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4.10-4.25pm

## Does the new internship module in Life Science curriculum enhance the development of generic skills and employability attributes?

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Generic skills and attributes are applicable to multiple settings, from academic, workplace to social settings. They could range from thinking skills (e.g. critical thinking and problem solving), interpersonal skills (e.g. communication and collaboration) to attributes (e.g. adaptability, resourcefulness and resilience). Graduates with these skills and attributes are perceived by potential employers to adapt, perform and progress better in the modern workplace (Atkins, 1999). Employers expect university education to produce graduates with such skills and attributes to meet the rapidly changing skill demands from its workforce (Sarkar, 2016; Tomlinson, 2008).

In preparing graduates for the challenges of the global fourth industrial revolution and in aligning to Singapore's national SkillsFuture movement, the National University of Singapore (NUS) has an extensive framework to nurture future-ready graduates and support alumni with knowledge, skills and attributes to increase their employability and enable them to develop successful careers. In line with the university's efforts in nurturing future-ready graduates, a new internship program that involves 4-6 months of work placement for final year undergraduates has been incorporated into the Life Science curriculum. Work placement or internship programs have been recognized to be useful for the development and nurturing of generic skills and employability attributes (Te Wiata, 2001; Crebert *et al.*, 2004).

Since its inception in Academic Year (AY) 2016/17, the enrolment for the final year internship module (coded as LSM4299) has increased from 28 students (~6.6% of cohort) to 129 students (~27.9% of cohort) in AY 2017-18. With the large increase in enrolment over a year of its launch, it is timely and important to evaluate the perceptions of students and workplace supervisors on the effectiveness of LSM4299 in nurturing generic skills and employability attributes. As recommended for assessing internship/practicum using a 'broad abilities model' (Toohey *et al.*, 1996), students of LSM4299 and their workplace supervisors were asked about their perceptions on the effectiveness of the internship for developing generic skills and employability attributes. An online survey questionnaire consisting of a list of items including 14 skills and attributes, similar to those used in previous studies (Rayner & Papakonstantinou, 2015; Sarkar *et al.*, 2016), were administered to students and workplace supervisors, separately. Overall, 90.2% of the student respondents indicated that the internship was 'useful' or 'very useful' for their professional training, and 77.3% reported that they received 'good' to 'very good' guidance from their workplace supervisor, while 80.5% indicated that the internship was 'slightly' to 'moderately' challenging/difficult. Among the 14 skills and attributes, 'analytical and critical thinking skills', 'problem solving skills', 'practical creativity skills', 'resilience' and 'self-confidence

and independence' had greater than 60% of the respondents rated themselves as 'good' or 'very good' and had greater than two-fold improvement at the end of the internship. Greater than 80% of the workplace supervisors considered 10 of the skills and attributes to be 'important' or 'very important' with respect to the internship. Although all the skills and attributes of students had improved mean ratings from their workplace supervisors at the end of the internship, only 3 of the skills, namely 'written communication skills', 'time management, planning and organizational skills', collaboration skills and teamwork' were rated as 'good' or 'very good' by greater than 80% of the workplace supervisors. The findings suggest that the remaining 7 skills and attributes of the students may not have met the expectations of some of the workplace supervisors. Taken together, the findings suggest that the internship training was perceived by students as useful for their professional training and that it had improved their generic skills and employability attributes although they might not have matched the expectation of some workplace supervisors. A parallel 'bolt-on' approach to enhance generic skills and employability attributes development during the internship is proposed.

### Keywords

generic skills, employability attributes, work-placement, internship

### References

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