

THE SCHOLARSHIP OF TRANSDISCIPLINARY SPACES: ART MEETS SCIENCE

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BACKGROUND

Our recent experiences as guest editors for a special issue on 'Science meets Art' in education for International Journal of Innovation in Science and Mathematics Education (Quinnell, Wegener, LeBard & Beames, 2019) have made us wonder how 'scholarship' is defined when working in transdisciplinary spaces that map across STEAM. Strategies that significantly enrich student experiences and invite broader adoption deserve sharing. However, some strategies are not being disseminated through SOTL research fora because they are judged to lack scholarly framing.

CASE STUDIES

We offer a synopsis of the submissions that came across our desks. We wonder at how best to offer work that sits at the edges of science, science education and creative arts, and where the scholarly frame is somewhat mercurial. We offer a compelling study from the University of Queensland (UQ) where medicine students were asked to respond artistically to pathology museum specimens and associated case notes, as part of their 'coping with medicine' program. Medicine is inherently interdisciplinary, depending on science, technology and human interactions. This program focused on developing empathy and reflective practice in students and culminated in an exhibition of students' work in the Integrated Pathology Learning Centre (Faculty of Medicine UQ, 2018). The creative works that the students produced were visual representations of the essence of students' understandings of disciplinary knowledge and tell the stories of their experiences in coming to grips with sometimes-confronting knowledge.

ARGUMENT

We advocate pushing the boundaries of what is considered appropriate scholarly work in science education and to accommodate methods other than those based on numbers, such as ethnography, and to support those who are currently using the arts in their science and mathematics education to discuss their contributions using the full spectrum of scholarly approaches.

CONCLUSIONS

Scholarly practices from disciplines beyond science and mathematics have the power to invite critical reflection on discipline norms. We encourage STEM educators to look to the arts to lend creativity and to inform both teaching and SOTL practices.

REFERENCES

- Quinnell, R., Wegener, M., LeBard, R., & Beames, S. (2019). When Science meets the Arts: Bridging the subjective-objective divide (editorial). *International Journal of Innovation in Science and Mathematics Education*. 27(7), 1-3.
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