
Best Practice

Best Practice in Marine and Coastal Field Work

by Jan Oliver

The concept of best practice was developed in industrial situations in the late 1970s in the Xerox Corporation of USA (Tucker 1996). Best practice is also inherent in Japanese culture (McDonnell, 1993). Recently, many organisations in Australia have striven to identify and publicise those actions or strategies which can be termed to be most effective in gaining efficient, superior performance in every facet of a business. Federal, state and local council regulations may now require the establishment of best environmental practice to ensure that activities by various organisations are environmentally sustainable.


There has been little attempt in Australia however, to establish guidelines to the most effective and 'best' practices in marine fieldwork. Yet, many of the guidelines on establishing best practices in industry can be adapted for use in educational situations. The Marine Education Society's Workshop at Jervis Bay in 1995 attempted to investigate the types of activities used in a marine setting which could be labelled 'best practice' for the location, audience, and the style of the teacher taking the activity. This publication brings together both the activities trialled then, together with discussions on what is best practice in marine fieldwork at a workshop at the Coast to Coast Conference in Adelaide in 1996, and the reactions of teachers sampled by the research team from Macquarie University during the Coast and Marine Schools Project Stage 1 (MESA 1995, Oliver 1996, and Macquarie University Research 1996).

What constitutes best practice in marine and coastal fieldwork is hard to actually define, especially as many educators cannot even agree on what is the best way to measure a student's performance. As a result of these recent deliberations, the following points all relate to what educators and some marine user groups feel are important in establishing best practice.

Best practice fieldwork with students and the community in coastal and marine environments will:

- develop practical skills and positive attitudes
- lead to positive action on conservation and preservation issues
- increase knowledge, understanding, and appreciation of the marine environment
- require students to act and think independently
- be based on scientific research and practice
- establish safe practices and avoidance of hazards
- allow responsible and respectful use of the environment
- be transferable to other situations and across curricula
- allow holistic relevant viewpoints
- lead to post-school education or vocational training
- allow understanding of management and regulations relating to coasts
- enable appropriate collection of data and classification of marine organisms
- be fun to do
- sustain or increase community links
- promote understanding of the physical, economic and recreational features of an area
- allow social development of the participants
- apply to the school curricula yet provide extra curricula experiences
- provide sensory experiences
- be achievable by non-English speaking or physically challenged students
- require little manipulation of species
- require few permits to achieve objectives
- be performed anywhere

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- have minimal effect on the environment
 - require minimal equipment to achieve aims
 - be seen to have objectives and outcomes of relevance
 - be recognised, identifiable so that you 'know it when you see it'
 - require comparison with other practices and other educational institutions.

Ranking these in importance also proves very difficult. Some educators considered only the first six features were essential. Others challenge the inclusion of 'fun', and of 'recognised, identifiable activities'. Still others raised questions such as:

1. Should fieldwork be directed solely at the acquisition of knowledge through the application of 'good' techniques and skills?
2. What should be done with the data collected?
3. If data is not exchanged with others, or innovative ways of interpreting what is observed, as part of the entire coastal system are not used, are these then 'bad' activities?
4. How do we avoid the routine, sometimes boring tasks associated with data collection in the outdoors? How do we motivate everyone?
5. How do teachers justify the inclusion of marine fieldwork when faced with school demands for achieving the best levels of achievement for their students because of the competition for tertiary entrance places?
6. What is the role of the individual teacher in deciding upon, and then implementing best practice? Is the educational institution the final arbiter of what is best practice?

How do we go about establishing best practice in marine environmental fieldwork?

Work in industry and government agencies usually commences with an environmental audit or assessment of the existing situation. This will identify problems in achieving best practice. Then a management plan would be developed, followed by monitoring and an evaluation and ongoing improvement.


In an educational setting, teachers can use the same practices. A brainstorm with a small group of teachers and older students who have participated in marine fieldwork could resolve features and problems already encountered. Are there good reasons to change existing practices? Solutions may be proposed which involve new activities, more holistic applications of data collected, use of different field sites, more games. An examination of the activities described in this book could act as an impetus to solve problems and to change practices. But they will need to be adapted to the local scene, the local curricula, the local demands of schools.

There will probably never be total consensus as to what constitutes best practice in fieldwork. Many best practices may depend on the abilities of the individual teacher, their passion about their subject, their commitment to being considered innovative. Some educators in marine centres have suggested however that the true test of best practice is that it can be done by any teacher if the appropriate process is set in place. The activities which follow may start that process.

References

- 1996, *School Environmental Audit, A Guide to best practice environmental management*, Keep Australia Beautiful Council (Qld), Fortitude Valley, Qld.
- Australian Manufacturing Council Secretariat and Jones, S. 1995, *Lessons from Best Practice Practitioners*, AMC, Melbourne.
- Australian Manufacturing Council 1992, *The Environmental Challenge: Best Practice Environmental Management*, AMC, Melbourne.

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- Clark, R. 1995, 'From What? To why? To why not? Techniques and tools to reflect on current practices and motivate for better practices', paper presented to Central Queensland Extension Forum, DPI, Rockhampton April 1995.
- McDonnell, J. 1993, *The Best Service in the World: A Critique of International Best Practice as Applied to the Australian Service Industries*, AGPS, Canberra.
- Macquarie Research Ltd, 1996, *Coast and Marine Schools Project Stage 1 (3), Identification of Best Practice, Final Report*, MESA, Macquarie University, AAEE, Sydney.
- MESA, 1995, *Jervis Bay Workshop Program and Abstracts*, Marine Education Society of Australasia, Brisbane.
- Oliver, Janet, 1996 'Establishing best practice: The Jervis Bay Experience' in *Proceedings of the Coast to Coast Conference*, Uni. Adelaide Press.
- Tucker, N. 1996, 'Benchmarking and Best Practice', *Creative School Management*, Vol 13:8, March 1996, Philip Roff & Associates Pty. Ltd., Melbourne.