

Enhancing our understanding of independent learning amongst RGU students.

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ENHANCING FOR IMPACT

RGU'S ANNUAL LEARNING AND TEACHING CONFERENCE

ENHANCING OUR UNDERSTANDING OF INDEPENDENT LEARNING AMONGST RGU STUDENTS.

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BACKGROUND & AIMS



Background:

- There is increasing interest in the role of independent learning (IL) in higher education (Thomas, 2015).
- Several studies demonstrate significant impact of IL on students' academic achievement (Difrancesca et al. 2016) and retention in higher education (Robbins et al. 2006).
- Research also suggests that motivational beliefs (such as growth mindset) can help to foster and support IL (Yan et al. 2013), which in turn enhances academic progression, retention, and student experience (Pintrich, 2004).
- However, there is no simple definition of IL (McKendry & Boyd, 2012), as a result
 - students may fail to understand what is expected of them as independent learners, whilst
 - 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 students from across University completed the 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 as Mixed Race, 4 as Asian, 14 as African, 1 as 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 Moodle Engagement

FINDINGS: DO STUDENTS UNDERSTAND WHAT INDEPENDENT LEARNING IS?

Figure 1. Number Of Students Who Have Heard Of The Term Independent Learner

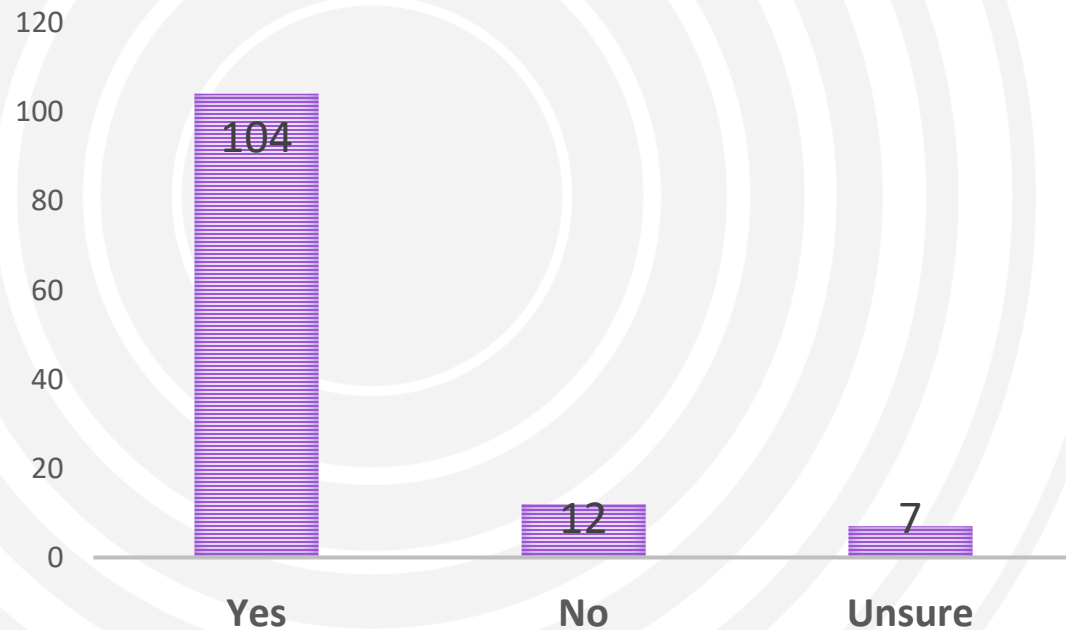
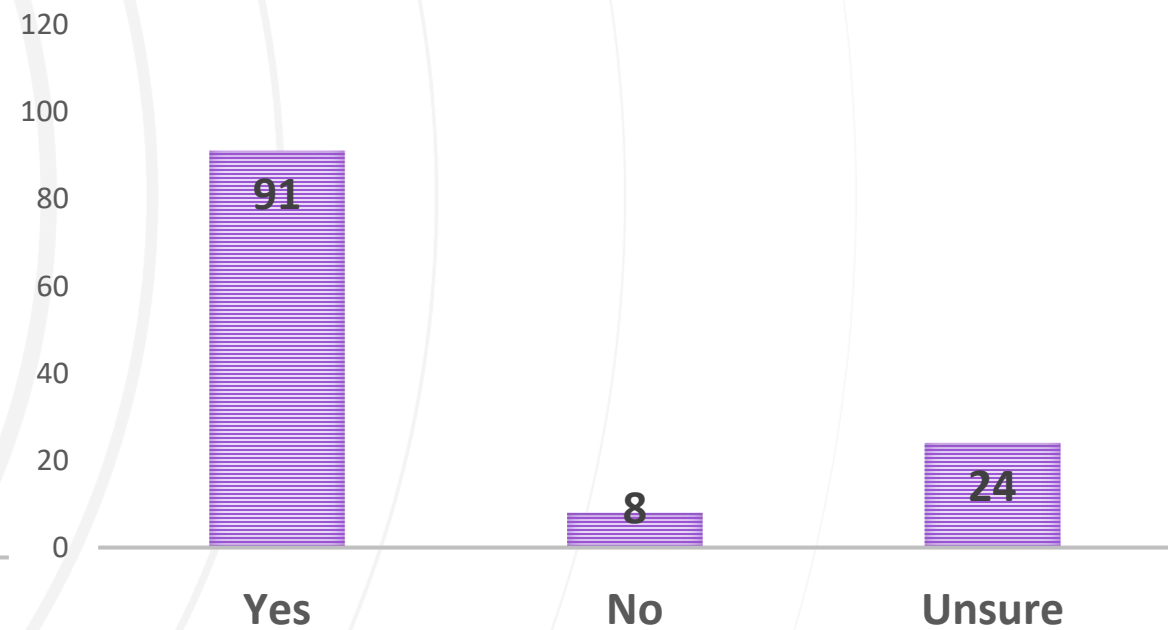


Figure 2 - Number of students who consider themselves to be an independent learner



FINDINGS: DO STUDENTS UNDERSTAND WHAT INDEPENDENT LEARNING IS?

Table 1 – Number (%) of Students agreeing with statements on what an independent learner is

	Yes	No
Takes ownership, control and a desire to develop their own learning	121 (98%)	2 (1.6%)
Learns by their own actions and direct, regulate, and assess their own learning	109 (89%)	14 (11%)
Sets goals, make choices, and decisions about how to meet their learning needs	117 (95%)	6 (5%)
Takes responsibility for constructing and carrying out their own learning, monitor their progress towards achieving their learning goals	114 (93%)	9 (7%)
Reflects on, seeks out and actions feedback	109 (89%)	14 (11%)
Can learn on their own**	101 (82%)	22 (18%)
Can complete their assessments without any help	44 (36%)	79 (64%)

FINDINGS: WHAT LEVEL AND TYPE OF INDEPENDENT LEARNING DO STUDENTS ENGAGE IN?

Table 2 – Mean (SD) score for Independent Learning Strategies

Independent Learning Strategy	Mean	SD
Hours of IL per week per module	11.21	10.78
Self Efficacy Score	4.98	1.09
Rehearsal Score	4.17	1.38
Elaboration Score	5.39	1.14
Organisation Score	4.89	1.22
Critical Thinking Score	4.75	1.29
Self Regulation Score	4.57	.95
Time Management Score	5.25	1.06

FINDINGS: Relationship between level and type of Independent learning with Mindset

Level of IL significantly related to the type of IL employed

- Positive relationship between the level of independent learning and scores on:
 - Rehearsal (r_s (N=122) = 0.34, $p < 0.01$),
 - Organisation (r_s (N=122) = 0.25, $p < 0.01$), and
 - Self Regulation (r_s (N=122) = 0.19, $p < 0.05$).

The type of IL employed is significantly related to Mindset

- Positive relationship between Mindset and scores on:
 - Self Efficacy (r_s (N=122) = 0.23, $p < 0.05$),
 - Rehearsal (r_s (N=122) = 0.19, $p < 0.05$),
 - Elaboration (r_s (N=122) = 0.23, $p < 0.05$), and
 - Organisation (r_s (N=122) = 0.19, $p < 0.05$).



FINDINGS: Relationship between level and type of Independent learning with Age, Gender and Level of Study

- **Level of Study:** Postgraduate students scored significantly higher on the measures of Elaboration ($t(119) = 2.18, p < 0.05$) and Critical Thinking ($t(119) = 2.35, p < 0.05$) than Undergraduates
- **Gender:** Females scored significantly higher on Time Management than males ($F(2, 120) = 3.72, p < 0.05$).
- **Age:** small and positive relationship between Age and:
 - Self Efficacy ($r_s(N=122) = 0.27, p < 0.01$),
 - Elaboration ($r_s(N=122) = 0.31, p < 0.01$),
 - Critical Thinking ($r_s(N=122) = 0.27, p < 0.01$), and
 - Self Regulation ($r_s(N=122) = 0.23, p < 0.01$).

Figure 3- Mean Elaboration And Critical Thinking Scores

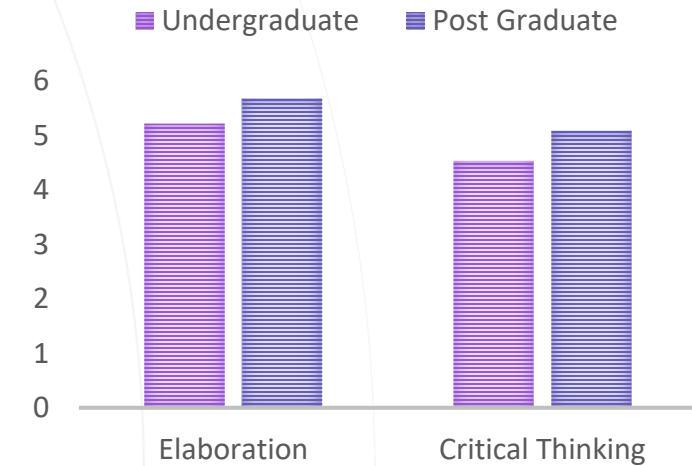
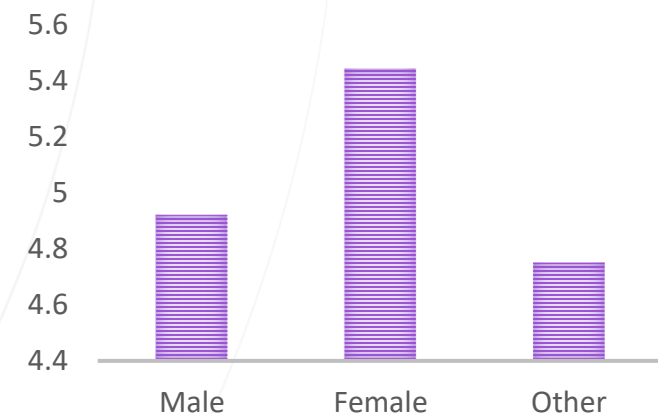


Figure 4 – Mean time management score



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

The level of Independent learning is significantly related to the Average Grade

- Significant relationship between Hours of Independent learning and average grade ($r = 0.45$, $N=22$, $p < 0.05$).
- Significant differences between those with an average grade A and those with an average grade of B for Hours of Independent learning ($t(19) = 2.24$, $p < 0.05$) and Rehearsal ($t(19) = 2.20$, $p < 0.05$).

Moodle Engagement is significantly different amongst those attaining Grades A-B and those attaining Grades C-D.

- There was a significant difference between those attaining A -B grades and those attaining C-D grades for:
 - Total Moodle Interactions ($F(2, 167)=6.40$, $p < 0.01$, with a medium effect size; eta squared = 0.08),
 - Course Work Interactions ($F(2, 167)=5.99$, $p < 0.01$, with a medium effect size; eta squared = 0.09),
 - Study Area interactions ($F(2, 167)=4.21$, $p < 0.05$, with a medium effect size; eta squared = 0.06) and
 - Net Interactions ($F(2, 167)=5.25$, $p < 0.01$, with a medium effect size; eta squared = 0.07).

FINDINGS: Moodle Engagement and Academic Performance

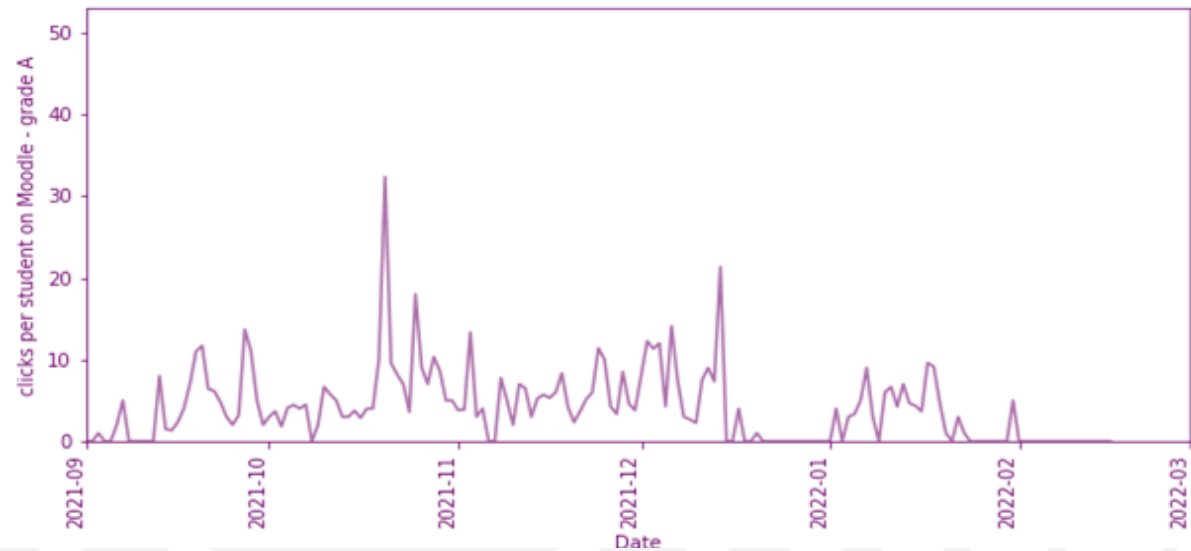


Figure 5 – Moodle engagement for A grade students

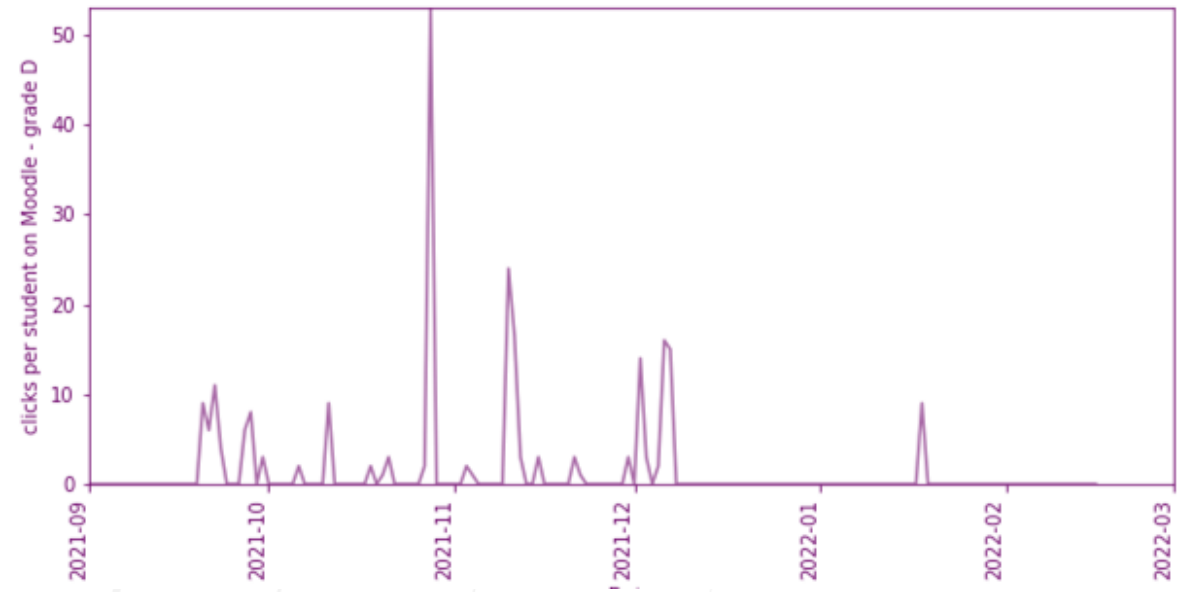


Figure 6 – Moodle engagement for D grade students

WHY IS THIS IMPORTANT?



- In order to improve academic progress and teaching success RGU needs 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.
- Such strategies, however, need to be adapted depending on the age, gender and level of the student cohort

A word cloud in the top right corner featuring various terms related to lifelong learning. The words are in different sizes and orientations, with 'lifelong-learning' being the largest and most prominent. Other visible words include 'opportunity', 'independent', 'informal-learning', 'self-motivated', 'evolving', 'practise', 'limitless', 'changing', 'technology', 'creativity', 'future', 'fluid', 'fast-paced', 'inquiry', 'network', 'extend', 'beyond', 'enthusiasm', 'adapt', 'digital', and 'attention'.

lifelong-learning
opportunity independent
informal-learning self-motivated evolving practise limitless
changing technology creativity future
fluid fast-paced inquiry network
extend beyond enthusiasm adapt digital attention

THANK YOU FOR LISTENING

ANY QUESTIONS?

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