



Big Ideas

Reach touch and teach



Terry Borton

Reach Touch and Teach, published in 1970 by an American school teacher, describes an experiment in education at Richmond Union High, 'an integrated school of three thousand in an industrial city across the bay from San Francisco' (Borton, 1970, p.3). In many ways, it is a book of its time, filled with accounts of open learning experiments (complete with photographs), idealised statements of intent and examples of students' creative writing and artwork. Its aims are summed up in the opening sentence of the preface:

This book describes my attempt to *reach* students at basic personal-ity levels, *touch* them as individual human beings, and yet *teach* them in an organized fashion ... to make school as relevant, involv- ing, and joyful as the learning each of us experienced when we were infants first discovering ourselves and our surroundings (Borton, 1970, p.vii).

The extent to which these aims should or could be applied in the twenty-first century university is open to question. Many would argue that reaching out to students and touching them (metaphorically, of course) as individual human beings is not the business of higher education, and I have yet to read a university mission statement which aspires to making the students' learning experience as joyful as that experi- enced when they were infants.

However, Borton's aim of attempting to reach out and touch stu- dents whilst teaching them 'in an organised fashion' marked it out as perhaps more pragmatic than many other similar books of the time, such as Carl Rogers' *Freedom to Learn* or A.S. Neil's *Summerhill*. This aim is explicitly addressed towards the end of the book, particularly in a chapter called *Process Concerns*, which attempted to develop a theoret- ical model for a process curriculum based around the psychological theory of human information processing (HIP).

HIP emerged during the 1960s as a development from, and a reac- tion against, the behaviourist model of the human mind as a 'black box' about which nothing can be known. For the behaviourists, all that needs to be studied is the input to the box (stimulus) and the output (response). HIP employed the analogy of the human brain as a comput- er and attempted to open up the black box and model the processes occurring inside it. Borton hypothesised 'three basic information pro- cessing functions' within the behaviourists' black box, which he referred to as 'Sensing', 'Transforming' and 'Acting'. He also noted the importance of feedback loops in the way that we interact with our environment, particularly with regard to the actual and intended effects arising from the Acting function (Fig. 1).

This model translates into a process curriculum based firmly on experience (Sensing), sense-making (Transforming) and engagement with the world (Acting). Borton operationalised this model by ascribing

to each function a 'colloquial question which best seemed to catch its meaning'. These were:

"What?" for Sensing out the differences between response, actual ef- fect, and intended effect; "So What?" for Transforming that informa- tion into immediately relevant patterns of meaning; "Now What?" for deciding on how to Act on the best alternative and reapply it in other situations. This What, So What, Now What sequence became the model on which we built a curriculum designed to make stu- dents more explicitly aware of how they function as human beings. (Borton, 1970, pp. 88–9).

This last point is particularly important; Borton's process curriculum was intended not only to help his students to acquire relevant knowl- edge about the world, but also *to learn how they learn*, what Schön would later refer to as 'double loop learning'. Furthermore, the introduc- tion of feedback loops from Acting (Now What?) back to Sensing (What?) transform it from a linear model which moves through the syl- labus item-by-item into a spiral where topics and issues are revisited until curiosity is fully satisfied and puzzles are resolved.

So, for example, a young child might notice through her play that when she taps glass bottles containing different amounts of water, they emit sounds at different pitches (*What?*). The puzzlement arising from this experience would be brought to the class and made sense of through discussion and theorising (*So What?*). The students might initially think that the difference in pitch is caused by the different amounts of water in the bottles and might act by experimenting with different sized bottles (*Now What?*). Eventually, through guided discus- sion, they will realise that the critical variable is not the amount of water, but the amount of air in the bottle, and that less air produces higher notes (*What?*). This new insight might then generate a more general hypothesis that smaller things produce higher frequency sounds (*So What?*) which could be tested by acting on the world and gathering feedback, for example by plucking strings of different lengths (*Now What?*).

Applications

Despite (or perhaps because of) its practical and pragmatic ap- proach, *Reach Touch and Teach* made very little impact on the world of education when it was first published in 1970 and quickly sank into ob- scurity. The focus of the second part of this 'Big Ideas' essay is therefore not on how Borton has influenced nursing and nurse education in general, but rather on how his book has informed my own work.

I first stumbled upon his remarkable little book in the early 1990s when I was writing a new graduate-entry Project 2000 course for

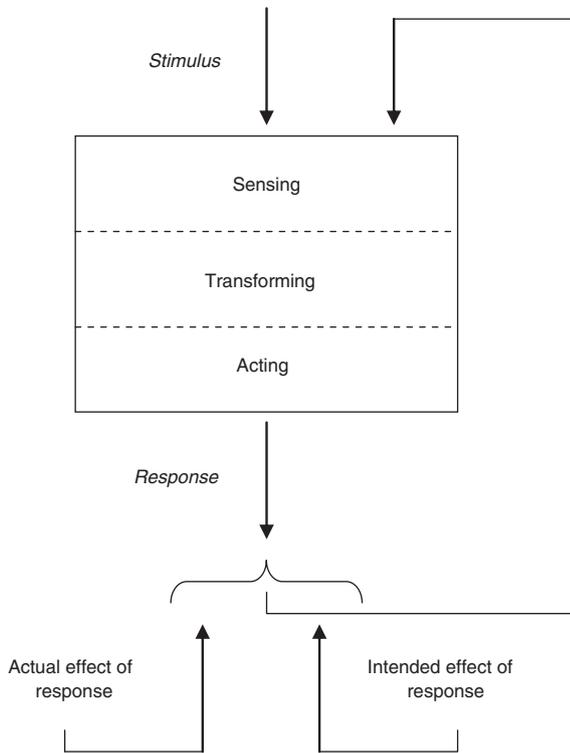


Fig. 1. A process curriculum model.
Borton (1970), p. 79.

nurses. Although Borton was concerned primarily with teaching school-age children, it seemed to me that the ideas in *Reach Touch and Teach* could be applied equally to university students, and my colleague Melanie Jasper and I set about incorporating Borton's model in a process-driven spiral common foundation curriculum that we were writing for our graduate-entry students (Jasper and Rolfe, 1993; Rolfe and Jasper, 1993). This curriculum guided the students through a series of predetermined topic areas specified by the Project 2000 syllabus but allowed each of them to identify puzzles relating to the topic which they had encountered during their clinical placement. These puzzles were discussed and theorised in the classroom with their colleagues and in an ongoing workbook, and their theories and hypotheses taken back to their placements to be tested out.

It quickly became apparent to me that, when applied to students from practice disciplines such as nursing, Borton's *What, So What, Now What* sequence of reflective education also functioned very well as a framework for reflective practice. In particular, it steers the practitioner through the process of analysing, evaluating and synthesising information and facts (What?) into meaningful and organised knowledge (So What?) and subsequently from knowledge to knowledgeable doing or wise action (Now What?). This three-stage framework (Fig. 2) was field tested in a critical reflection course I was teaching on a Masters in Advanced Professional Practice programme, and subsequently published in the text book that derived from the course (Rolfe et al, 2001).

Although I developed the framework as part of an analytic problem-solving approach to reflective practice, Borton suggested a wider application. Thus, he claimed that the *What? So What? Now What?* questions can be asked 'in two quite different manners':

The first is the *analytic* mode with which most of us are familiar – hard-driving, pointed, sharp, logical, tough, and rigorous. But it is difficult for people to change if they are put under much pressure, so

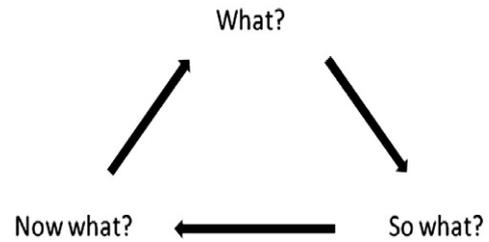


Fig. 2. Rolfe's framework for reflective practice.
After Borton (1970).

we also employ a *contemplative* mode, a more relaxed approach which avoids picking at one's self and allows alternatives to suggest themselves through free association and metaphor. (Borton, 1970, p.89).

Following on from Borton's observation, there is no reason why the framework cannot also be used to promote and develop the use of free association and metaphor through reflection; in fact, several approaches already do so. For example, Gillie Bolton (2005) devoted an entire chapter of her book *Reflective Practice* to metaphor and poetry, and the later iterations of Johns' model of guided reflection have adopted a more meditative Zen-like approach to reflection (Johns, 2006).

Conclusion

Terry Borton drew on his experiences of teaching and running workshops during the 1960s to develop a process model of education based on three simple questions. Although it was never intended as a theory of learning, Borton's model anticipated and pre-dated the experiential learning cycle of Kolb and Fry (1975) by several years, with Kolb and Fry's elements of reflective observation, abstract conceptualisation and active experimentation closely mirroring Borton's *What? So What? Now What?* questions. Furthermore, although it did not claim to be a general framework for reflection, it anticipated the reflective models of Gibbs (1988), Johns (1995) and others by two decades or more. For these reasons alone, *Reach Touch and Teach* deserves far greater recognition than it currently receives.

References

- Bolton, G., 2005. *Reflective Practice: Writing and Professional Development*, Second edition. Sage, London.
- Borton, T., 1970. *Reach Touch and Teach: Student Concerns and Process Education*. McGraw-Hill, New York.
- Gibbs, G., 1988. *Learning by Doing: A guide to teaching and learning methods*, Oxford Centre for Staff and Learning Development. Oxford Polytechnic.
- Jasper, M., Rolfe, G., 1993. A framework for a process-driven Common Foundation Programme for graduates. *Int. J. Nurs. Stud.* 30 (5), 377–385.
- Johns, C., 1995. Framing learning through reflection within Carper's fundamental ways of knowing in nursing. *J. Adv. Nurs.* 22 (2), 226–234.
- Johns, C., 2006. *Engaging Reflection in Practice: A Narrative Approach*. Blackwell Publishing, Oxford.
- Kolb, D., Fry, R., 1975. Towards an applied theory of experiential learning. In: Cooper, C.L. (Ed.), *The Theories of Group Processes*. John Lilley and Sons, London.
- Rolfe, G., Jasper, M., 1993. Some strategies for curriculum development in nurse education. *J. Furth. High. Educ.* 17 (3), 105–111.
- Rolfe, G., Freshwater, D., Jasper, M., 2001. *Critical Reflection for Nursing and the Helping Professions: A user's Guide*. Palgrave, Basingstoke.

Gary Rolfe
Swansea University, UK
E-mail address: g.rolfe@swan.ac.uk.