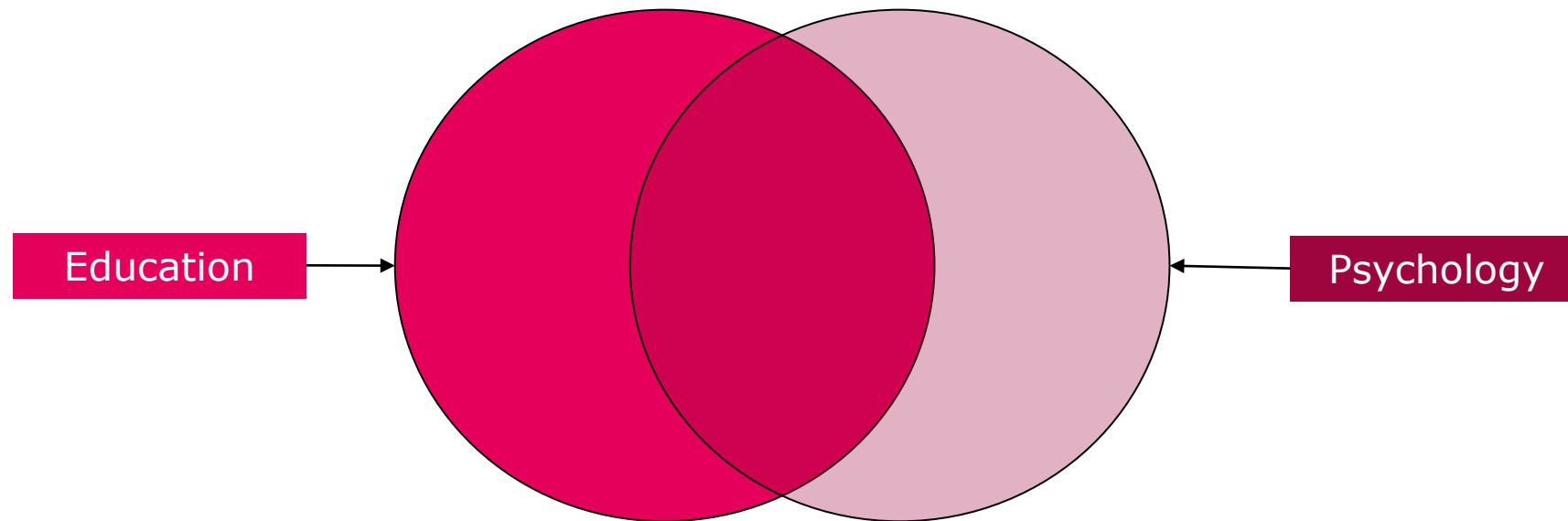
Background

How did we get here?



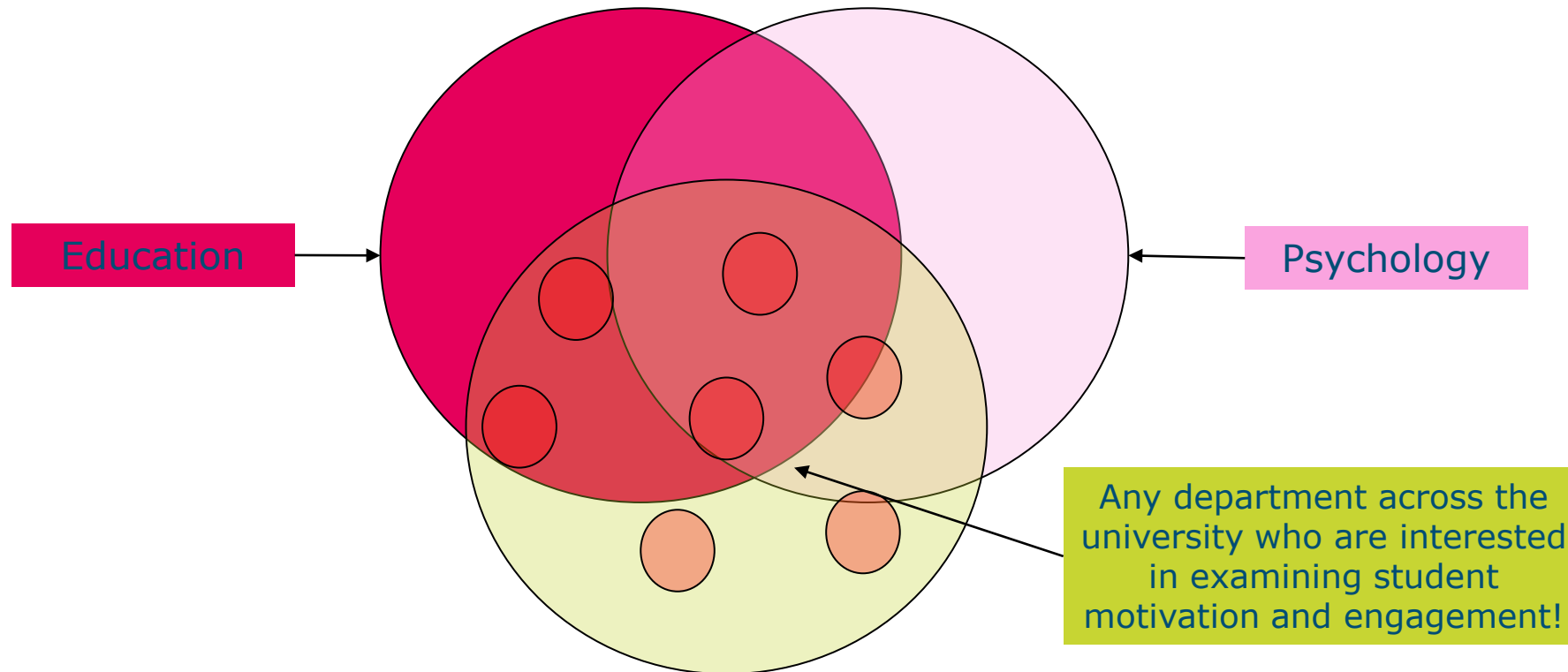
So much overlap

Schools and departments of Education and Psychology



With the whole University!

Schools and departments of Education and Psychology



EDMAL: more education than Psychology



Caroline Ford



Sarah Buglass



Beccie Davis-Yates



Richard Remedios



Michelle Cunliffe



Lucy Justice

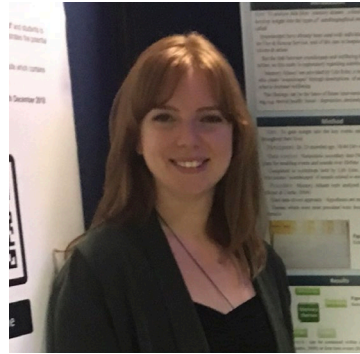
Projects and opportunities



Parental Motivational Messages



Michelle Cunliffe



Lucy Justice



Beccie Davis-Yates

- Click on this video link:
<https://nottinghamtrentuniversity.wistia.com/medias/nk9s4de6tl>
- How did we get to these conclusions?

Fear Appeals in Education



If you **don't** work hard, you **won't** get into college

Putwain, D. W., Symes, W., Laura J. Nicholson, L. J., and Remedios, R. (2021). Teacher motivational messages used prior to examinations: What are they, how are they evaluated, and what are their educational outcomes? *Advances in Motivation Science, Elsevier*. <https://doi.org/10.1016/bs.adms.2020.01.001>.

Parental Motivational Messages

Worrying or motivating? Students' experiences of their parents' motivational messages.

Projects to date:

- SPUR 2021 study with A-level students in UK (N=150)
- MSC 2021 study with A-level equivalent students in India (N=140)
- BA Leverhulme grant (£9,800) – Jan 2022-Jan 2023 – two studies with A-level students (N=1500)
- QR-funded project – HE students' experiences of their parents' motivational messages (qualitative study) – completed summer 2022.

Potential projects

- Motivational Inequality – are there differences in messages based on socio-economic status?
- Linking up with parent groups to examine their views on the motivational messages they give.
- Examining differences in motivational messages by subject, e.g., STEM, English.
- Cultural differences within and out-with UK.
- Messages given when outcomes are not high-stakes.

If any of this captures your interest, email richard.remedios@ntu.ac.uk.

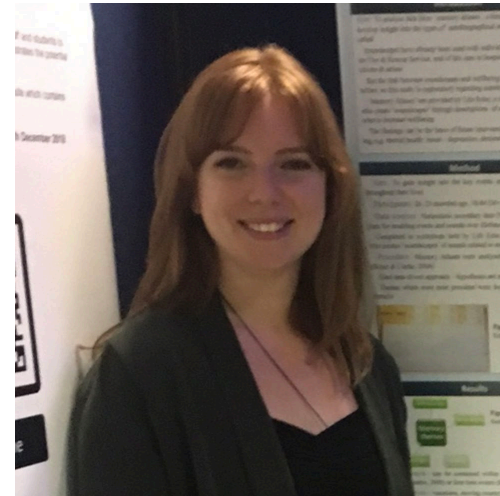
Digital Skills



Digital Skills team



Sarah Buglass



Lucy Justice

Essential Digital Skills for Psychology

- **Aim:** To support the development of students (and staff) digital and technical literacy in Psychology
- **Funding:** TILT funded Joint Sabbatical (commenced Sept 21)
- **Perceived Benefits:** improved confidence and self-efficacy, increased engagement with digital elements of the curriculum, development of transferable skills to promote success (graduate outcomes)

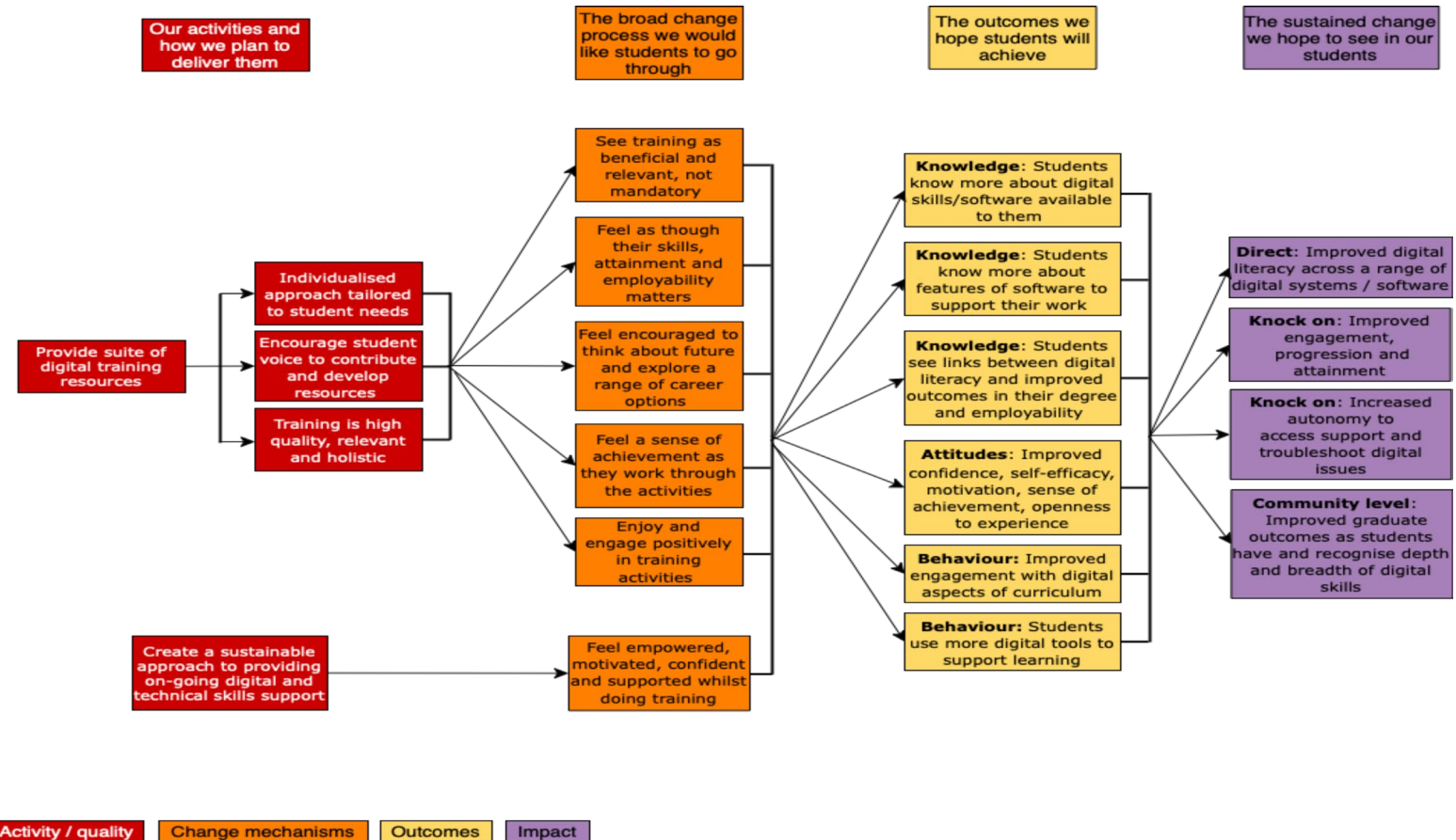
Outputs:

- Theory of Change - mapping activities and outcomes for students and staff
- Psychology Digital Skills Framework – detailed account of the digital and technical skills required at all levels of study – mapped to learning activity / assessment types
- Project Reports – overview of staff audit and student questionnaire
- Essential Digital Skills platform – a suite of resources hosted on NOW offering personalised pathways to digital development (differentiated learning)
- Publications linked to development and evaluation

Student theory of change

Student Problem Statement:

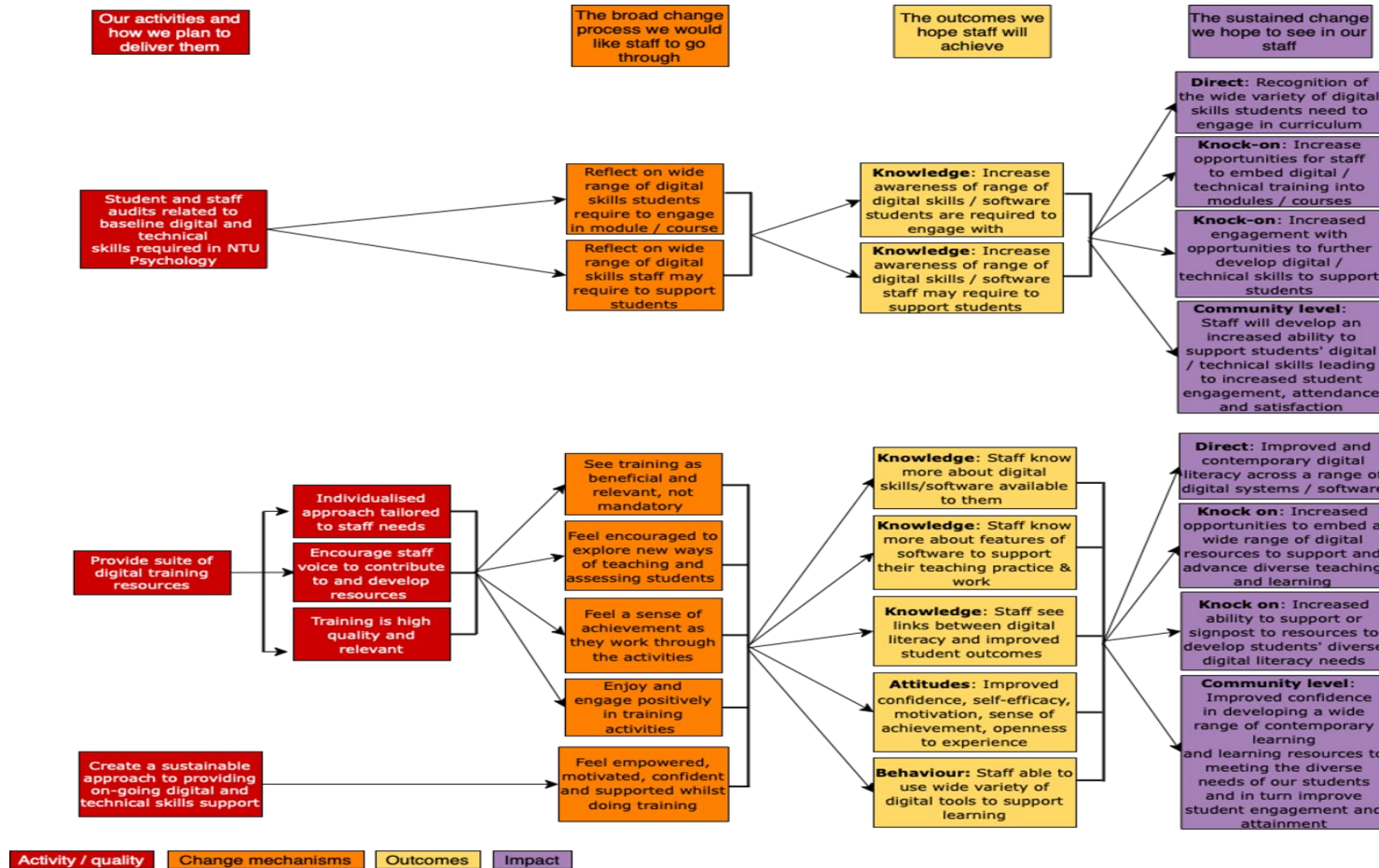
NTU Psychology welcomes a large cohort of students from diverse educational backgrounds which means that students have different levels of digital and technical experience. The increasing digital demands that the University places on students requires students to have a baseline proficiency across a wide range of applications to engage fully with the student experience. Lack of digital and technical skills is therefore likely to have consequences for their engagement, attainment and in turn employability.



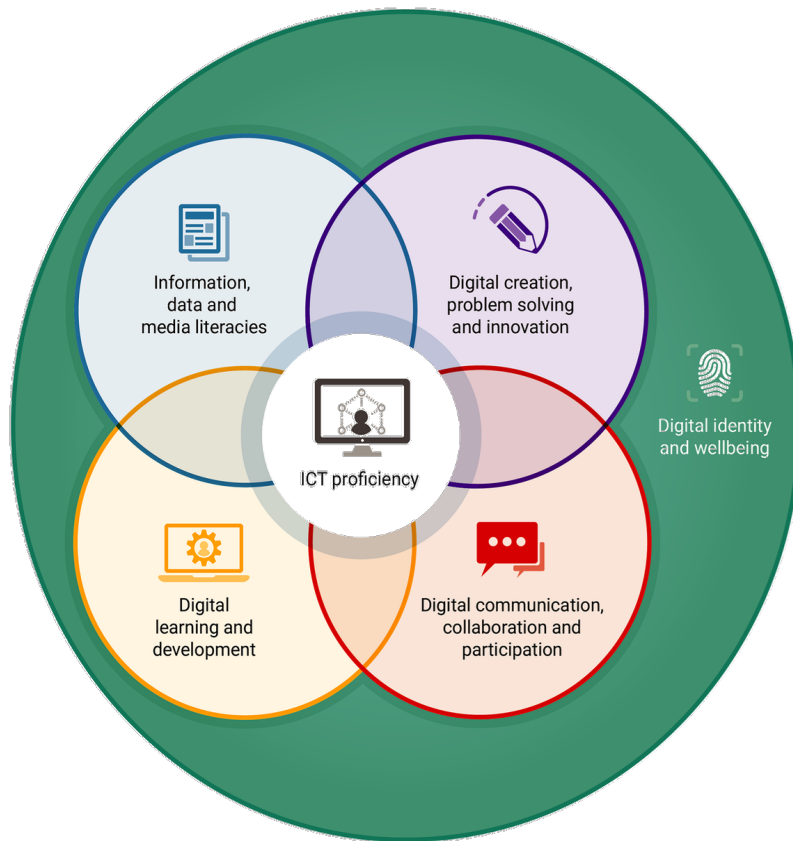
Staff theory of change

Staff Problem Statement:

The traditional mode of teaching in NTU Psychology is classroom-based and face-to-face, but over the last few years there has been an increasing requirement to use a wide breadth of digital skills that has highlighted potential skills gaps in some staff. Further, NTU strategy is promoting wider digital development of the curriculum and therefore staff will increasingly have to engage with a myriad of digital applications and platforms. Further, due to rapid increase in student numbers, staff do not have the opportunity to have personalised approaches with all students and therefore may not be aware of students' technological and digital backgrounds.



Digital Skills Framework



NTU Psychology Digital Competency	Corresponding Jisc (2018) Domains		
Accessing University systems and software	Digital learning and development	ICT proficiency	Digital identity and wellbeing
Engaging with asynchronous learning content	Digital communication, collaboration and participation		
Asynchronous communication	Digital communication, collaboration and participation		
Engaging with synchronous opportunities	Digital communication, collaboration and participation		
Digital assessment	Digital learning and development		
Digital document / content creation	Digital creation, problem-solving and innovation		
Finding digital information	Information, data and media literacies		
Handling and reporting data	Information, data and media literacies		
	Digital creation, problem-solving and innovation		
Designing and conducting digital research	Digital creation, problem-solving and innovation		
Data storage and file management	Information, data and media literacies		

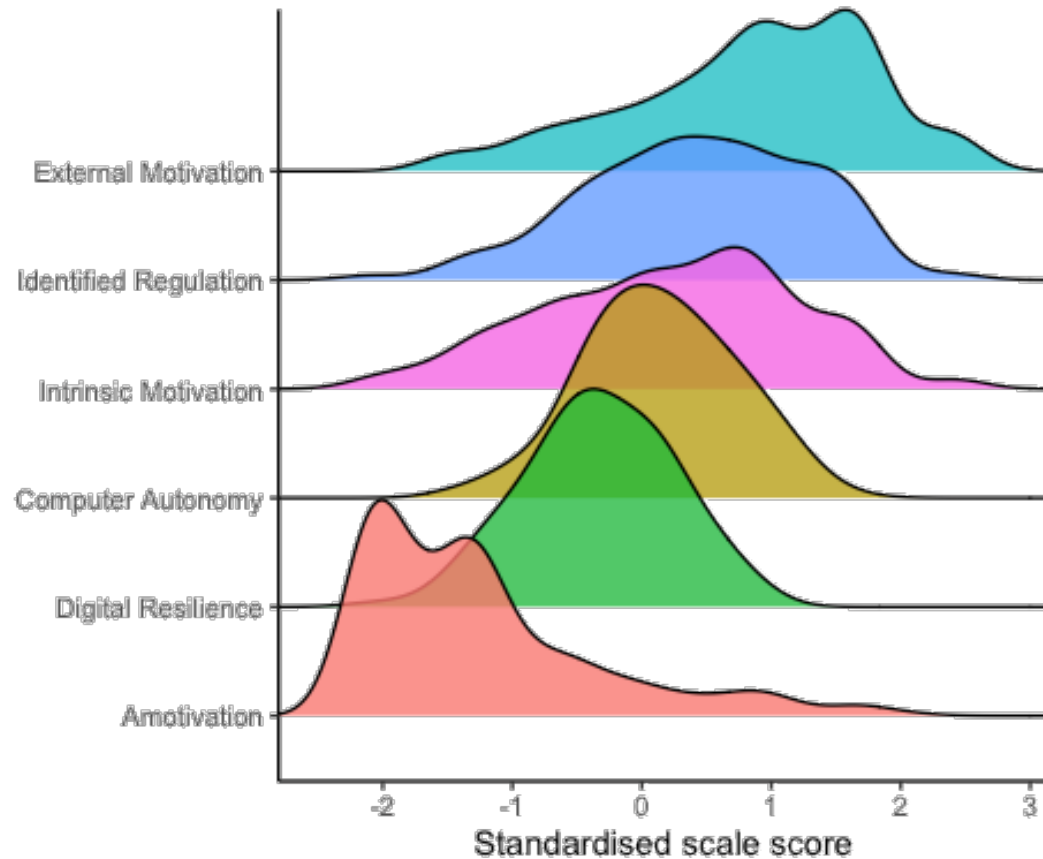
Digital Skills Framework

Area of Competency	Description	Indicative student and staff activities	Digital identity and wellbeing	Supporting employability (students and staff)
University systems and software	Accessing and using appropriate online university systems and software to support engagement with learning.	<p>Accessing the university learning platform (i.e., NOW) to view the timetable</p> <p>Accessing the student dashboard</p> <p>Using the MyNTU dashboard (or app)</p> <p>Accessing student/staff versions (i.e., free copies) of software that are required to complete the course / support work</p>	<p>Username and password management</p> <p>Use of local and remote system login protocols</p> <p>Virus protection</p>	<p>Following organisational guidelines and policies for accessing and using digital platforms including choosing secure passwords and changing them when prompted</p> <p>Awareness of IT Use and social media policies and how to apply them</p> <p>Using a range of software applications to complete day-to-day work-based tasks</p>
Engaging with asynchronous learning content	Viewing, interacting with and/or downloading asynchronous resources relevant to the courses and modules being studied.	Accessing the university learning platform (i.e., NOW) to find and view learning content and activities	<p>Time management</p> <p>Effective remote learning practices (i.e., prevention of information overload)</p>	<p>Interacting with online training opportunities provided by employers</p> <p>Accessing, editing and storing documents from employer</p>

Student Survey – preliminary analysis

- 257 NTU Psychology students (205 female)
- Survey considered:
 - Student demographics
 - Self-reported confidence across 30 digital skills
 - Computing autonomy
 - Need for computing control
 - Digital resilience
 - Measures of motivation (identified regulation, intrinsic, external, and amotivation).

Predictors of literacy

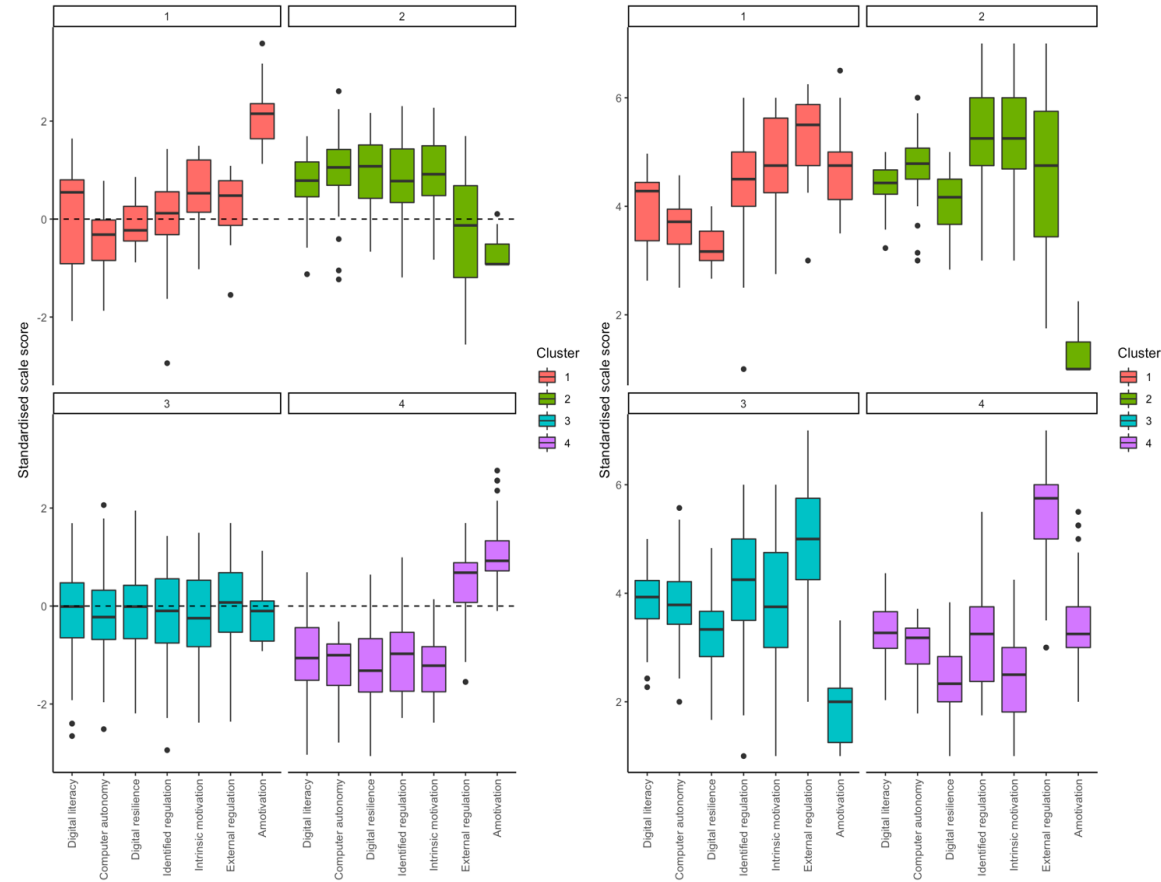


<i>Predictors</i>	<i>Estimates</i>	dl mean		
		<i>CI</i>	<i>t-value</i>	<i>p</i>
(Intercept)	2.36	1.75 – 2.96	7.69	<0.001
comp autonomy mean	0.14	0.02 – 0.27	2.25	0.026
digital resilience mean	0.23	0.10 – 0.36	3.54	0.001
identified regulation mean	0.06	-0.02 – 0.13	1.46	0.146
amotivation mean	-0.05	-0.13 – 0.02	-1.42	0.158
year of study [2]	0.16	-0.03 – 0.34	1.70	0.092
year of study [3]	0.39	0.16 – 0.63	3.26	0.001
gender [male]	-0.18	-0.40 – 0.04	-1.58	0.116
Observations	168			
R ² / R ² adjusted	0.303 / 0.273			

Student Digital Profiles

Latent profile analysis suggested four digital profiles:

1. Digital Neutrals
2. Digital Experts
3. Digitally Detached
4. Incidental Digital Learners





What would you like to do?



Develop Essential Digital Skills



Get Technical Support

Next steps

- Currently working with a Cyberpsychology Placement Student – 8 weeks to complete and evaluate the Digital Skills Platform
 - Focus groups with students/staff
- Repeat the Student Survey in 2022/23 – potential to move beyond Psychology.

Potential projects

- Anything related to the development of digital/technical skills (any age-group)
- Projects considering motivation to engage with digital/online learning opportunities/individual differences.

If any of this captures your interest, email sarah.buglass@ntu.ac.uk and/or lucy.justice@ntu.ac.uk.

Statistics and Text Anxiety



Statistics and Test Anxiety team



Caroline Ford



Lucy Justice



Richard Remedios

Statistics and Test Anxiety

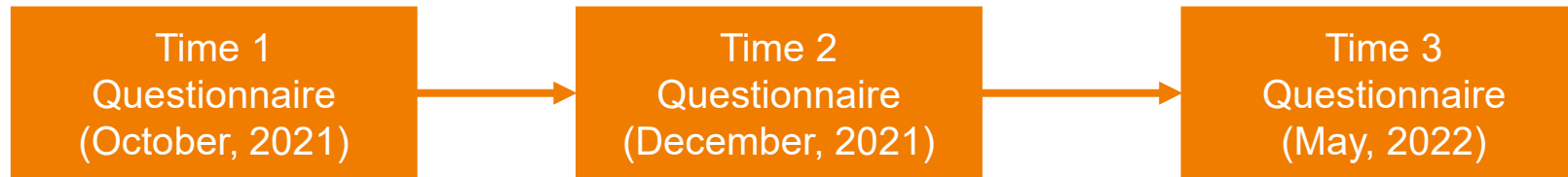
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The problem and research questions

- About 1000 students study year one statistics in Psychology
- We know they worry about statistics, a lot.
- But how does the experience of studying statistics at NTU Psychology change through a year-long module?
- Do students reduce or increase their anxiety?
- Are there differences in types of students in terms of their changes in anxiety?
- Are the changes in anxiety related to module grades?

The Statistic Anxiety Project: Design



Time 1 variables - Demographics

- Gender
- Age
- Ethnicity
- Postcode - Please write down the postcode of your address away from university i.e., your home address. If you are in any way worried this postcode will identify you specifically, please note that a typical 7-digit postcode e.g., MK13 0LA covers about 100 households or about 300-400 people. If you are uncomfortable giving your 6 or 7 digit postcode, we can work with just the first part of your postcode e.g., MK13.

Time 1 and 2 variables - Motivational

- Self-Efficacy (3 items) - *e.g., Compared with other students in this class I expect to do well.* 1= not at all true for me to 7=very true of me
- Class Anxiety (7 items) – *e.g., Doing the coursework for a statistics course* 1 = No anxiety and 5=strong anxiety
- Fear of asking for help (4 items) – On a scale of 1 to 5 where 1 = No anxiety and 5=strong anxiety, rate your level of anxiety in the following situations: *e.g., Going to ask my statistics teacher for individual help with material I am having difficulty understanding*
- Statistics worthiness for study (16 items) – *e.g., I lived this long without knowing statistics, why should I learn it now?* 1 = Strongly Disagree and 5=Strongly Agree.
- Maths Self-concept (7 items) - *e.g., I have not done maths for a long time. I know I will have problems getting through statistics* 1 = Strongly Disagree and 5=Strongly Agree.

Summary of results – the sample

N=170 completed phase I (> 20% response rate)

M=22 F=143, Non-binary=3

Mean age=19.2 (s.d.=3.2)

Ethnicity=112 white, non-white=58.

Student confidence

Negative relationship between all variables and self-efficacy, such that students who have **higher** self-efficacy have **lower** class anxiety, **lower** fear to ask for help, see statistics as **more** worthwhile and have **better** stats self-concept.



Potential projects

- Anything related to anxiety for ANY subject either in schools or higher education/
- It would be really good to run an anxiety-based project in Education, e.g., how does anxiety change over time and across which modules
- Maybe something specific to anxiety for the dissertation?
- Also interested in teacher anxiety and of course, parent anxiety.

If any of this captures your interest, email caroline.ford@ntu.ac.uk and/or lucy.justice@ntu.ac.uk.



How can EDMAL help you?



How we think we can help you

- You can set up your own Special Interest Group within EDMAL (same as EPP).
- We can help you with any theoretical information related to current theories of motivation.
- We will link you up with other researchers so you can pool your ideas.
- We will help you bid for SPUR, QR-related and Participant payment money.
- We will (try and) fund you to go to conferences to present your work or just as CPD.
- We will run any quantitative data analysis you need to do.
- We will be your research mentors.

Some aims we have

- NTU-funded studentship: <https://www.ntu.ac.uk/research/find-a-phd-opportunity/studentship-projects/next-slide-please-motivating-our-next-generation-of-data-analysts>. We failed at this attempt last year.
- Bidding for new staff who join Psychology to be allocated to our group.
- Getting staff to conferences for CPD.
- <https://www.bps.org.uk/events/psychology-education-section-annual-conference-2022>

Final thoughts



A natural fit

- Focus on learning and motivation in **educational contexts** brings together a natural collaboration between Education and Psychology.
- Scope to use a range of methods.
- Well placed to bid for grants and PhD students by having a coherent research group.
- Excellent opportunity to publish in the journals you would really like to be published in.
- Gives us a chance to invite some really cool speakers to our group.
- Gives us a chance to get to know one another and optimise the skill sets across the two departments.

A natural symbiosis

Educationalists and Psychologists have a lot in common. By pooling skill sets and contacts, we can create some very exciting research.

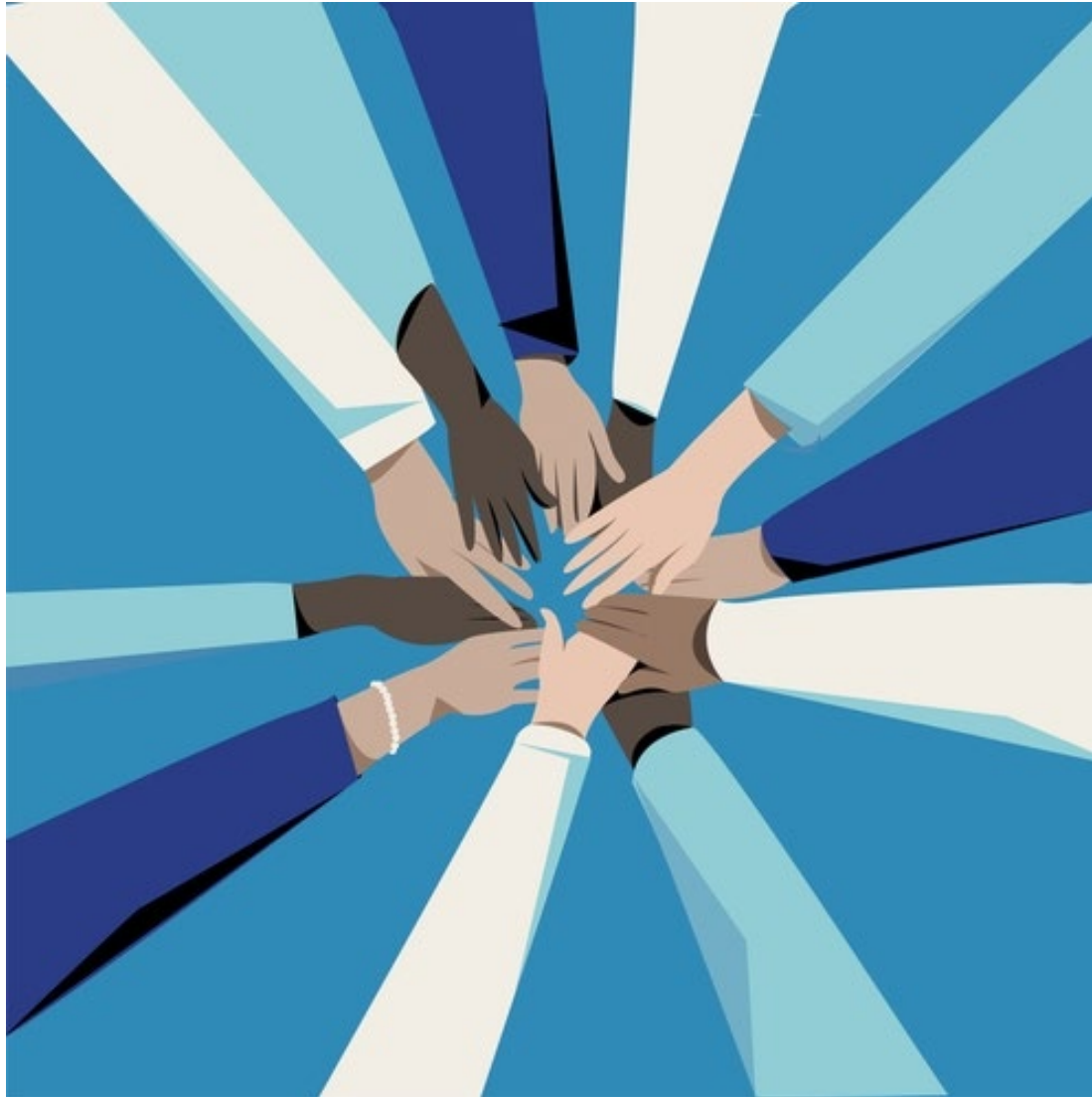


A place to grow and flourish

Whether you're an early career researcher or an established researcher, we hope the group will be a place you will be able to conduct your research and learn about learning and motivation.



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Thank you