

Improve Student Employability with a University IT Agency and Work Related Learning modules

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Abstract:

This paper presents an initiative to use an internal IT agency to guarantee all students in a range of computing programmes with at least one compulsory work opportunity for their work related learning module. The aim is to improve our student's employability on these programmes. Our findings in the past 3 years have indicated that this initiative has helped to steadily improve our Computing student's employability awareness and their employment opportunities. Further plans are being made to expand this model to other programmes.

1. The problem

There have been reports of IT skills shortages in UK industry, yet again computing graduates are reported to have the worst unemployment rates of any subject at 14% [CPHC, 2012]. Academic qualification is no longer enough secure jobs for graduates. In 2012, a survey of employers carried out by CBI revealed that 81% of employers valued employability skills as the most important factor when recruiting graduates [CBI, 2012]. A more recent report from CBI [CBI, 2014] suggested that nearly half of employers are concerned with the quality (48%) and quantity (46%) of STEM graduates, and this appears to arise from a perception about a lack of general work experience. Nearly two thirds cite relevant work experience as one of the most important factors when recruiting graduates.

What is employability? Yorke has defined employability as the combination of qualifications, knowledge, skills and personal attributes, which enable graduates to obtain a job and to succeed in their chosen occupations, with benefits for themselves and for the whole labour market, community and economy [Yorke, 2006].

A number of works have been conducted to address this issue. For instance research has been carried out on how alumni can be used as a key resource to improve student employability awareness and to add value to students' qualifications. [Jing et al., 2011] So that all students can improve on their employability, there is a need to look at the curriculum design; employability should be one of the main targets of universities [Knight and Yorke, 2004] and one of the objectives of curriculum design.

3. Our solution

As part of the curriculum review in 2012, a work related learning framework has been designed to build work experience and employability into our curriculum. A number of initiatives have been carried out to create work opportunities for students in these work related learning modules.

3.1 Work Related Learning module

What is work related learning (WRL)? The Quality and Curriculum Authority [QCA, 2003] defines work-related learning as:

"...planned activities that use the context of work to develop knowledge, skills and understanding useful in work, including learning through the experience of work, learning about work and working practices, and learning the skills for work."

A framework as shown in figure 1 has been designed to manage this initiative. A number of staff roles have been defined in this framework to guide students through this framework. The module leaders take academic responsibility for the module and ensure that learning outcomes are achieved by students. WRL coordinators are subject experts in each course cluster in the school and act as the subject contact point for students in the work related learning module. Each student is also assigned an academic who is tasked with running the weekly supervision sessions.

One of the key challenges is to secure work opportunities for WRL students. The WRL learning manager as shown in Figure 1 is to collect all work opportunities. (S)he will oversee the work opportunities – WOWbiz (see section 3.3), the WOW agency (see section 3.2) or other external work placement. Students will apply for these positions, then get selected and assigned with these work opportunities. All students will be guaranteed a position.

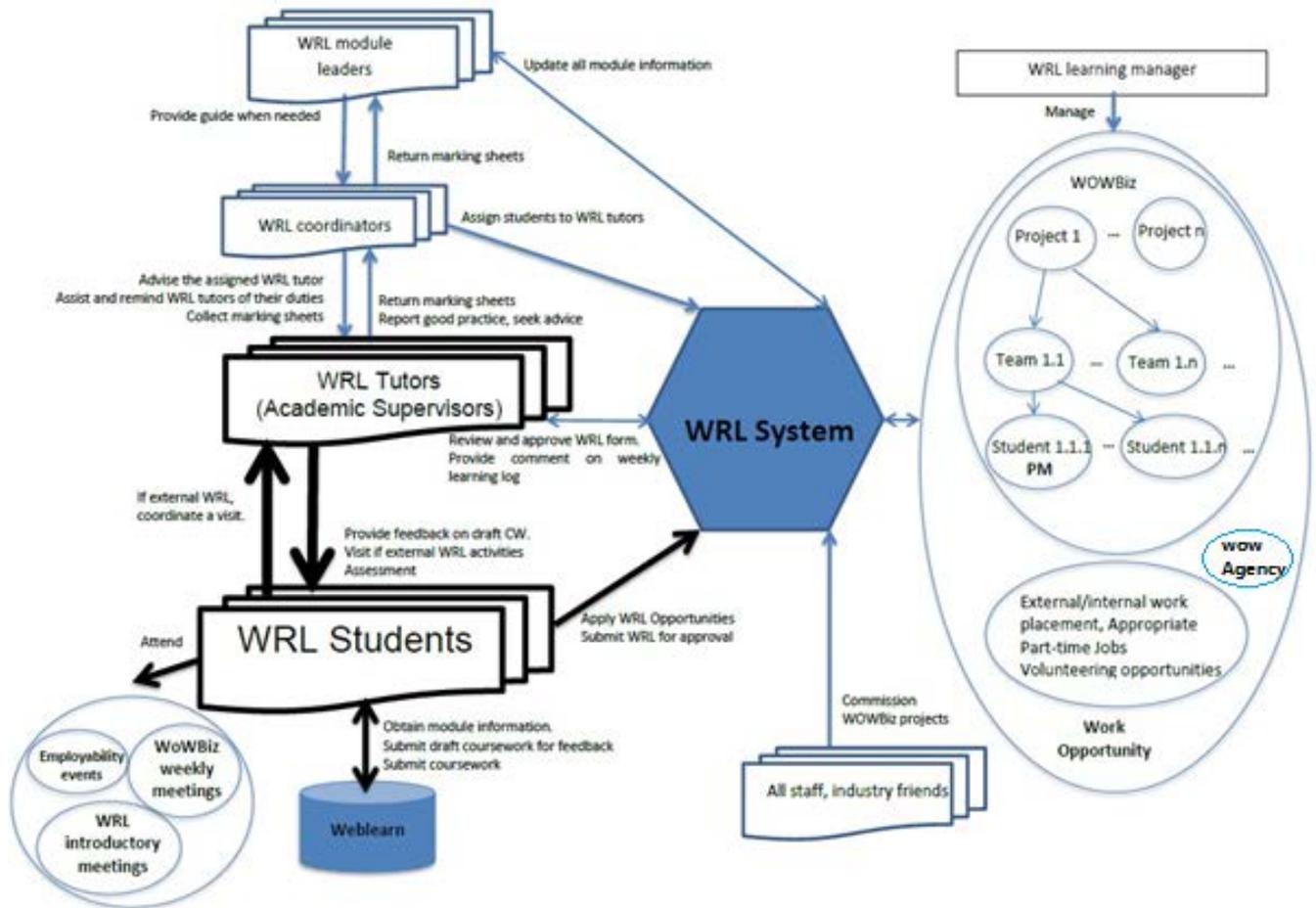


Figure 1. Work Related Learning Framework

3.2 The WOW agency

The WOW agency is a university commercial IT agency managed by an academic supported by a project manager. It employs selective students and graduates to work on commercial projects at affordable rates to businesses. Students and graduates are paid an hourly living wage. Students have the opportunity to observe how a commercial agency operates. It is not a trivial task to secure suitable commercial clients and projects in the highly competitive commercial world. Another key challenge is the quality control of products from the WOW agency to ensure a high commercial standard. The agency has secured highly successful projects from clients including big organizations such as Comic Relief as well as SMEs and start-up companies such as Rockfig and Collier International.

The WOW agency (shown in Figure 2) will use a number of channels to secure projects. The promotion channels include website, event promotion, social media, word-of-mouth. Once a project is proposed, it needs to pass a project evaluation process, and project negotiation process before the project can formally be commissioned.

Students will be selected and trained to fit the skill requirements of the WOW agency projects. Students will be shadowing on a project for a short period of time before they can be formally assigned

to a commercial project. All projects are closely supervised and project managed by an experienced professional.

Since the launch of the WOW agency, it has delivered commercial products for over 60 clients and more than 10,000 paid student hours and over 100 work placement positions have been created.

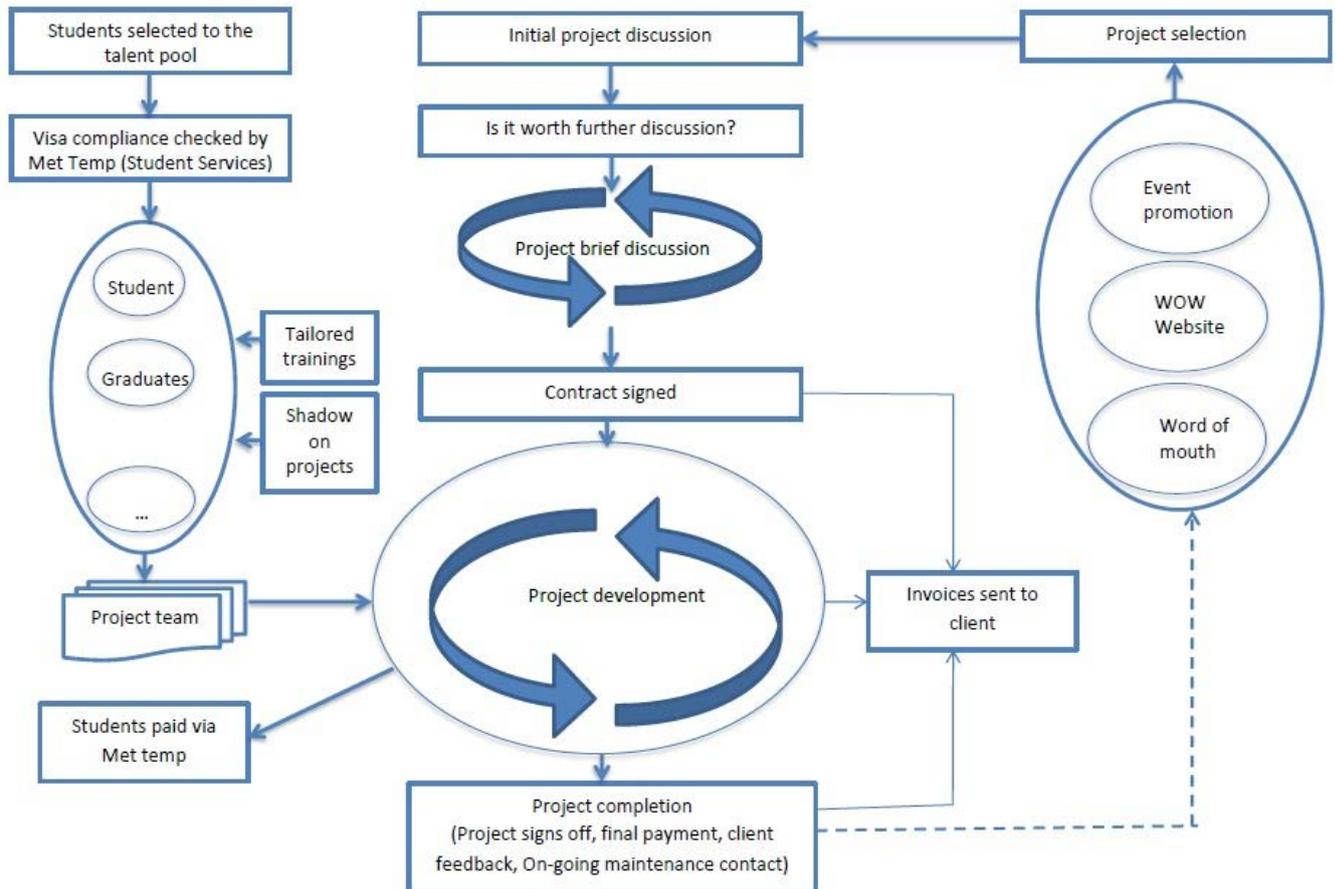


Figure 2. The WOW agency work flow

3.3 An internal virtual business (WOWBiz)

Due to the competitive and commercial nature of the WOW agency, not all students can be employed by it. To make ensure that the rest of the student body can also benefit from the agency, an internal virtual business named WOWBiz has been set up. The key difference compared to the WOW agency is that WOWBiz offers business and charity organizations free IT solutions by working with our students who registered on a Work Related Learning module. WOWBiz organizes students in groups to work on projects proposed by real clients. Students learn in the context of working and gain work related learning experience. The key challenge for WOWBiz is to manage client expectations. As students learn while working on projects, it may not always be possible to develop a fully functional product within a defined timeframe. However, most clients appear to accept it since WOWbiz offers this service free to businesses.

Since the launch of WOWbiz, over 700 students have taken and completed successfully the work related learning module via this initiative.

4. Findings

A survey has been carried out among 50 WRL students in the 2014/2015 autumn semester cohort. The outcomes of this survey shown in Figure 3 and Figure 4 have clearly indicated that students have a much better understanding and appreciation of how their chosen subject can be applied in the real world on real projects.

How much do you think you have improved your professional skills

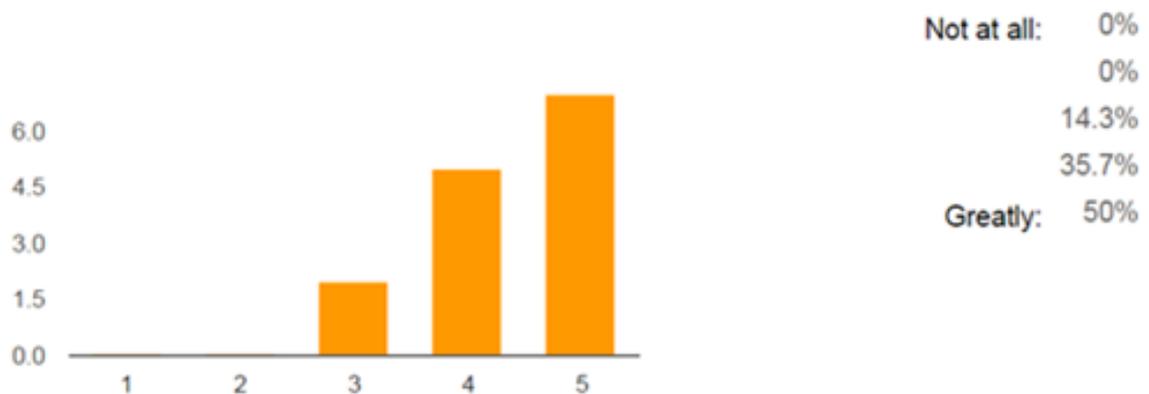


Figure 3 Student survey question 1

How much do you think you have improved your team working skills?

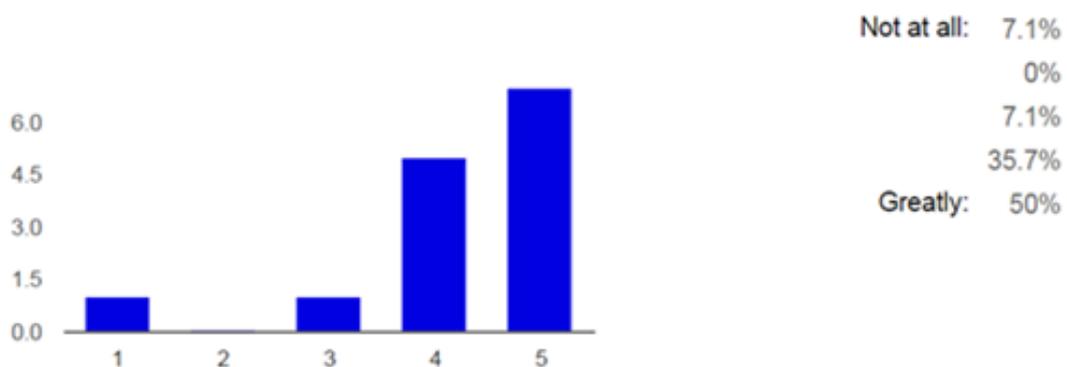


Figure 4 Student survey question 3

An improvement in DLHE (Destination of Leavers for Higher Education) has also been observed for these programmes [HESA, 2015]. The recent DLHE data shown in Figure 5 has shown courses with WRL as one core module has performed noticeably well compared to those that do not have WRL as one core module. Figure 6 further indicates that courses with WRL as a core module has their DLHE data improved in 2013/2014 compared to that of 2012/2013.

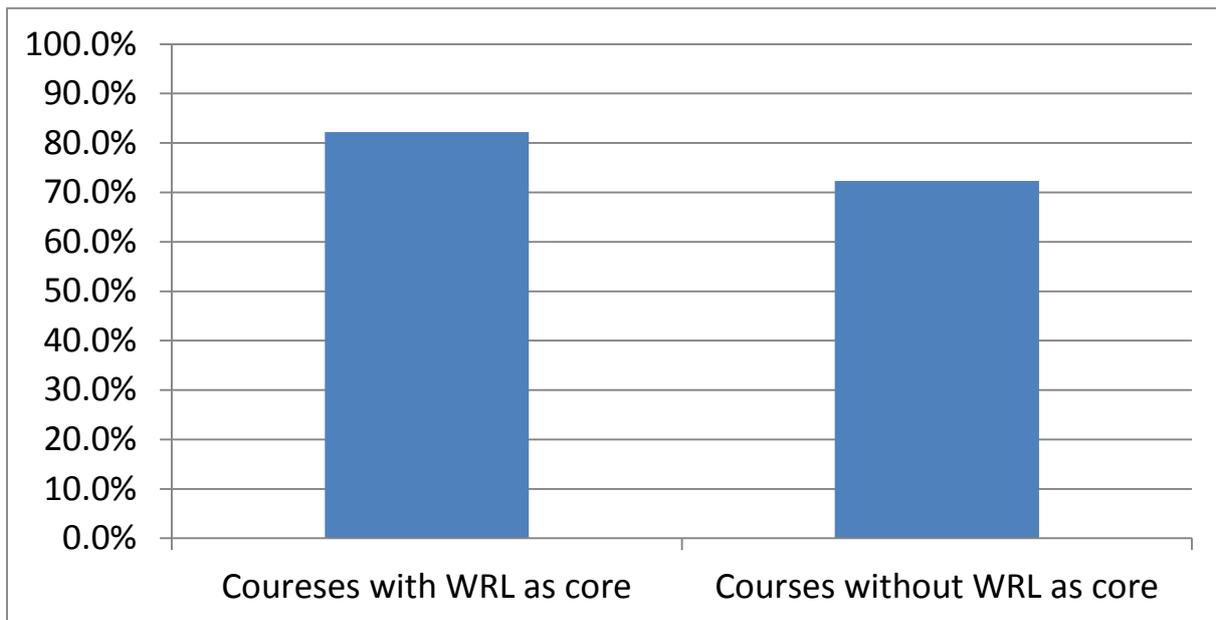


Figure 5. DLHE data comparison between Courses with WRL as a core module and courses without WRL as a core module

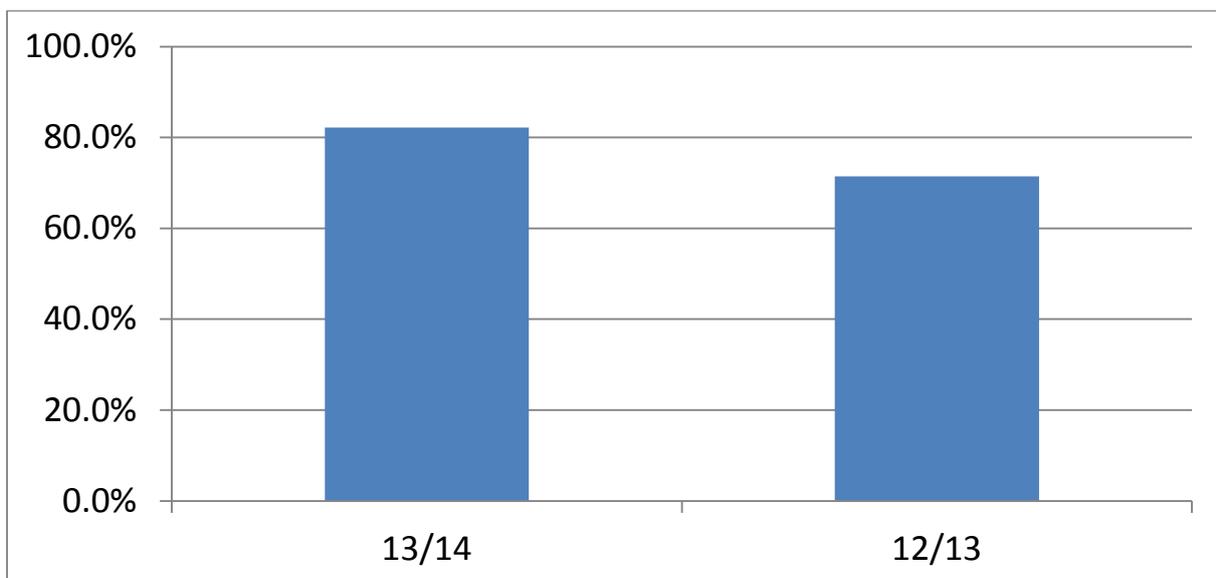


Figure 6. DLHE data improvement in 2013/2014 compared to the data in 2012/2013 for courses with WRL as a core module

5. Discussion and future works

The work related learning modules have been offered to our students for over 2 years, evidence collected so far strongly indicates that the modules have helped to improve student’s employability awareness and improve the DLHE. There is a plan in the university to expand the offering to all courses in the university. It is inevitable that it is needed to reflect on what worked well so far and what can be improved. The following have been proposed as the future works:

1. Explore how the work related learning framework can be adapted for a much larger scale offering of this framework to different subject areas.
2. Carry out a review of all course programmes and work with course teams to propose any work related options and opportunities for students on the courses.
3. Create a CRM system to record and collect work opportunities and monitor the student applications and learning progress.
4. Create a recruitment service to recommend students to employers for internship, placement and graduate positions.

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