

Exploring the Role of the School-Community Relationship as an Enabling Factor in Environmental Learning

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Agricultural and educational researchers recognize the critical value of an integrated, multidisciplinary approach to education in building a food-secure world, reducing poverty, and conserving and enhancing natural resources. However, schools generally contribute little to communities in the context of food gardening and environmental learning. The main objective of this qualitative research was to explore the role of school-community relationships in enabling environmental learning in the context of school-community food gardens and agroforestry activities. Preliminary findings suggest that the role of school-community links in enhancing environmental learning is variable. An active involvement of community members in school programs is likely required, with an emphasis on an experiential learning approach. However, this depends to a large extent on the availability of parents or concerned community members and their willingness to engage in voluntary school-based activities. Factors that could potentially strengthen the role of school-community links in supporting environmental learning include: allowing space for informal learning, mediating learning in civil society settings, ongoing facilitation by a committed coordinator, community buy-in and accountability, and addressing public interests through tangible benefits.

Background

Research suggests that the majority of primary and secondary school children in rural areas in southern Africa end up farming and trading in agricultural products (Temu 2004). Because of some resistance to agricultural programs in schools or inadequate instruction, however, primary and secondary school graduates have lower levels of practical knowledge and experience than their parents. Agricultural output is impacted, which, in turn, has implications for food security, nutrition and health.

Vandenbosch et al. (2004) recommend an approach that integrates agricultural education and “Education for Sustainable Development” to address poverty, food security and health, supported by contextually relevant curricula and learning support materials, active and experiential learning, and school-community links. However, there is limited evidence to link the quality or relevance of education with improved agricultural production. It would seem, therefore, that education researchers and practitioners should be open to new ways of responding to sustainability challenges in the agricultural sector and to strengthening the educational focus of food gardening projects in the Southern African Development Community (SADC) region and beyond.

The objective of this qualitative research was to explore the school-community relationship and its role in enabling environmental learning in the context of school-community food gardens, agricultural and/or agroforestry activities, referred to generically as “food gardening.”

More specifically, the following issues were explored: 1) what motivates schools to grow and/or harvest food plants; 2) whether or not it is feasible to incorporate agricultural practices into learning programs; 3) what conditions promote inter-generational learning and mentoring; 4) in what ways community-based knowledge and agricultural practices are integrated into environmental learning, whether formally or informally; 5) how scientific knowledge and research are integrated into environmental learning, whether formally or informally; 6) how formal learning contributes to school children’s futures; 7) what learning support materials educators in rural areas use; 8) what learning support materials educators in relatively economically disadvantaged urban settings use; and 9) the key ingredients for sustained, effective and relevant food gardening projects.

Methods

Exploratory studies were undertaken in South Africa, Malawi and the United States. In all cases, the specific characteristics of the sites included food gardening activities with an educational component. The sampling approach used in this research was primarily ‘purposive’, in the sense that specific organizations and individuals were selected by the researcher, in line with the research aims. In some cases, sampling was reliant on the availability of subjects at the time of a field visit. At other times, a selected participant would suggest making contact with another suitable subject, resulting in the addition of new research participants – a form of ‘snowball sampling’

(Babbie and Mouton 2001). The sampling frame for this study was fairly broad, involving groups and individuals closely and loosely affiliated to gardening activities with an educational component. Included in the study were members of youth groups and adult members of community groups involved in food gardening activities, as well as the educators and/or educational project coordinators involved, in some way, with those food gardening activities. The constant in the research was thus the element of being involved in food gardening. Variables included age, gender, and the nature of involvement in food growing.

To draw from a number of different sources of data, this study used several research methods that enable close interaction between the researcher and participants – interviewing, observation, document reviews, and unobtrusive measures – all of which are commonly associated with the ‘human-as-instrument’ in qualitative research (Lincoln and Guba 1985). Such methods support the emergence of multiple perspectives in the interpretations of meanings (hermeneutics), coupled with a ‘dialectical’ approach – one which draws attention to conflicting perspectives and requires amendment of ideas – and hence to the ‘social construction of reality’ (Mertens 2005). In this research, interviews were mostly semi-structured, and in most cases, appointments were first made with interviewees. The researcher referred to a previously drafted, but flexible plan of inquiry – the interview guide – with open-ended questions (Arksey and Knight 1999). The main concepts of the study were initially explored in the South African (Grahamstown) context and then refined for use in Malawi (southern areas) and the USA (New York City). All interviews and observations were recorded and then fully transcribed.

Personal reflections and comments on observations were recorded on an almost daily basis in an electronic journal. The journal also served as a method of recording, to some extent, ‘unobtrusive informational residue’ – physical traces that indicate activities or phenomena, such as frequency of use or level of care or interest in a particular topic (Lincoln and Guba 1985). Three ‘primary documents’ – one each from South Africa, Malawi and the USA – were housed within a ‘hermeneutic unit’ and analyzed using a Computer-Aided Qualitative Data Analysis Software (CAQDAS) program, ATLAS.ti 5.2.0, using a ‘grounded theory’ approach (Babbie and Mouton 2001). The research process could be described as an iterative process, in that there was an ongoing and developing understanding of theoretical perspectives and practical applications.

Data were coded and clustered into six main “code families”, or themes:

Pedagogic approach. School-community links influence the way in which teaching and learning takes places (curriculum has three aspects: pedagogy, context and content).

Place for learning. Food gardens provide a natural and socio-cultural setting (context) for learning.

Cultural factors. Cultural factors influence perceptions of a food gardening project, the level of participation in its activities, and, hence, the way the project is structured. This will influence the curriculum content and the nature of learning.

Organizational structure. The way in which the project is managed or how the supporting organization is structured influences the nature of school-community links.

Reasons for food gardens. Incentives, some of which are culturally-based, influence the establishment of food gardens.

School-community links. The activity or structure through which a school has some kind of link to the broader community may act both as a conduit and as a process that influences the role of food gardens in learning.

Preliminary Findings

Preliminary findings indicate that a number of categories are of particular significance to the role of school-community links in environmental learning:

- 1) In most cases, gardening and related learning activities have a focus on health issues or on ways of promoting better **health and nutrition** and/or health services in the community;
- 2) The provision of **equipment, expertise or funding** facilitates food gardening and related learning activities;
- 3) **Partnerships** with support groups or organizations influence the focus of food gardening and related learning activities;
- 4) Aspects of food gardening and related learning activities have a **cultural focus** and are linked to cultural values or traditions;
- 5) In many cases, food gardening and related learning activities are linked to **economic incentives**, arising out of the need for income, or linked to the sale of produce in the form of value-added items and nutritional supplements;
- 6) In most cases, attempts are being made to link food gardening activities to **education or training**;
- 7) In some cases, food gardening activities involve **alternative or environmental technologies**, such as recycling and solar energy, or biotechnologies such as agroforestry, composting, and algal harvesting;
- 8) Food gardening and related learning activities with an **environmental agenda** may or may not result in a better understanding of the environment and/or ecological processes;
- 9) In the context of food gardening activities, there is a “**multiplier effect**” or the recruitment of new partners or participants. This may be as a result of school-community links, demonstrations, distribution of seedlings, extension work (including voluntary efforts), role-modeling, and intergenerational learning, amongst others;
- 10) Food gardening and related learning activities

draw on community-based/local/traditional/**indigenous knowledge** – which complements formal knowledge from books or ‘experts.’ It should be kept in mind that there are overlaps; citizens also have formal expertise, and experts have informal expertise (citizens-as-experts and experts-as-citizens); 11) Food gardening and related learning activities sometimes involve a **community organizing approach**, in which participants with a shared interest in finding solutions build relationships, create alliances to solve problems, and take action; 12) Where food gardening and related learning activities include an element of choice or **decision-making**, participant buy-in is promoted, as well as a sense of self-esteem; 13) Food gardening and related learning activities may be associated with a sense of **responsibility or accountability**. This is promoted by the allocation of care-taking tasks, program criteria, monitoring (including reciprocal forms), and stimulating critical engagement with surrounding social structures; 14) In some cases, food gardening and related learning activities enhance or show the potential to promote **personal development** or psychological well-being, or may provide remedial/therapeutic services. This may be linked to gardens serving as safe places for community engagement and/or direct experiences with natural processes, or the affirmation of individuals bringing their cultural perspectives to the process.

Several categories drew attention to potential threats that may affect the role of school-community links in environmental learning, including the following:

Outside intervention. If the initiating steps in food gardening and related learning activities are introduced from an outside individual, group or organization – as opposed to the stakeholders initiating the project themselves – participants do not necessarily take responsibility for making decisions. This may be seen as a prescriptive or ‘top-down’ approach, which may be linked to a cycle of dependency.

Dependency. If communities become accustomed to receiving assistance or support and donors become accustomed to targeting needy communities, a ‘cycle of dependency’ may be established. It may be that the inability of a community to initiate a development process is linked to the agenda of donors who are dependent on needy communities in order to fulfil their mandate of providing development aid. This undermines the potential of impoverished communities to achieve self-empowerment and dignity, or create sustainable solutions.

Rivalry. Rivalry and competition for resources, rather than collaboration, may undermine food gardening and related learning activities. This may be associated with unwillingness to share resources, desire for full control, clashes among donors or support agencies, fear, insecurity and lack of self-efficacy in individuals managing a process, or avoidance of structures that demand accountability.

Formal curriculum. Working with a formal school curriculum presents challenges to food gardening and related learning activities. This may be linked with lack of teacher capacity and the absence of garden-based learning support materials or accreditation. However, excessive emphasis on formal standards and tests may also undermine meaningful environmental learning and action.

Preliminary findings also suggest that the role of school-community links in enhancing environmental learning in food gardening settings is variable. The following factors appear to be especially important:

Community-initiated projects. In the context of food growing activities, community-initiated projects support a degree of community buy-in and accountability. Where these are linked to school programs, the involvement of community members facilitates intergenerational learning. It depends to a large extent on the availability of parents or concerned community members and their willingness to engage in voluntary school-based activities. It presents opportunities for creating links between traditional/community-based knowledge and science.

Committed and knowledgeable facilitators. A facilitator who is knowledgeable and committed to providing sustained input and supporting community development is of particular value. Where s/he is in a position to move comfortably among the different elements of the total learning experience, s/he is able to mediate between community-based knowledge and science and integrate informal, flexible, participatory learning and formal education.

Democratic processes with community interests at heart. In the context of civil society settings, such as food gardens, facilitation that prioritizes community benefits and promotes collaborative problem solving will support meaningful and sustainable community development.

Practical Implications

Food gardens offer diverse opportunities for improving ecological literacy. Drawing on Edwards’ (2005) framework of civil society, the following strategies are tentatively recommended, in order to strengthen the role of school-community links in supporting environmental learning in food gardening settings:

Voluntary association. A communal food garden, supported by the voluntary participation of adults and children, has the potential to serve as an example of a healthy associational ecosystem that fosters values such as tolerance and cooperation.

Institutional collaboration. Coordinated and democratic action ensures that the contributions of all stakeholders

are taken into account and guards against privileging one perspective over another. This is supported by collaboration at an institutional level, for example, between local educational and governmental structures.

Argument and deliberation. In order to reconcile different perspectives, develop shared interests, and achieve political consensus regarding the best way to move forward, argument and deliberation in the context of a communal food garden (the public sphere) serve to integrate associational life and institutional collaboration, thereby promoting democratic processes that meaningfully address poverty-reduction and environmental sustainability imperatives.

The final step in this project will be the development of a conceptual framework, drawing on a multi-pronged, multidisciplinary and integrated approach to learning, to promote the notion of an ecological community of learning and action for sustainability. Factors that might strengthen the role of school-community links in supporting environmental learning include: allowing space for informal learning, mediating learning in civil society settings, ongoing facilitation by a committed coordinator, community buy-in and accountability, and addressing public interests through tangible benefits. Bearing in mind the exploratory nature of this research and in keeping with scientific thinking, it should be noted that all recommendations are tentative.

Further Reading

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