The Learning Gain® Tool: A Way to Measure the Impact of PIPS

**Background**

The Research Toolkit Learning Gain tool® is an interactive resource capable of assessing and measuring impact of training interventions. This has been developed with the White Rose DTP to evaluate the skill development of students resulting from their participation in the Professional Internships for PhD Students (PIPS) scheme.

This includes a number of competencies relating to commercial awareness, as we know that this is an area that employers often say is lacking in PhD graduates.

We try to involve the host organisations in the process by sharing the same set of questions we ask our students. This gives the host organisation the opportunity to optimise their placement to ensure the optimal development of our students (for example one host enhanced the training experience so that the student gained a greater understanding of funding and finance within their organisation).

**How it Works**

The Learning Gain® Tool seeks responses to statements from each PhD student. Responses are given on a scale from 1 to 10 (where 1 equals strongly disagree or this very rarely happens/is the case; 10 equal strongly agree or this always happens/is the case).

Responses are produced as radar charts to provide a visual and accessible way of displaying individual and group data.

Statements are themed into areas that have been devised and agreed by Programme Managers and academics from the White Rose partner Universities.

**What our students say**

“It was enlightening to receive my results from the online skills assessment, as it provided some kind of proof that I had improved my skills set in many areas, and this has also given me more confidence.”

“In doing the review it highlighted to me just how much my PIPS raised my commercial awareness and understanding of infrastructure within a company, as well as improving my oral and written communication skills. The review process highlighted to me, before I started the position, areas that were weaker and that I could focus on improving during my PIPS. In terms of CV and interview for future employment, seeing my learning gain in various areas made it clearer where I had improved and how I have developed them with examples from the PIPS™.”

“It is quite easy to forget a lot about the PIPS in the frantic end stages of the PhD. Now that I am trying to pool everything together to think about my next steps, it’s good to have something concrete to recall the skills I felt the PIPS helped with”.

“It’s definitely a useful tool for reflecting on which areas you’ve improved upon during the placement, but it’s also interesting to look at areas that haven’t improved. It highlights that these are areas to focus on and encourages you to think about new ways of doing so. To get the most out of these reports, I think it’s worth revisiting them every few months to track your progress and to set new skill-learning goals”.

“It was interesting to use the tool, since we do not use this kind of assessment otherwise. The tool emphasised to me that it is very important to find a supportive and encouraging working environment that allows me to develop new skills - I must give credit to my PIPS host organisation for being good at this”.

“I think a lot of my “gains” came from doing something quite different to my research. On top of this, there is the task of fitting into a new group and entrepreneurial purposes and seek to enhance my reputation and esteem.”

“I realise what an invaluable tool it is for enhancing my self-awareness of the transferable skills gained from my internship. In particular I was surprised to see how much my internship had enhanced my professional skills (personal effectiveness) and upon reflection, I have taken a more professional approach to my research after my PIPs experience. I will use the results of the Learning Gain Tool in development of my CV and in future job applications.”

“Overall I feel that my self-awareness of my abilities, confidence and overall motivation to work has been improved by the use of the Online Learning Tool and it is an effective way of self-assessing the PIPS experience”.

**Results from 48 PIPS students who completed the assessment before and after their placement**

- **Personal Effectiveness**
  - Q5 - I actively network for professional and career purposes and seek to enhance my reputation and esteem. 36% ▲ AFTER PIPS

- **Engagement and Influence**
  - Q8 - I contribute to increasing public awareness, engagement and understanding of science and associated impacts. 40% ▲ AFTER PIPS

- **Commercial Awareness and Enterprise**
  - Q2 - I am enterprising and entrepreneurial. 40% ▲ AFTER PIPS

- **Skills and Employability**
  - Q5 - I am able to demonstrate my skills in the workplace. 26% ▲ AFTER PIPS

**Access to data: respondents**

Each PhD student is requested to complete their responses prior to, or at the beginning of, their PIPS placement, and then at the end of their placement.

From this the learner, as well Programme Managers, can observe movements in responses (or learning gain). Responses are produced as radar charts to provide a visual and accessible way of displaying individual and grouped data.

**Access to data: programme managers**

At a programme management level, user data can be clustered by institution/group and changes or developments over time can be observed.

Where movements between review periods are most variable or dispersed they are highlighted green.