

# Mapping Graduate Qualities in an undergraduate Health Science program

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## Abstract

*Drawing on both Graduate Qualities and First Year in Higher Education (FYHE) literature, this nuts and bolts session will discuss the implementation of the newly developed graduate qualities into the core topics in a Bachelor of Health Science (BHS) program. The setting for paper is one of Australia's last universities to implement graduate qualities, which is currently undertaking major curriculum reforms. Given these changes, this exercise provides an active example of how the mapping process was undertaken, the challenges in conceptualisation and implementation. Participants will be provided with some of the tools that were developed as part of this process which can then be applied to their own institutions. Alternatively participants may consider whether investing in them is an appropriate strategy to support staff who work with first year students.*

Flinders University is one of the last Australian universities to have developed and implemented graduate qualities. Given that these have been developed and implemented in other settings, the literature provides examples of implementing graduate qualities (or attributes) in such diverse programs as ICT (Al-Mahmood & Gruba 2007), marketing (Treleaven & Voola 2008), music (Bath, Smith, Stein & Swann 2004) and business (Medlin, Graves & McGowan 2003). The embedding process can be viewed as a means to validate and align curriculum, however, in doing so quality assurance and measurement needs to be accounted for in a stable and reliable manner (Bath et al 2004; Su & Feng 2008).

Treleaven & Voola (2008) and Medlin, Graves & McGowan (2003) provided useful templates by which the intended learning objectives were aligned with various attributes and assessment. There appears some coherency in this mapping exercise, but as Bath et al (2004) warn that the measurement of the student experience and perceptions of their development through the curriculum needs to be similar to that of the designers intention. As Boud & Falchikov (2006) direct, it is the feedback on student performance as they develop which is integral for deep learning to occur.

While this project had a number of objectives, this paper will focus on the identification of where the graduate qualities were embedded in the curriculum of the BHS core topics.

This project used constructivist theory to provide the means for understanding the need for alignment of topics with the intended learning outcomes (ILO), and with the graduate qualities (Medlin, Graves & McGowan 2003; Treleaven & Voola 2008). The theory also provides a structure for the scaffolding process within a degree, so that core topics in the BHS program can be designed to incrementally develop student

capacity. It removes the need for one topic to ‘provide’ all the attributes or qualities of a graduate.

This project used an action research design which used mixed methods for data collection. Data was drawn from student evaluation of teaching (SET) questionnaires, an online questionnaire, and semi structured interviews,. Participants included students, part time teaching staff and topic coordinators. The project was divided into a pilot phase and main phase, in order to establish the construction of the constructive alignment matrix tool as part of the main phase data collection which enabled the mapping of the graduate qualities.

## **Results**

The pilot study (in another submission) established the need to develop a matrix which enabled topic coordinators to align their curriculum, assessment, intended learning outcomes (ILO) which the newly developed graduate qualities.

Using the matrix, the main study exemplified the extent to which the topics already possessed some alignment with the newly developed graduate qualities. When discussing the results with topic coordinators, they were able to reflect upon their topic, thereby providing an opportunity for further discussion on embedding of the graduate qualities and exploring the extent to which aligned with one another.

## **Implications**

Reflecting upon the research process there are a number of key points for consideration. Firstly, it is necessary to have staff ‘buy-in’ (support) for the review process. This fact can not be understated, given the current time demands upon academic staff. Therefore, in order to assist academic staff with the review process, both authors facilitated the process by generating and partially completing various templates during data collection. One method to elicit such support is by the process as time efficient as possible assisted busy academics with what is seen a bureaucratic process.

## **Conclusion**

In conclusion, this research project and its subsequent process has enabled educators to reflect upon the constructive alignment within their topics, and that, in and of its self has been a valuable part of this process. Further, the linking of skills between topics has also provided educators with an end goal, and the realisation that their topic not need provide all skills. The opportunity for the tutors to provide formal feedback enables them to be included in the topic revision across the BHS. Further, the task of formally recognising the inclusion of graduate qualities in the curricula, has been promptly executed by the development of the tools and the buy-in nature of this research project. The provision of practical support for topic coordinators by: providing consistency across topics in measurement, reporting and implementing change was advantageous. Lastly, it was beneficial that this project was overseen by the researchers thereby enabling the topic coordinators the freedom to reflect on practices, while providing the necessary data to complete this task.

The research also enabled the development of a series of tools that will assist in future topic revision and development. These tools provide an easy to use framework enabling the incorporation of the graduate qualities to be evaluated against the assessment requirements, and the intended learning outcomes. The results indicated that there was some alignment of curriculum to learning outcomes, and assessment within and between core topics.

### **Outcomes of FYHE session**

What this session highlights for other first year practitioners demonstrates the further development of various existing mapping tools for the assessment and review of topics using various indices, such as Student Evaluation of Teaching data. It also draws on existing literature around constructive alignment and graduate qualities to further development of new applications. By demonstrating the use of mixed methods, this presentation further supports the value of including front line teaching staff to then objectively analyse the topic content, in order to scaffold the incremental skills and learning over the entirety of the program. Working closely together, the two topics which have been used as examples in this presentation highlight the necessity for programs to work collaboratively in order to gain a sense of continuing skill development.

The following session outline is designed to provide participants with the opportunity to consider whether mapping as part of their curriculum design.

### **Session outline**

**Whole group discussion ice breaker (5 mins):** Outline overview of graduate qualities to date as discussed at Pacific Rim FYHE. Consider the question of first year topics and mapping graduate qualities, and its relevance now after some time.

**Facilitators (5 minutes):** Outline of mapping and the BHS topics at Flinders University.

**Paired discussion (10 mins):** Ask pairs of participants to consider one or more of the following topics:

1. the potential value of mapping as First Year Teachers within their own institutions.
2. existing mapping examples for staff working with first year students within the audience participants.
3. how the value of mapping which can then be extended across various programs given the diversity of audience participants.

**Facilitators + Whole group discussion (10 mins):** Draw together ideas from floor – what has come up that has been experienced in other innovative programs while also discussing whether participants consider merits of the newly presented mapping tools within in first year programs.

## References

- Al-Mahmood, R., & Gruba, P. (2007). Approaches to the implementation of generic graduate attributes in Australian ICT undergraduate education. *Computer Science Education, 17*(3), 171-185.
- Arnon S & Reichel N, 2009 'Closed and Open-Ended Question Tools in a Telephone Survey About "The Good Teacher". An Example of a Mixed Method Study' *Journal of Mixed Methods Research*. Vol. 3, no. 2 pp 172-196
- Bath, D., Smith, C., Stein, S., & Swann, R. (2004). Beyond mapping and embedding graduate attributes: Bringing together quality assurance and action learning to create a validated and living curriculum. *Higher Education Research and Development, 23*(3), 313-328.
- Boud, D., & Falchikov, N. (2006). Aligning assessment with long-term learning. *Assessment & Evaluation in Higher Education, 31*(4), 339-413.
- Jang, E. E., McDougall, D. E., Pollon, D., Herbert, M., & Russell, P. (2008). Integrative Mixed Methods Data Analytic Strategies in Research on School Success in Challenging Circumstances. *Journal of Mixed Methods Research, 2*(3), 221-247.
- Medlin, J., Graves, C., & McGowan, S. (2003). Using diverse professional teams and a graduate qualities framework to develop generic skills within a commerce degree. *Innovations in Education and Teaching International, 40*(1), 61-75.
- Su, Y. H., & Feng, L. Y. (2008). Assessing graduate attributes for employability in the context of lifelong learning: The holistic approach. *US-China Education Review, 5*(11), 1-10.
- Treleaven, L., & Voola, R. (2008). Integrating the development of graduate attributes through constructive alignment *Journal of Marketing Education, 30*(2), 160-173.