

MAXIMIZING WIL OPPORTUNITIES FOR SCIENCE STUDENTS

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Problem

According to national data, science graduates are amongst those who find it most difficult to find a job within the first few months after graduation (GCA, 2014). A recent report commissioned by the Office of the Chief Scientist highlights that science students have very few opportunities in integrating theory and practice through a workplace experience (Evans, 2015), and hence develop skills that will make them better equipped to find employment (Orrell, 2011). One of the major difficulties identified was the lack of willing industry partners to provide such experiences.

Plan

Most universities have strong connections with local schools, particularly via their teacher education programs. The Science Faculty, in collaboration with the Education Faculty, built on these relationships to view them as industry partners to provide workplace experiences to science students. A School Placement unit was introduced in 2015 for BSc students. The unit is delivered in the framework of work integrated learning. Students work in groups to research, develop, manage and deliver (teach) a science module that matches the learning outcomes specified to them by their client (supervising teacher).

Action

Following the first unit offering, focus group interviews were conducted to gauge student perceptions on how much the unit helped them develop employability skills, and reflect about their gaps and plans for addressing these. Students appreciated the opportunity to be placed in an authentic context where they had to plan for and deliver a science module. Students identified several skills they had to apply, and found challenging: communicating with a variety of audiences (supervising teachers, school children, unit coordinator), ability to think on their feet when things did not go according to plans, communicating science to people who had not the same level of understanding as themselves, working in teams, and working independently with very little guidance. Students acknowledged that these skills are present in the science curriculum, but their assessment was not authentic enough and so they put the minimum effort required to achieve the grades they aimed for.

The interviews also explored what motivated students to enroll in the unit, and the influence the unit had in their career planning. The unit attracted (a) students who wanted to get a taste of teaching as a career, (b) students who already decided on a teaching career and wanted to validate whether to choose secondary or primary teaching, (c) students who had an interest in science communication, and (d) students who were still exploring their career pathways and wanted to have workplace experiences to include in their CV.

Reflection

The interviews confirmed that a school placement is an attractive WIL opportunity for a significant proportion of science students. The unit also resulted in several spin offs: the strengthening of the Science Faculty relationships with the Education Faculty and with the local schools, professional development of participating teachers in schools, and providing a pathway to develop much needed engaging science teachers.

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