

Reflection on practice: Professional renewal or additional pressure?

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Introduction

The lack of a considered and reflective commentary on botanic garden education has had a significant impact upon the visibility of botanic gardens in both policy and research arenas. In response to this low profile Willison (1997) has argued that *'by encouraging educators to question their own programmes – and even to embark on their own research – we believe that botanic gardens would be well placed to help shape the nature of the debate rather than trailing behind'* (Willison 1997 pp. 2–3). Further to Willison's argument, a major stimulus for reflecting on practice is the perceived challenge of curatorial voices which allude to education as a key role, but appear not to have a clear vision of how that role might interweave coherently across the broader scientific and horticultural remits of their gardens (Touchell and Dixon 1997, Sanders 2004). Botanic garden educators are often isolated from their peers (Foster 1997) and in many institutions have a laden portfolio of tasks. In cases like these embarking on a reflective journey may appear to be too onerous a proposition, one that might be considered an added pressure rather than a source of professional renewal. This paper considers these challenges by anchoring them in the doctoral research journey of one botanic garden practitioner.

The reflective journey

Reflecting on one's practice is a journey not without obstacles and challenges. For many botanic garden educators a key issue is that, *'a teacher researching herself is unable to determine the extent to which the effect was due to the method, her enthusiasm for the method, her rapport with her students or a host of other potential variables'* (Elliot 1991 p.110). Being an educator and researcher simultaneously can also create the challenge of developing, *'the ability to distance oneself from the struggles of the everyday experience of the classroom'* (Walford 2001 p. 113). Despite these issues, engaging in research offers opportunities to:

- question practice
- develop evaluation and research skills
- use the resultant knowledge to create a more 'evidence-informed' approach
- create a higher profile for botanic garden education across scientific and educational communities
- form 'critical friendships' with colleagues and academic partners.

Developing pedagogical dialogues

My own doctoral study considered how botanic gardens explore a range of institutional and societal identities, and more specifically, considered the role of botanic gardens in promoting their use for educational purposes. The primary question addressed by the research was: Are

botanic gardens perceived as environments for learning, or are they ‘walled, stranded arks’ with few key holders?’

A key finding to emerge from my study was the presence of two contrasting models of teaching and learning in botanic gardens: the student centred self-exploration model and the teacher-led didactic model. Student and teacher participants in the study (Sanders 2004) were clear in their understanding that both of these learning cultures could form part of an educational visit to a botanic garden, as were garden educators. Furthermore, evidence from historical sources affirmed the previous existence of pedagogical models of both types of teaching and learning in botanic gardens (Sanders 2004). However, despite this evidence the challenge remains in many gardens to create ‘a small corner of anarchy’ (Hart 2003 p.19) where children can explore and experiment freely, particularly when the dominant aesthetic is ‘the orderly growing of plants’ (Hart 2003 p.20). Other findings suggested that botanic gardens still struggle to adopt an educational role in ways that permeate the scientific and horticultural work of their institutions (Sanders 2004).

After conducting the study, an additional challenge presents itself, one of how data are shared and used in the botanic garden community, for as Elliot (1991) has observed, ‘*such data sharing promotes a reflective conversation and is at the heart of any transformation of the professional culture. But it carries the risk of bringing latent conflicts and tensions out into the open*’ (p.61). Sharing the resultant data of botanic garden practitioner studies stimulates debate on pedagogical practice in botanic gardens and might even initiate deeper dialogue between practitioners and decision-makers, ultimately creating the possibility of fresh approaches to learning. In presenting this evidence to botanic garden staff it is vital that a forum between educators and horticulturalists takes place, otherwise the situation might arise where education departments are viewed as ‘*a thorn in the side of the institution*’, as one education staff member from the study sample gardens suggested (Sanders 2004).

But how might practitioner research be fostered in a culture where educators are often isolated from their peers (Foster 1997) and dealing with demanding workloads? How can reflective practice be built into the common day? Constructing partnerships within, between and across communities can provide a solution to this professional estrangement.

The contribution of critical friends and research networks

According to McMeniman *et al.* (2000) there are two central elements to building research cultures in educational settings. The first is the existence of ‘research-orientated’ colleagues *within* the community, and the second is the support of *external* researchers who can offer a guiding light. By forming partnerships with external research partners and by collectively engaging in reflective practice, botanic garden educators can construct and situate a research-engaged practice more centrally in botanic garden culture, and through this develop a stronger body of evidence on the impacts of education within botanic garden settings.

During my own doctoral journey I participated in a UK regional environmental research network called FERN, which had extensive links with Danish and Swedish researcher groups. In addition I developed a ‘critical friendship’ with a botanic garden colleague also conducting post-graduate research. Costa and Kallick (1993) define a critical friend as ‘a trusted person who asks provocative questions, takes time to fully understand the context of the work presented and the outcomes that the person or group is working towards, an advocate for the success of the project’ (p. 50).

By conducting research, engaging in research networks and participating in ‘critical friendships’ I would suggest that it is possible to develop a wider sense of professional practice and that, over time, this can be transformed into a reinvigorated professional identity.

A vision of learning

If botanic gardens are to play a more prominent role in the learning communities of the future (Sanders in review), then education policy-makers need to be provided with evidence on how the botanic garden can offer a vision of learning that aligns with current policy developments, critical to this provision is the need for botanic garden leaders and educators to keep themselves informed of the contributions that their gardens can make; research evidence can inform these practice/policy conversations (Saunders 2004).

If ‘today one of the strongest calls is for botanic gardens to be educational’ (Given 1997 p.90 in Touchell and Dixon) then reflection on practice, in the form of empirical evidence and theoretical perspectives, is vital to further institutional debate both within and between botanic gardens. Creating practitioner and researcher networks, which strengthen the capability of lone educator/researchers to conduct studies, are an important element of moving from a community dominated by tacit knowledge to one which is research-engaged.

Since Willison made her comments there has been a steady rise in educational research activities in botanic gardens around the world, conducted by teacher/researchers working in these gardens. However, individual practitioners working towards postgraduate degrees have predominantly carried out these studies. Therefore, how their studies could be used by botanic gardens has yet to be fully determined. Nevertheless, it is important to document this shift and celebrate the continuation of Willison’s ‘encouraging signs’ (1997) of practitioner research. But there are still many questions to be explored in this unique context and little study, with a few exceptions (Tunncliffe 2001) has been conducted by external researchers.

A critical question to emerge from my study and one that could be explored by future research is; to what extent is botanic garden learning supporting or challenging the learning pupils undertake in the classroom? Furthermore, how is this learning integrated into pupils’ indoor learning and *visa versa* (after Rickinson et al 2004).

Conclusion

In conclusion, I suggest that much work still needs to be done, both within individual gardens and by the botanic garden networks, to develop a more research-engaged practice. Garden management plans need to be conceptualised in ways that value educational research both as a practice and as a body of knowledge. Greater attention could be given to educators’ individual development plans to embrace research as part of their roles. Networks could assist individuals support each other as ‘critical friends’ and catalyse connections with external academic partners. With these kinds of support frameworks in place practitioners might then find that reflective practice is a source of professional renewal rather than an onerous proposition.

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