


**Embedding information literacy
skills in the psychology curriculum:
supporting students in their
transition to independent
researchers**

Jason Bohan

Niamh Friel

Larissa Szymanek

Heather Worlledge-Andrew



“Some of the tutorials are really helpful, like the library one, because I didn’t know how to take a book out at the start” (Student 1)

Student transition to independence

- Universities require students to become independent learners.
- Independence is a key graduate attribute demonstrating transferable skills, e.g. learning through effective literature searching and communication
- Independence, or Learner Autonomy, can be thought of as being able to take responsibility for own learning, maintain motivation, and effective planning (Macaskill & Taylor, 2010)
- Independence results in greater self-efficacy which means that students are more likely to apply skills/knowledge to new situations (Turner, 2014)
- But, transition from a supported school/college environment to independent learning is difficult for many students (Beaumont, O'Doherty, & Shannon, 2014)

Barriers to independence

- Mismatch between student expectations and experiences (Rowley, Hartley, & Larkin, 2008; Winstone & Bretton, 2013)
 - Expect support and guidance, but experience need to be independent
 - Students say they want to be independent learners but are slow to develop appropriate skills
- Skills training courses are available but the uptake is often low & only then by the ‘better’ students
 - May be because they don’t realise the importance of skills; not used to asking; see it as a mark of failure
- Skills training is best embedded within a curriculum to benefit all students (Kitching & Hulme, 2013; Wingate, 2006)

This study

- The project aim was to develop student's Psychological Literacy:
 - Knowledge of psychology and how this applies to everyday life
 - Research methods skills in literature searching, summarizing and communication of findings to others
 - Group work skills
- The project ran for 3 tutorials over 6 weeks

Tutorial 1

- Within small groups (4-5 students), students chose a topic to investigate
 - e.g. *What can psychological research into how we learn tell us about how to change the behaviour of a naughty toddler?*
- Class discussion on appropriate sources of information
 - e.g. book vs. journal vs. webpages
 - Which is the most recent/reliable source
- Homework: Sign up for the Library Tree or other effective way for the to group share appropriate sources of information on their topic

Tutorial 2 – Library Skills

- Tutors delivered a mini-lecture about library resources
- Students worked in groups (completing a worksheet)
 - searching the library website for books and journals
 - using databases (*Web of Science*) to find topic relevant information



Tutorial 3 – Group Presentation

- Students delivered short presentations about their topic
 - 10 minutes talks (~2min each student)
 - 5% of total course grade

Data Collection

- Data collection took place at 2 time points during psychology tutorials 1 and 3, and in focus groups.
- Questionnaires & Focus Groups
- Responses of **167 Level 1 psychology students** were analysed
- Only questionnaire data from students who participated at both time points during the tutorials were included

Autonomy Questionnaire

- **12 statements**
 - *“I enjoy finding information about new topics on my own” (item 1)*
 - *“I take responsibility for my learning experiences” (item 9)*
- **five possible responses to each statement ranging from “not at all like me” (1) to “very like me” (5)**

(Macaskill and Taylor, 2010)

Self-efficacy Questionnaire

- **Rate confidence of 15 tasks from 0 (not confident at all) to 100 (completely confident)**
 - *“Use the library resources (e.g. quick search, books and journals) to gather the information needed” (item 5)*
 - *“Evaluate the quality of the information collected” (item 10)*

(adapted from Forrester et. al., 2004)

Experience Questions

- **8 questions about the experience students had during the last 3 tutorial**
 - *“How valuable do you feel the information literacy tutorial was for developing your learning skills? (item 5)*
 - *“Do you think that what you learned in the information literacy tutorial will help you research for your other (non-psychology) studies?” (item 8)*
- **5 possible responses ranging from 1 to 5**

Tutorial 1 + Data collection 1

Week beginning 29/9/14

- Autonomy Questionnaire
- Self-efficacy Questionnaire

Tutorial 2, Library Skills

Week beginning 20/10/14

Tutorial 3 (group project) + Data collection 2

Week beginning 10/11/14

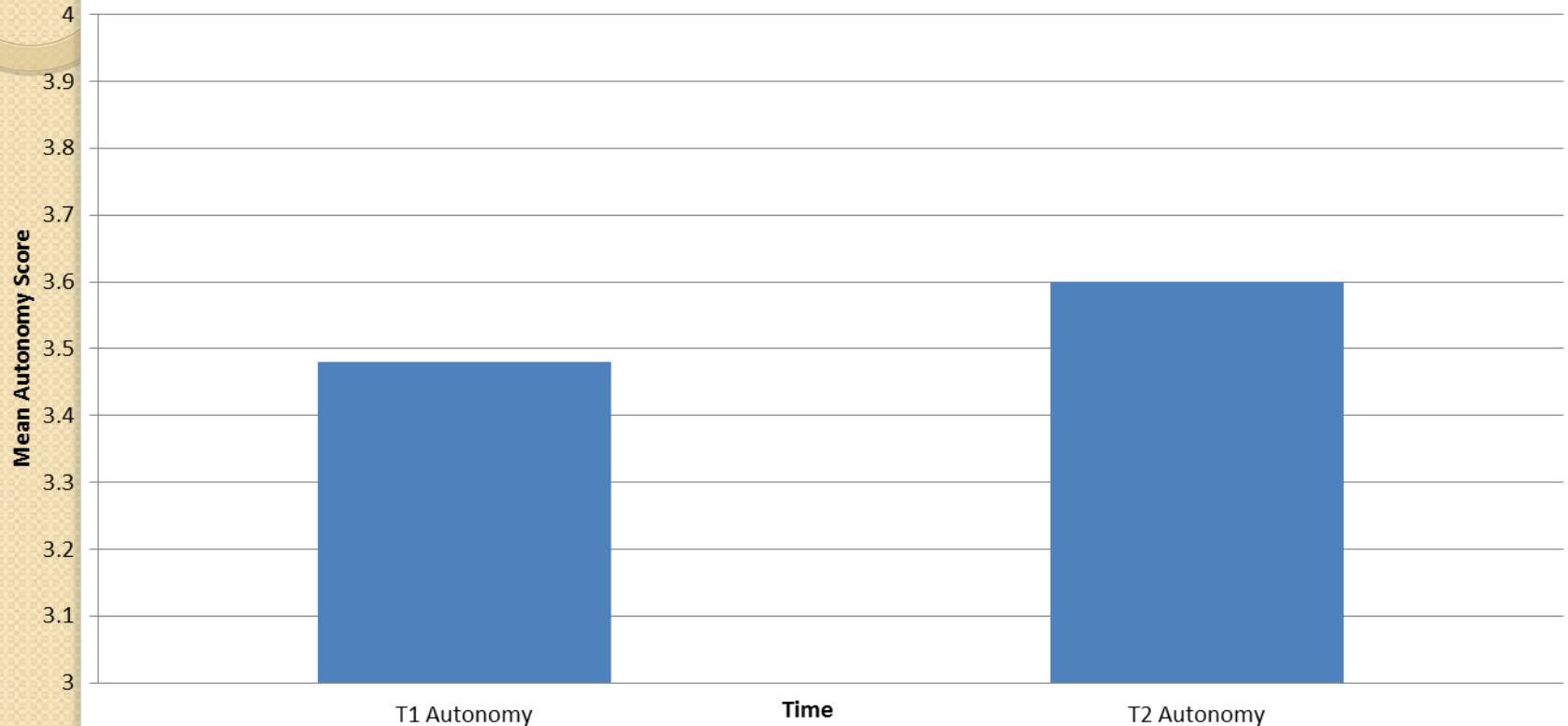
- Autonomy Questionnaire
- Self-efficacy Questionnaire
- Experience Questionnaire

Focus Groups

Week beginning 9/3/15

Quantitative: Changes in Autonomy over time

Graph of Change in Autonomy over time



There was a significant difference in the time 1 autonomy scores (M= 3.49, SD=.42) and the time 2 autonomy score (M=3.60, SD=.44); $t(166)=-4.65, p < 0.001$

Qualitative:

Changes in Autonomy over time

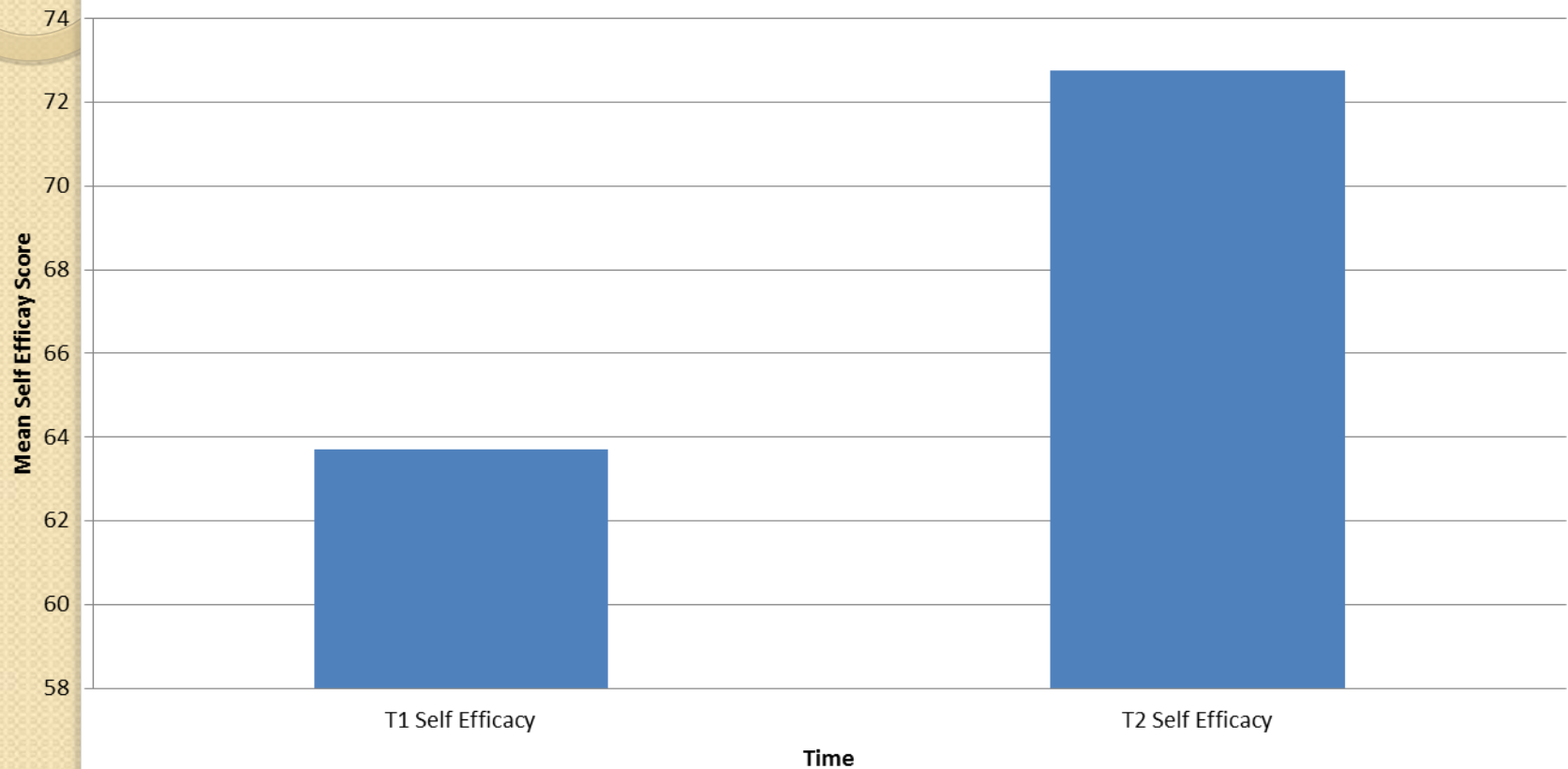
“I now quite like the whole independent learning thing. I think I am learning quite well that way” (Student 3)

“I found out how to look for journals and now I am able to do it on my own” (Student 1)

*“I have definitely used the skills again”
(Student 2)*

Quantitative: Changes in Self Efficacy over time

Graph of Change in Self-Efficacy over time



There was a significant difference in the time 1 self efficacy scores ($M=63.98$, $SD=13.81$) and the time 2 self efficacy scores ($M=72.76$, $SD=11.89$); $t(165)=-10.11$, $p < 0.001$

Qualitative:

Changes in self efficacy over time

“I really liked that tutorial because I was always dead intimidated by the library. Like I had no idea how anything worked. I didn’t know how to look for journals and I was just going on Google Scholar. So that taught me how to login and look for things and that really helped me. It made me more confident” (Student 1)

“I am quite confident now. Before I was quite intimidated by logging onto the library or Google Scholar and looking for sources and things but now I can go and refine everything and make sure I know what I am doing” (Student 3)

Experience Questions

Question	Mean	S.D
How satisfied were you with the experience of working on a group presentation overall?	3.96	.898
How satisfied were you that the information literacy provided you with the correct amount of support for finding information for your project and your essay?	3.79	.768
How enjoyable did you find the experience of working on a group presentation?	3.85	1.010
How valuable was the information literacy tutorial for developing your critical thinking skills?	3.40	.858
How valuable do you feel the information literacy tutorial was for developing your learning skills?	3.44	.839
How valuable was information literacy tutorial for developing your confidence?	3.25	.892
Do you think that what you learned in your information literacy tutorial will help you research your psychology coursework in psychology IB?	3.78	.857
Do you think that what you learned in the information literacy tutorial will help you research for your other (non-psychology) studies?	3.80	.906

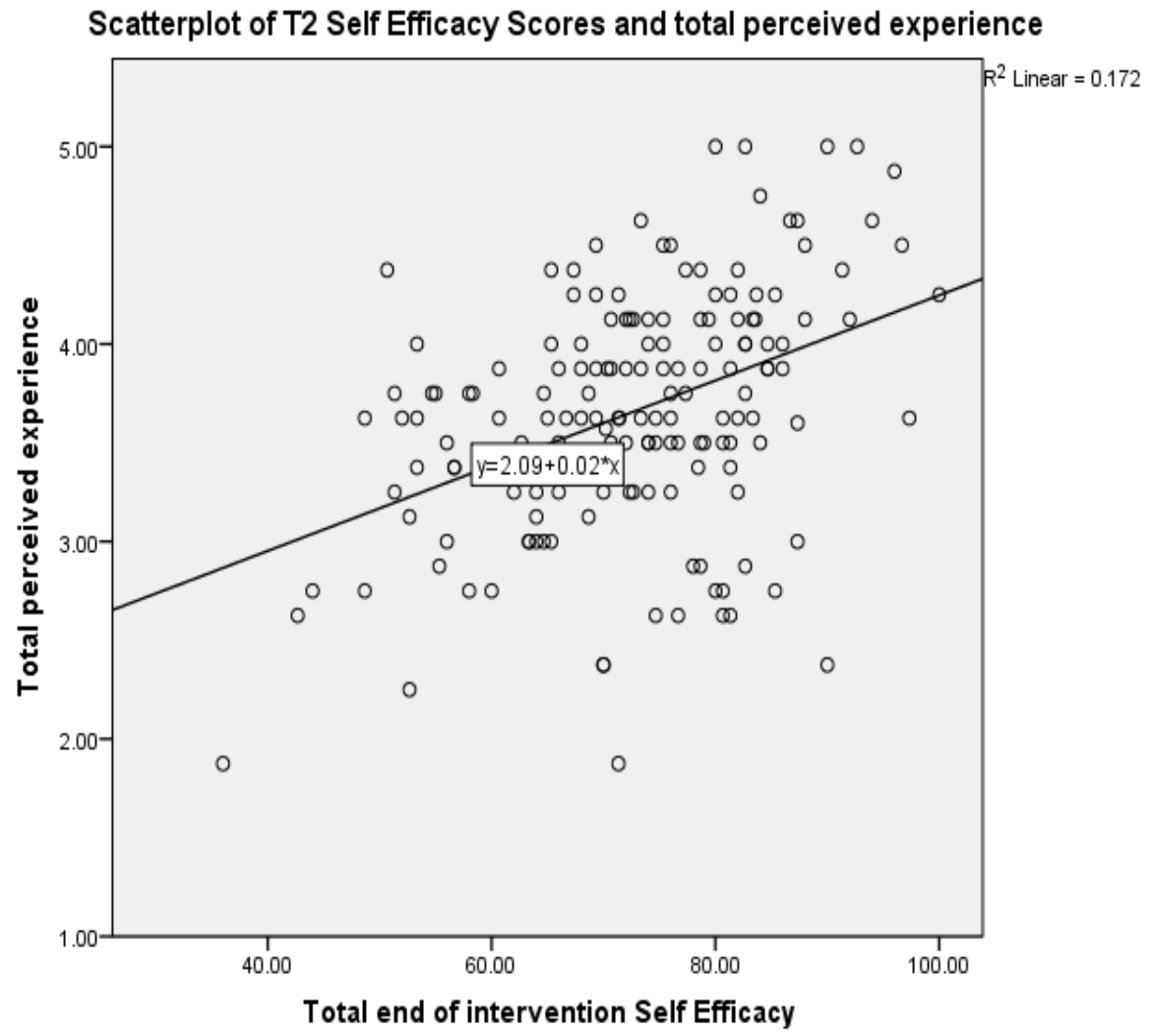
Correlating Autonomy and Perceived Experience

$r(165) = .453, p < .0001$



Correlating Self Efficacy and Perceived Experience

$r(165) = .414, p < .0001$



Conclusions

- Students need help in developing their information literacy skills
- Embedding skills training in the curriculum engages all students
- We saw a significant increase in Autonomy and Self Efficacy over a relatively short time period
- Qualitative data revealed that changes in Autonomy and Self Efficacy was attributed to the intervention
- Experience data reveals that the skills are transferable outside of the tutorial activity and would be of benefit to a variety of different disciplines

Improvements in learning

- *“I pick and change my search strategy depending on what I am looking for and how broad it is [...] for example if it is specific, like for my lab report when I am looking at the impact of the Stoop Effect on something I would go more article first to get pointers to journals. But if I was looking up depression in general there is going to be more on that, so it depends what I am looking for.”*
(Student 2)