

## **MULTIPLE MEASURES - BACKGROUND NOTES**

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These notes offer background reading and information for users of the Multiple Measures online tool and website, www.multiplemeasures.org.au.

For further detail, or with any questions, please contact the authors, listed above.

# **Q 3+4: LEARNING OUTCOMES**

Q3: How important is it that each student develops his/her own disciplinary practice/s through this ID activity? (Not important > Very important)

#### Q4: How important is it that each student develops skills and abilities to work with others from different disciplines/industries through this ID activity? (Not important > Very important)

The product or outcome produced by students can be treated as the means to develop interdisciplinary engagement skills. In this approach assessment may focus on collaborative, entrepreneurial and presentation skills, or the ability of students to find a common language and deal with ambiguity (Bailey, 2010; Boix Mansilla, 2005; McPeek & Morthland, 2010).

KEYWORDS: Collaboration, communication skills, tolerance, entrepreneurial skills, ambiguity

Your responses to questions via sliders / checkboxes in the tool will filter MM exemplars. These can match your interests for the benchmarking of your own completed units / subjects and will give you a set of similar comparators to inform this. Finding contrasting examples, by using the questions to filter differently, may offer new insights useful for design and development of new teaching approaches.

Exemplars included in the Multiple Measures tool are coded according to mark allocation for assessment tasks that highlight either increasing individual / disciplinary depth of practice or improving breadth of collaborative skillsets. If the majority of marks were for individual work and demonstration of "disciplinary" skills, then "more flexible thinking and practice/s" was considered of greater importance than skills for interdisciplinary engagement. If marks were allocated evenly then equal weighting for disciplinary depth and interdisciplinary skills was given. This was also informed by interview data collected for each unit/course/subject.

Exemplars that assessed students' collaborative, entrepreneurial and presentation skills, or a student's ability to find a common language and deal with ambiguity, were weighted more heavily for this question.

Background notes, June 2016 Q4 – LEARNING OUTCOMES

#### Notes

In questions 3 + 4 we focus our expectations on students' learning through interdisciplinary activities and assessment tasks. AQF Level 7 highlights the value of such activities stating that students graduating from a Bachelor's degree are expected to have a "broad and coherent theoretical and technical knowledge with depth in one or more disciplines or areas of practice" (Australian Qualifications Framework, 2013, p. 47).

The attainment of such learning aims to value the development of the "T-shaped individual", whereby graduates "have deep knowledge of one subject (the down stroke of the 'T') and broad experience and understanding of other disciplines (the cross-stroke)" (Leonard-Barton, 1995 in Bailey, 2010).

The appropriate balance between depth and breadth is contingent on the students' stage of learning and personal development (see question 1). At the early stages of an undergraduate degree it may be more appropriate to be focusing on developing skills that will enable students to increase disciplinary depth, such as research skills, and the use of technologies appropriate to the discipline (de la Harpe & Peterson, 2008; Mafe & Webb, 2009). Those interdisciplinary studies highlighting disciplinary depth may be more suitable at such a stage.

Interdisciplinary engagement allows students to acquire sets of skills and knowledge that can be applied to all successive learning, contributing to the development of disciplinary depth. Disciplinary depth helps to form the cognitive maps ('paradigms') and vocabularies necessary to both disciplinary and interdisciplinary studies (Davies & Devlin, 2010). Confidence in one's disciplinary grounding, is also important for further successful interdisciplinary engagement (Bailey, 2010; Boix Mansilla, 2005).

By Master's level, graduates are expected to have already developed depth, or "expert, specialised cognitive and technical skills in a body of knowledge or practice" (*Australian Qualifications Framework*, 2013, p. 59). At this level, developing skills for interdisciplinary engagement may be motivated by goals of increasing students' employability – skills such as communication, teamwork and problem-solving (see

<u>http://www.assuringgraduatecapabilities.com/</u> for examples of graduate capabilities and their support and encouragement according to discipline).

This pair of questions asks the designer of an interdisciplinary course to consider the balance of emphasis between **disciplinary depth** and **interdisciplinary breadth**. Are the learning outcomes from the course going to help the students perform better in their own disciplinary practice (depth)? Or is the emphasis on gaining skills and knowledge that will enable further interdisciplinary engagement (breadth)? Most courses will be aiming to foster a mix of these outcomes, but will reflect a stronger desire to achieve one or the other.



## **Useful References**

- Australian Qualifications Framework. (2013). Canberra: Australian Qualifications Framework Council. Retrieved from: <u>http://www.aqf.edu.au/aqf/in-detail/2nd-ed-jan-2013/</u>.
- Bailey, M. (2010). Working at the edges. Networks, Autumn(11), 42-45.
- Bhana, B. (2010). *Designeracademia Exploring the art of interdisciplinary pedagogy for the twentyfirst century*. Paper presented at the CONNECTED 2010 - 2nd International Conference on Design Education, UNSW, Sydney, Australia.
- Boix Mansilla, V. (2005). Assessing Student Work at Disciplinary Crossroads. *Change: The Magazine of Higher Learning, 37,* 14-21.
- Boix Mansilla, V. & Dawes Duraising, E. (2007). Targeted assessment of students' interdisciplinary work: An empirically grounded framework proposed. *The Journal of Higher Education, 78*(2), 215-237.
- Burgett, B., Hillyard, C., Krabill, R., Leadley, S. & Rosenberg, B. (2011). Teaching Interdisciplinarity. *Pedagogy: Critical Approaches to Teaching Literature, Language, Composition, and Culture, 11*(3), 465-491.
- Corkery, L., Roche, B., Watson, K. & Zehner, R. (2007). *Transforming design studio learning and teaching through real world, interdisciplinary projects*. Paper presented at the ConnectED 2007 International Conference on Design Education, UNSW, Sydney, Australia.
- Davies, M. & Devlin, M. (2010). Interdisciplinary Higher Education. In M. Davies, M. Devlin, & M. Tight (Eds.), *Interdisciplinary Higher Education: Perspectives and Practicalities* (pp. 3-28). Bingley: Emerald House Publishing.
- de la Harpe, B. & Peterson, F. (2008). *A model for holistic studio assessment in the creative disciplines*. Paper presented at the Proceedings of the 2009 ATN Assessment Conference, Adelaide, Australia.
- Garner, S. (2005). Revealing design complexity: Lessons from the Open University. *CoDesign, 1*(4), 267-276.
- Klein, J.T. (2004). Prospects for Transdisciplinarity. Futures, 36, 515-526.
- Klein, J.T. (2005). Integrative learning and interdisciplinary studies. *Peer Review, 7*, 8+. Retrieved from:

http://go.galegroup.com.ezproxy.lib.monash.edu.au/ps/i.do?id=GALE%7CA137915257&v=2.1& u=monash&it=r&p=AONE&sw=w&asid=ed3314a7720a72779d35c95d2a30b6a6

- Longbottom, C., Bell, G., Vrcelj, Z., Attard, M., Hough, R. & Carrick, J. (2009). *Project X: The experience of student-led multidisciplinary design courses across 3 faculties at UNSW*. Retrieved from: http://wikifoundryattachments.com/11lyk9DW-lkJNMgIMYb7Eg413990
- Mafe, D. & Webb, M. (2009). Introducing the interdisciplinary: The foundations year and the open studio. Retrieved from: <u>http://eprints.usq.edu.au/8730/2/Binder1.pdf</u>
- Mahy, I. & Zahedi, M. (2010). When artists and designers inspire collective intelligence practices: Two case studies of collaboration, interdisciplinarity, and innovation projects. Paper presented at the Design Research Society Conference on Design and Complexity, Montreal.
- McPeek, T. & Morthland, L. (2010). *Collaborative design pedagogy: An examination of the four levels of collaboration*. Paper presented at the Design & Complexity: Design Research Society International Conference, Montreal, Canada.
- Quinlan, A., Corkery, L. & Castle, J. (2004). Building the Framework for Educational Change through Interdisciplinary Design Learning: Implementing Boyer's Scholarships of Integration and Application. Paper presented at the AARE National Conference, Melbourne.
- Zehner, R., Forsyth, G., de la Harpe, B., Peterson, F., Musgrave, E., Neale, D. & Frankham, N. (2010). *Optimising Studio Outcomes: Guidelines for Curriculum Development from the Australian Studio Teaching Project.* Paper presented at the CONNECTED 2010 - 2nd International Conference on Design Education, UNSW, Sydney, Australia.