Taking stock: Seven years of Conservation Skills Development and Training on Telperion, Mpumalanga

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Abstract

The National Diploma in Nature Conservation (NDNTR) is a vocational diploma and its curricula content requires work-integrated learning (WIL). The essence of WIL, is that it provides the opportunity for students to acquire and apply knowledge in workplace contexts, with the idea that they are work ready and more employable upon graduation. The greatest challenge in providing this workplace context is the lack of willing and qualified industry mentors to supply the need and demand of the WIL component.

In an effort to address this, between seven and ten, one-week long excursions, funded by Ernest Oppenheimer & Son (EOS) and hosted by Unisa, are held per year on Telperion. Each focuses on a WIL curricula learning outcome and always incorporates various aspects of the critical cross field outcomes.

There has been a constant and steady growth in the number of students positively affected by the partnership between EOS and Unisa, through a formalized WIL excursion programme, with up to 44% of the 2014 graduates having passed through this programme.

Introduction and Problem statement

The University of South Africa (Unisa) is one of six Comprehensive Universities in South Africa, whose mandate it is, to offer both academic and vocational diplomas and degrees. The National Diploma in Nature Conservation (NDNTR) is one of these vocational diplomas and its curricula content comprises theoretical modules, practical modules and WIL modules. The essence of WIL, is that it provides the opportunity for students to acquire and apply knowledge in workplace contexts, with the idea that they are work ready and more employable upon graduation.

The author (Wilson, G.A.), who has as been both directly (currently for two years as the module lecturer) and indirectly (previously for six years as an industry representative) involved with the WIL component of this qualification, has experienced first-hand the challenges associated with completing this aspect of the qualification. This has an obvious rippled effect on the completion of the qualification as a whole. The greatest challenge being the lack of willing and qualified industry mentors to supply the need and demand of the WIL component, as co-operative education partners. If one acknowledges that the environmental sector is a scarce skill one[1], then this not only affects the students and institution to which they belong, but the conservation industry as a whole.

In an effort to address this problem, Unisa has partnered with EOS and have been provided access to Telperion. It is used by Unisa as a *living simulation*[2], from which to conduct NDNTR WIL excursions, each linked to WIL learning units and critical cross field outcomes. The creation of this supportive and conducive learning focused industry WIL provider, has addressed many students' needs in terms of WIL provision and this positive effect will be explored further in this poster.

Methodology

On average, there are ten, one-week long excursions, funded by EOS and hosted by Unisa, per year on Telperion. Each focuses on a WIL curricula learning outcome and always incorporates various aspects of the critical cross field outcomes. The lecturer, directly responsible for the learning unit outcome linked to the theory part of the curricula is encouraged to participate, thereby encouraging compliance and support for the specific WIL activity being addressed.

Major themes addressed at these excursions include soil erosion control, fire management, alien plant control, veld condition scoring, animal census techniques, animal population dynamics, miniSASS, conservation communication and environmental education and general technical aspects. The reserve benefits in turn when students actively address issues on the reserve whilst learning, such as the erosion control structures built when addressing soil erosion.

Results

Table 1: Indicating the Conservation training breakdown with regards numbers of excursions, students and mentored hours per year, from 2008 to 2014 with an estimated projection for a completed 2014 based on an average participation.

Year	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**
No. excursions / year	6	2	7	7	2	7	8 (9)
No. students / year	95	30	84	83	45	73	109 (129)
Excursion mentored hours / year	358	130	429	482	144	472	314 (404)

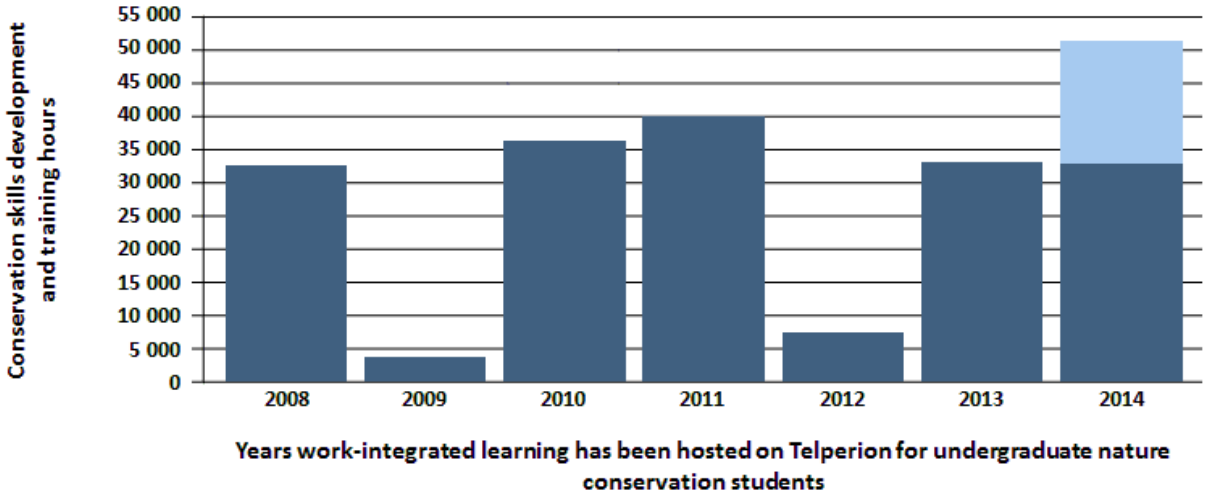

Figure 1: A total of conservation skills development and training hours provided to students per year, from 2008 to 2014, with an estimated projection for a completed 2014 based on average participation.

The numbers of graduates who can attribute their success to the excursions held at Telperion are increasing annually:

- In 2012, 3 of the 11 (27%) benefited from this partnership
- In 2013, 4 of the 14 (29%) benefited from this partnership
- In 2014, 12 of the 27 (44%) benefited from this partnership

Discussion and Conclusion:

The two obvious dips seen in Figure 1, in the years 2009 and 2012, can be directly linked to staff and organizational restructuring. Apart from these two years, there has been a constant and steady growth in the number of students positively affected by the partnership between xxx and Unisa, through the formalized WIL excursion programme.

The success of this programme lends itself for consideration in other provinces, so that students in other areas of the country may also benefit from this partnership. EOS managed reserves in the rest of the country would be able to act as host reserves to meet this end.

Whilst this programme alone is unable to address the scares skill shortage in conservation, it is at least starting somewhere and promising to make a difference.

[1] Department of Environmental Affairs, Environmental Sector Skills Plan for South Africa, May 2010

[2] *living simulation:* a term coined by the author, Wilson A, to describe a WIL experience which is real yet not truly work based. E.g. construction of a gabion to combat soil erosion, while the experience is real in as much as an actual experience in erosion control is gained, the work related context is missing, thereby alluding to a work simulation but a living experience to the problem