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Exploring students' independent learning and its relationship to mindset and academic performance.

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A photograph of four students in a library setting. A young man in a grey t-shirt is smiling and looking towards a young woman with glasses who is looking at a laptop. Another young woman is partially visible in the foreground, and a fourth student is in the background. The background is filled with bookshelves.

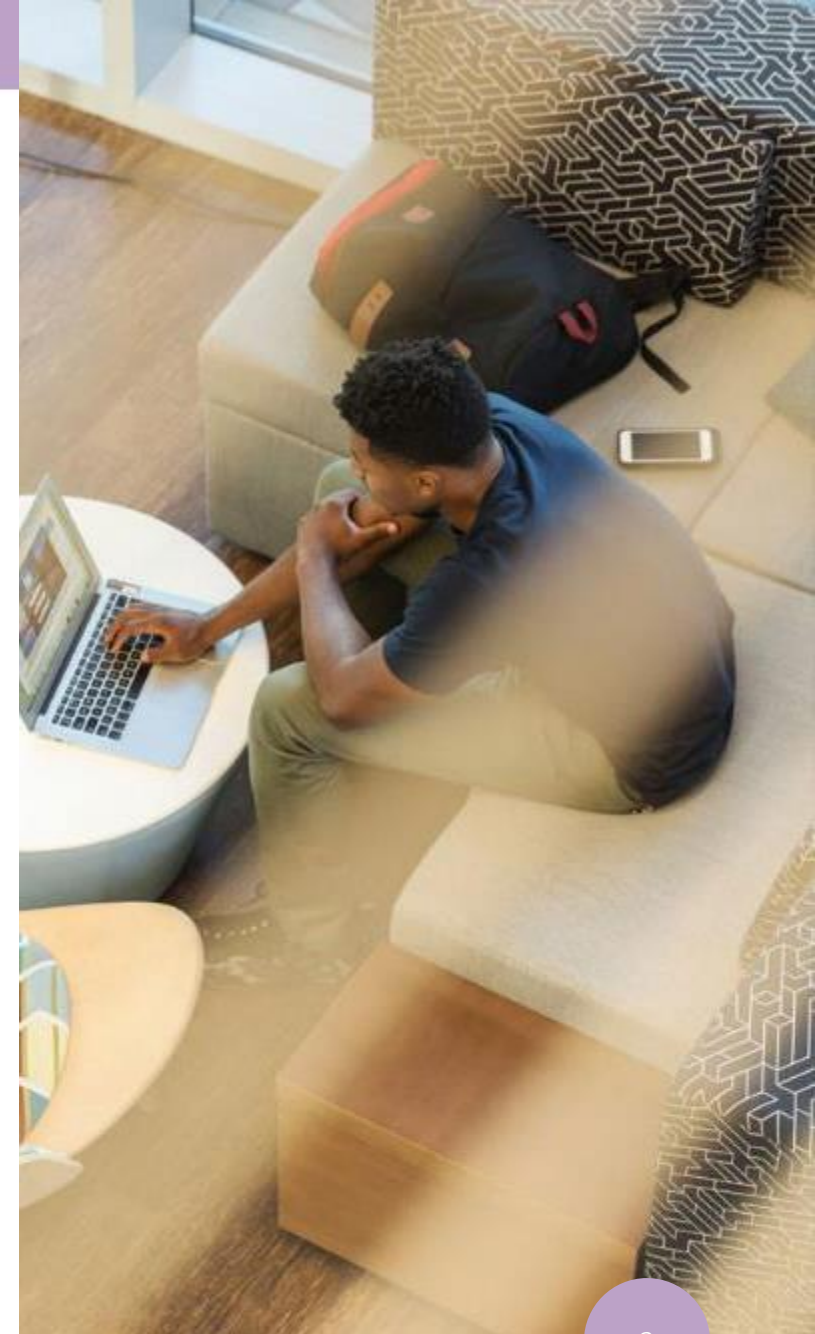
Exploring students' Independent Learning and its relationship to mindset and academic performance.

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Pauline Bremner & Dr Pam Johnson**

Background:

- Significant impact of independent learning (IL) on students' **academic achievement** (Difrancesca et al. 2016) and retention in higher education (Robbins et al. 2006).
- Motivational beliefs foster and support IL (Yan et al. 2013), which enhances **academic progression, retention, and student experience** (Pintrich, 2004).
- No simple definition of IL (McKendry & Boyd, 2012), as a result
 - **students fail to understand** what is expected of them
 - institutions and academic **staff fail to develop effective interventions** to enhance IL.

Aims: To explore students' levels, understanding and style of IL and its relationship to Mindset and academic performance.



Method



Design: An online Survey design was employed and distributed via JISC.



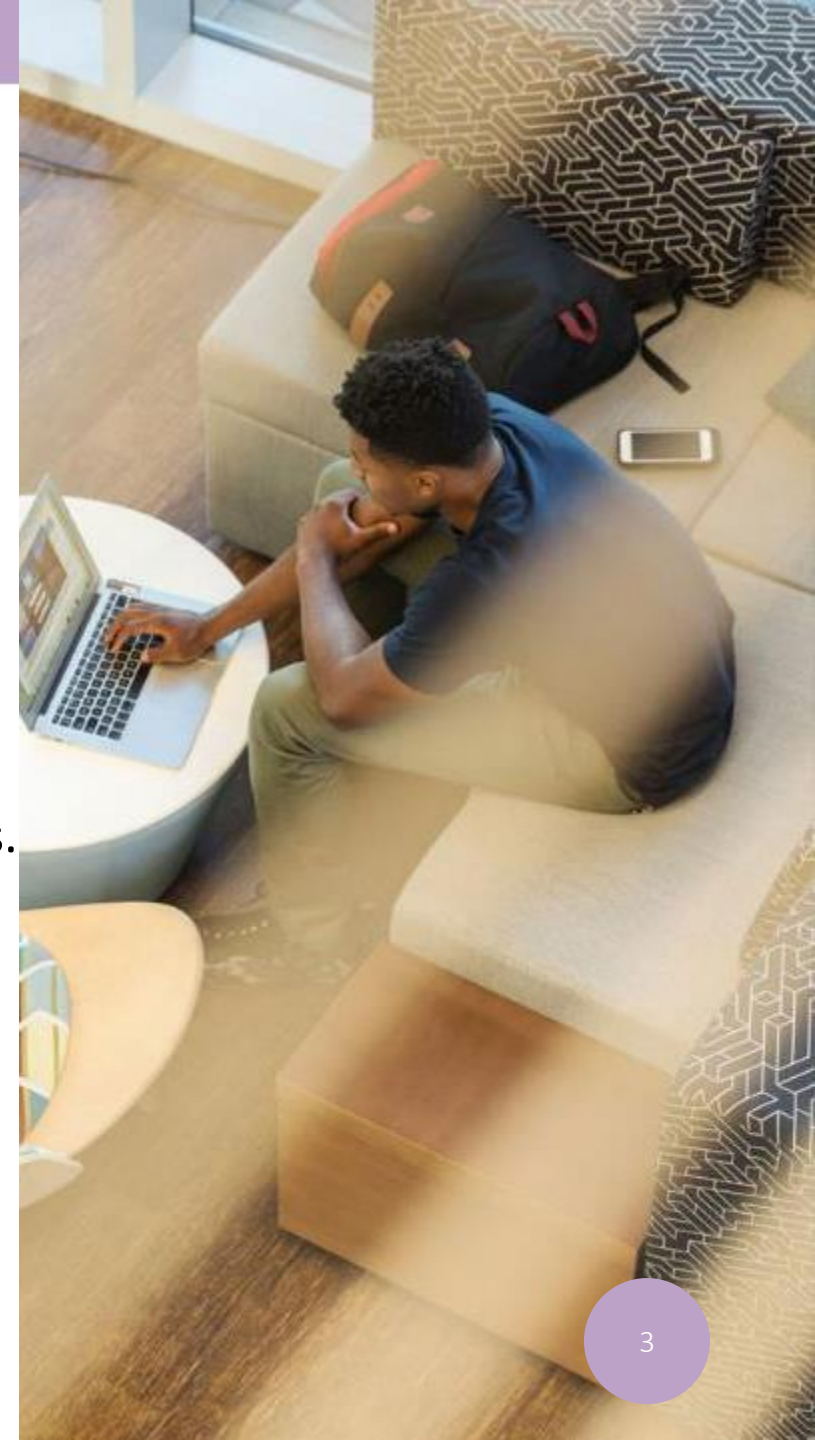
Sample: 123 University students completed questionnaire

- Gender: 43 males, 78 Females and 2 identifying as other.
- Age ranged from 17 to 55 (Mean 28.01, SD 9.77).
- Ethnicity: 102 identified as White, 1 Mixed Race, 4 Asian, 14 African, 1 Caribbean, and 1 as other.
- Level of Study: 74 undergraduate and 47 postgraduate students.



Materials:

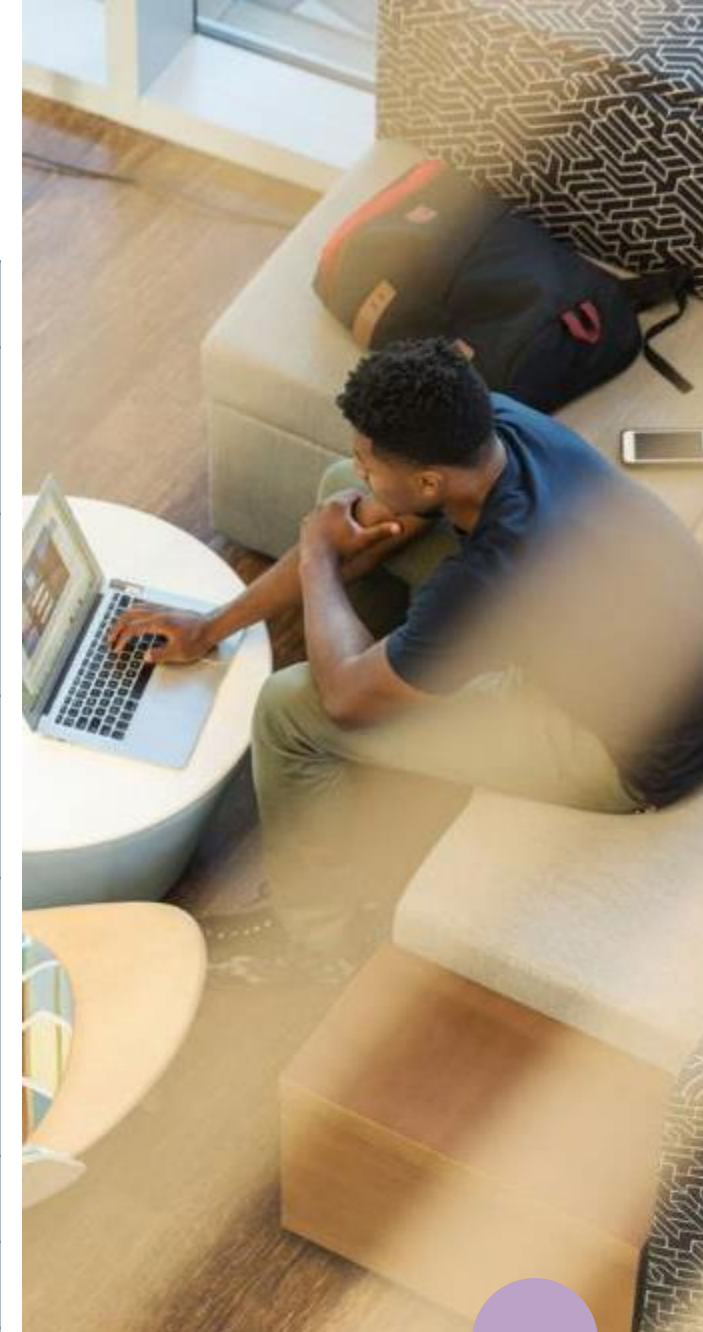
- Questions to measure understanding of Independent Learning
- 7 Scales from Motivated Strategies for Learning Questionnaire (MSLQ) (Duncan and McKeachie, 2005)
- 8 Item Dweck Intelligence scale to measure Growth Mindset (Dweck, 2000)
- Permission to access Academic Grades and VLE Engagement



Findings

Table 1 - Percentage of Students agreeing with statements on what an independent learner is.

	Yes	No
Takes ownership, control and a desire to develop own learning	98%	1.6%
Learns by their own actions and direct, regulate, and assess their own learning	89%	11%
Sets goals, make choices, and decisions about how to meet their learning needs	95%	5%
Takes responsibility for constructing and carrying out their own learning, monitor their progress towards achieving their learning goals	93%	7%
Reflects on, seeks out and actions feedback	89%	11%
Can learn on their own**	82%	18%
Can complete their assessments without any help**	36%	64%



FINDINGS: DO STUDENTS UNDERSTAND WHAT INDEPENDENT LEARNING IS?

Figure 1. NO. of Students Who Have Heard Of The Term Independent Learner

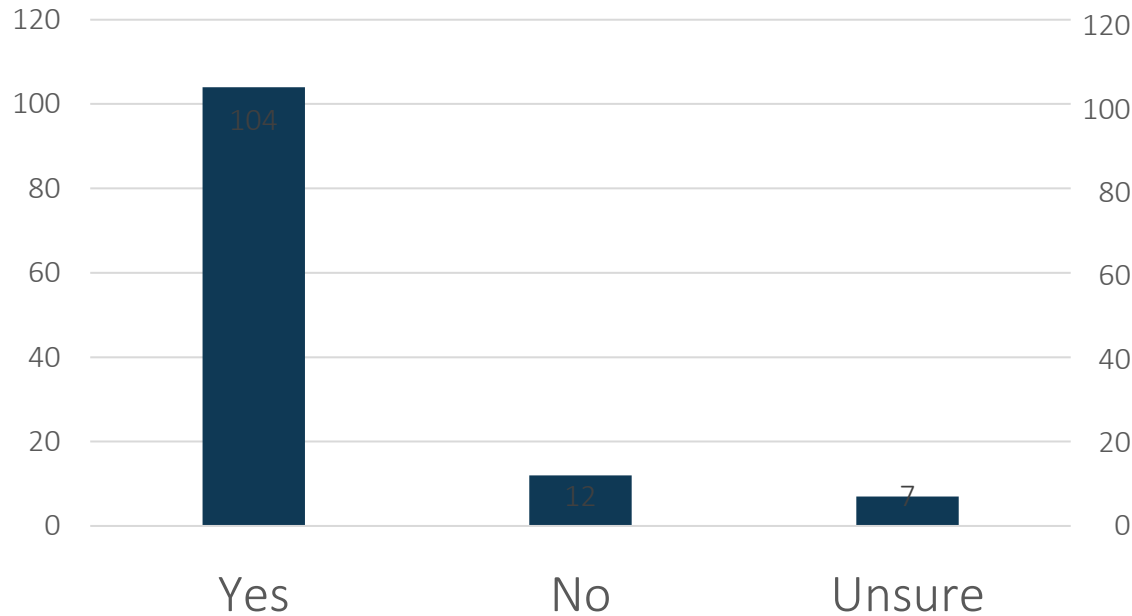
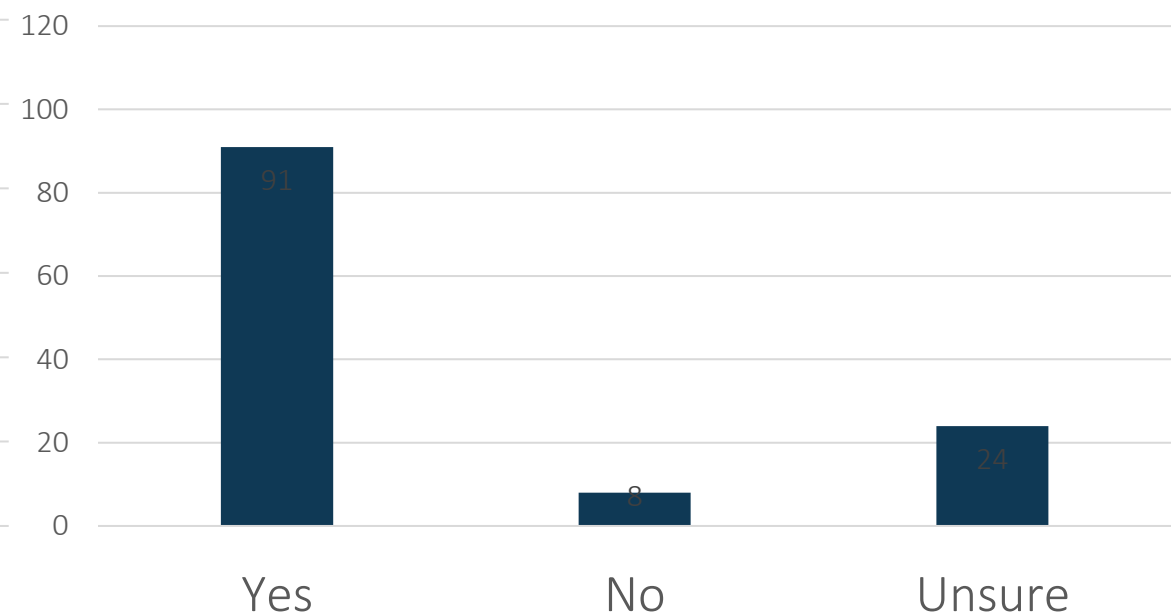


Figure 2 – No. of students who consider themselves to be an independent learner



FINDINGS: Relationships between Independent Learning, Moodle Engagement and Academic Performance

Table1 Mean MLS scores according to grade category

MLS Strategy	Grade C or above	Grade D or lower	t value	p-value one tailed
	Mean (SD)	Mean (SD)		
Hours of IL	8.95 (6.66)	7.75 (5.94)	0.60	0.27
Self Efficacy	5.64 (1.10)	5.58 (0.77)	0.20	0.42
Rehearsal	5.00 (1.44)	4.85 (1.53)	0.35	0.36
Elaboration	5.87 (1.04)	5.25 (1.15)	1.99	0.02*
Organisation	5.30 (1.24)	4.50 (1.62)	2.13	0.02*
Critical Thinking	5.36 (1.17)	4.96 (1.24)	1.10	0.14
Self Regulation	5.16 (0.92)	4.91 (0.74)	0.89	0.19
Time Management	5.35 (0.98)	5.19 (0.81)	0.53	0.30

FINDINGS: Relationships between Independent Learning, Moodle Engagement and Academic Performance

Table 2 Mean VLE interaction according to Grade Category

VLE Interaction	Grade C or above Mean (SD)	Grade D or lower Mean (SD)	t value	p value one tailed
Average Clicks	0.90 (0.64)	0.65 (0.22)	1.16	0.12
Average clicks as a percentage of cohort	55.06(36.14)	36.44 (19.23)*	1.89	0.03*
Average days as % of cohort	107.74 (36.48)	76.35 (35.42)*	2.95	0.002**
Days Clicked	35.41 (11.94)	24.66 (11.21)*	2.99	0.002**

FINDINGS: Moodle Engagement and Academic Performance

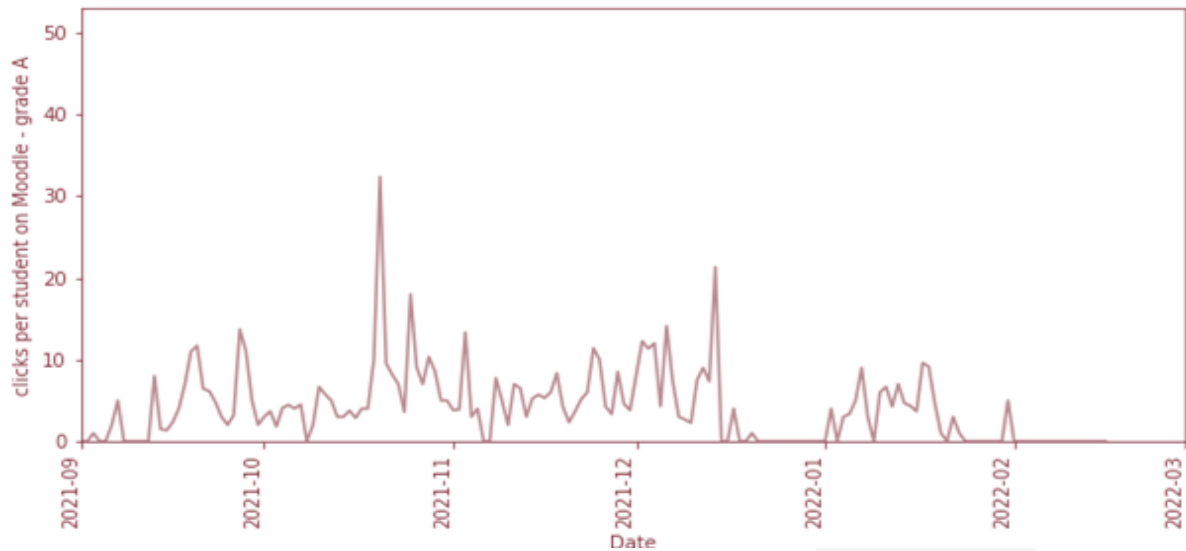


Figure 3 – Moodle engagement for A grade students

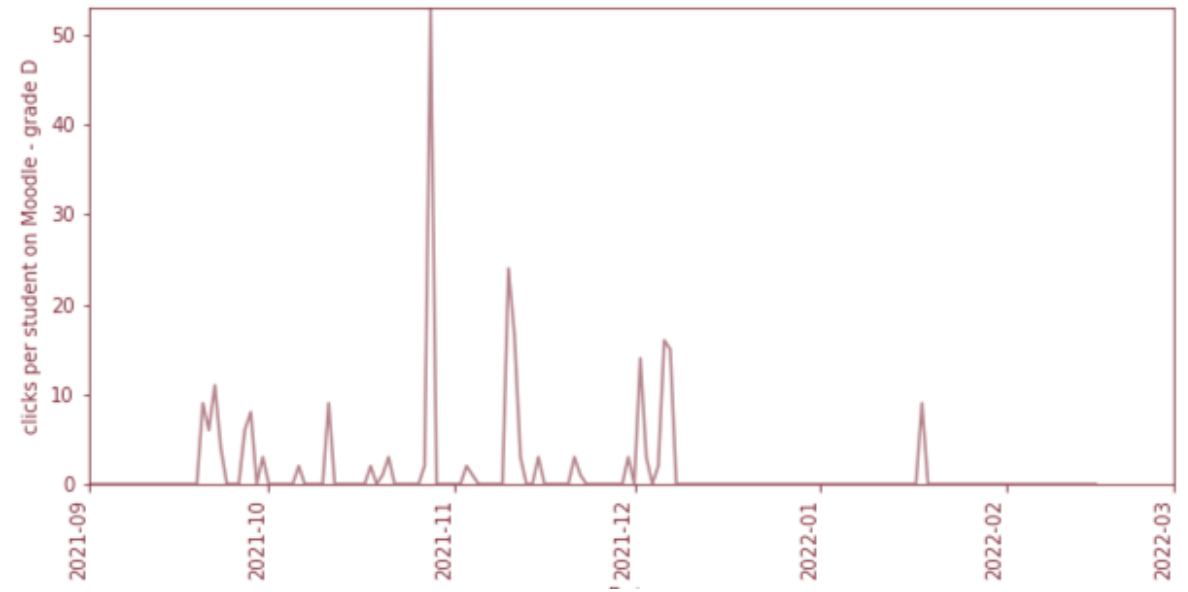


Figure 4 – Moodle engagement for D grade students

WHY IS THIS IMPORTANT?

- To improve academic progress and teaching success

Universities need to:

- enhance students' understanding of IL,
- employ an e-learning platform that is engaging,
- enhance the growth mindset and independent learning strategies of its learners.

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THANK YOU



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