From M&M's to developing innovative foods: A scaffolded approach to developing research skills in Food Science classes.

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Abstract: A balance between teacher centred and student centred learning will be shown in this paper to underpin contemporary curriculum design in the development of students' practical research skills and deep learning to effectively meet the needs of research and industry in an undergraduate Food Sciences. Embedding a number of strategies throughout the program assisted the curriculum to bridge the gap between traditional 'cook book' approaches and inquiry based approaches to teaching and learning, and the actual needs of work ready graduates or students wishing to undertake higher education.

Measurement of outcomes was achieved through survey evaluation (students both pre and post completion of both individual activities and study and an employer survey) and through comparative assessment criteria.

Students consistently reported that they valued the opportunity to construct the knowledge through several student centred activities. Graduates demonstrated a higher level of functioning as independent thinkers and a foundation for life long learning. Employers also appreciated our work ready graduates. This approach has also seen academically average students short listed for a national competition.

Using an innovative curriculum design in which information is collaboratively constructed by the teacher and students through the use of many scaled, real world investigative tasks, graduates are immediately both "work" and "research ready".