

AN INVESTIGATION INTO SCIENTIFIC LITERACY AMONGST UNIVERSITY STUDENTS

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ABSTRACT

In modern societies, science is central to governance and democratic involvement. Without understanding science, leaders and citizens cannot effectively participate in debates on issues from nuclear power to climate change. Scientific literacy is the establishment and assessment of benchmarks in public understanding of science. The dominant model is due to Miller (1983) and has three dimensions: core scientific content like "radiation" and "DNA"; understanding of the scientific process; and consideration of the relationship between science and society.

We have created an instrument based on existing surveys for public scientific literacy, which have not been applied in Australia. The instrument covers the three dimensions outlined above. It was administered to 273 first-year Physics students with differing secondary science backgrounds, and 28 Honours and postgraduate Physics students. Preliminary results indicate marked differences in sophistication, focus and perceptions among the groups in some areas, and consistency in other areas despite very different levels of Physics education. We will present these results and further qualitative analysis carried out with NVivo.

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REFERENCES

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