Active citizenship for a sustainable future:
Beyond school learning

JOCELYN PAPPRILL

KEY POINTS

• Education for sustainable citizenship is vital if we are to strengthen democratic processes and address complex, inescapable and seemingly insolvable “wicked problems”.

• Environment Canterbury’s Youth Engagement Team has joined with partners to facilitate 3- to 6-day experiential education residential hui for 14–15 year olds to explore the wicked problem of water management.
A May 2011 paper by Rachel Bolstad from NZCER entitled “Taking a ‘Future Focus’ in Education—What Does it Mean? stimulated deep debate within the Youth Engagement team at Environment Canterbury. Bolstad’s opening questions challenged us to consider three main questions.

- How do we think learning is carried forward from schooling into other aspects of life?
- How do we conceive of the role of schooling in meeting wider societal purposes (e.g., is schooling for the benefit of individuals’ futures, or for society’s future, or both)?
- Where do we think individual and collective responsibility lies in relation to shaping and creating the future? (Bolstad, 2011, p. 1)

It made us think about the work we do with schools and how we may improve the quality of that engagement with students as young citizens. This became even more important as the Canterbury Water Management Strategy (CWMS) rolled out across the region. Our team realised that to tackle such issues as water management, the next generation of decision-makers and active citizens need to be scientifically literate, and have an understanding of the imperatives for sustainability, and be future-focused and critical thinkers.

The “wicked” issue and an education for sustainability approach

The world is facing many wicked problems (Jordan, Kleinsasser & Roe, 2014): that is, those problems that have no easy solution. They are often highly complex and value-laden with contested perspectives. Facing up to wicked problems or significant issues requires new ways of working and new modes of thinking. One of Canterbury’s most pressing wicked problems is water management; this covers the quality and quantity of water within Canterbury, a problem that has increased with intensive dairy farming, but there are also issues associated with the declining health of both surface water and groundwater, an ongoing loss of cultural value and recreational opportunities, as well as the declining availability and reliability of water for agricultural and energy users. These are similar to water issues found elsewhere in New Zealand. Water use, no matter the location, is very much a contested issue with many differing viewpoints and behaviours in relation to waterways.

Water management in Canterbury is governed by the Canterbury Regional Council [Environment Canterbury (ECan)], with the process facilitated through the Canterbury Water Management Strategy (CWMS). It is this system of governance and use of the strategy that the students can primarily learn about through field trips, lectures and experiences in the Youth Engagement programmes run by our team and partners. Each programme is predicated on the fundamental principles of Education for Sustainability (EfS), that is, about developing awareness, attributes, multidisciplinary knowledge and action competencies so that young people can more readily engage with the issues as active citizens once they are back in their schools and communities.

Addressing the issue(s) through experiences

All our residential programmes are run in partnership with other organisations, with no cost to participate for youth aged 15–24. Students self-select from invited schools and tertiary institutions with generally more females than males participating. Over the years most of the students have been Pākehā, from decile 4–7 schools.
A facilitated experiential education approach is used to ensure the young people participating are able to experience a variety of activities and process them in their own time and through their own lens while also being exposed to, and challenged by, other world views.

Each programme is based at a marae where participants live and sleep in a communal space. This is an essential ingredient as it provides another layer of experience that many of the participants have never had. It also reflects the closer relationship Environment Canterbury has forged through the Tuia project with the Ngāi Tahu Papatipu Rūnanga within Canterbury. Participants hear from local kaumātua about local history, about the importance of waterways to them for mahinga kai and learn something of marae tikanga through pōwhiri, manaaki, and mihi.

The format for each day follows this general pattern: a formal seminar where they hear from various experts, an active session such as a planting with the Department of Conservation or a field excursion, group discussions, shared meals, and an evening reflection session. Experiences are an effective way of developing in the participants a sense of connection with place and with the issue(s), while also developing their critical and creative thinking skills and action competencies. There are a number of sessions within each programme that develop the leadership skills and confidence of the participants so that they are better able to exercise their “citizenship muscles” (The Story of Stuff, n.d.) today and into the future. The concept of “citizenship muscle” comes from The Story of Stuff stable of change-maker activities, providing useful tips on how to re-engage as citizens and work collectively for change.

Initially, however, we have to work with the participants to challenge the expectations or assumptions they hold that they need to provide “correct answers” or find immediate solutions to problems. In effect we reassure them and ask them to delve into the topic, ask questions, challenge assumptions and test their emotional engagement with the issue(s) in order to gain some insight into the wicked problem of water management in Canterbury.

Many comment that they feel overwhelmed by information, different perspectives and varied experiences, but the daily reflection cycle helps them process the material and so construct new knowledge and understanding for themselves. For many of the young people it is the first time they have totally immersed themselves in learning and thinking about a resource-management issue. It is rare to have curriculum courses focusing on particular issues for such an extended time, hence “beyond-school” opportunities like this offer vital extensions for interested students. The process of learning together and sharing knowledge, often transferred from other learning areas, demonstrates the power of ako—the reciprocity of learning.

At the end of each programme, the young people present their impressions, ideas, and thoughts about water-management issues to an invited audience of councillors, commissioners, MPs, their school principals, teachers, fellow students, and whānau. Over the past 4 years some students have taken decision-makers to task over some of the policy decisions they have made, the effects of which may not be seen for 25–30 years. They are concerned that some decisions may become future problems that they will need to address when they are 46 year olds. In that respect, these young people are very future focused!

Feedback

We have collected feedback from programme participants every year. Many go on to further study in resource management, environmental law, conservation and related fields, or opt to be appointed to water zone committees or stand for election as regional or city government councillors in the future. Those already at tertiary institutions find the experiences during the programme help sharpen their focus on sustainability within their studies, and encourages them to “step-up” as active citizens.

“The world is facing many wicked problems (Jordan, Kleinsasser & Roe, 2014); that is, those problems that have no easy solution. They are often highly complex and value-laden with contested perspectives. Facing up to wicked problems or significant issues requires new ways of working and new modes of thinking. One of Canterbury’s most pressing wicked problems is water management ...”
Education for sustainability

By providing such opportunities for young people it is hoped they will gain a lifelong passion for the environment, and a willingness to look after it as kaitiaki or stewards. There is an element of engendering behaviour change through exposing the participants to the reality of the issues. To that end, we use the experiential education learning cycle which can be applied to all activities where students learn through doing. We know from the writings of Dewey (1933) and Kolb1 that students need to process experiences and information in order to derive meaning from it and to construct new or deeper knowledge associated with it (see Figure 1).

One aspect of experiential education is the development of action competence. It is seen as a key aspect of EfS and refers to students’ abilities to become active participants with reference to environmental concerns; this includes the ability to identify problems, make decisions about solutions, and take action on environmental issues. Developing young peoples’ action competence is essential to the promotion of democratic and participative thinking and behaviours (Jensen & Schnack, 1997; Mogensen & Schnack, 2010) and the work by Eames et al. (2006) has provided our Youth Engagement team with some insights into effective pedagogical approaches that support the development of students’ action competence. James’ (2015) research has also influenced how discussion of this aspect is facilitated within our programmes as she finds that “environmental governance in New Zealand is currently on a trajectory that is detrimental to social-ecological systems and the environment and wider society are in some instances

---

**FIGURE 1. KOLB’S EXPERIENTIAL LEARNING STYLE THEORY**

**FIGURE 2. THE ADAPTIVE MANAGEMENT PROCESS (ECAN, 2011/2012, P. 127)**
being adversely affected by actions associated with the powerful growth and prosperity discourse”. Exposure to contested ideas and informed analysis that question assumptions such as economic growth is important for developing critical thinking skills and other competencies our young citizens if they are to tackle wicked problems of water management long term.

An understanding of scientific and technical aspects of ecology and natural-resources management within a catchment is also important and student gain skills of scientific literacy, understanding the life-supporting capacity of natural resources to inform debate (Ponzio & Enfield, 2004, p. 30).

Other speakers and facilitators of activities within the programmes provide insights into conservation techniques, the principle of subsidiarity (devolved local decision-making), nurturing our commons, and also of the economic benefits of conservation and restoration. In other words, the participants all get a deeper appreciation of the complexity of a water-management process that is attempting to meet the sometimes conflicting objectives of socioeconomic development, biodiversity protection, and sustainable resource utilisation.

Finally, understanding the adaptive management process is an essential ingredient of the programmes; it is the process that sits at the core of the CWMS. It frames the way of working, the critical thinking skills and social competencies young citizens need to tackle wicked problems. We find that the young people understand it immediately as it is similar to the inquiry-learning model they are used to applying within school, that is, research–plan–do–review or act. The critical element is that it is an iterative cycle full of “unknown unknowns” as well as “known unknowns”, hence the precautionary principle is very much alive and well within this process. It is clear from the discussions we hold during the programmes that this is a real concern for the young people. The fact that the results of decisions made today about natural resource use may not be seen until they themselves are well into adulthood means decisions must be comprehensively informed by science, by local community knowledge, and by local Māori knowledge and tikanga.

Conclusion

Towns and communities across New Zealand will require a continual pool of competent, actively engaged, scientifically literate citizens ready to take a role on committees or councils. The vision of The New Zealand Curriculum that young people “will be confident, connected, actively involved, and lifelong learners” (Ministry of Education, 2007, p. 8) suggests that there is an intention that schools develop young people as citizens. The learning processes necessary for that cannot be done by schools alone, in isolation from the community or societal structures in which they sit hence
the outreach role many councils take when interacting with schools and educators.

Returning to Bolstad’s questions that we started with; the Youth Engagement team takes a future-focus approach in all its work and is driven by the belief that it “takes a village to raise a child”.

The responsibility to create a sustainable future rests on all our shoulders. We encourage schools and educators to connect with appropriate partner organisations like local and regional councils to create experiential learning experiences and opportunities for young citizens in their area.

Notes

1. See http://infed.org/mobi/david-a-kolb-on-experiential-learning/
2. The commons are cultural and natural resources held in common, not owned privately, and accessible to all members of a society. Includes such as things as air, water, and a habitable earth.

References


Jocelyn Papprill is a youth engagement advisor at Environment Canterbury and was a social-sciences teacher for 25 years, working in a range of schools in New Zealand and the United Kingdom. She also runs her own educational consultancy, Sustain Ed (jyc497.wixsite.com/sustain-ed) from her home in Christchurch.

Email: jocelyn.papprill@ecan.govt.nz