

Building community capacities in evaluating rural IT projects: Success strategies from the LEARNERS Project

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ABSTRACT

Given the current emphasis on the benefits of communication and information technologies (C&IT) for sustainable rural community development, effective evaluations of C&IT initiatives are increasingly important. This paper presents outcomes of a project that aimed to build capacities of people in two Australian rural communities to evaluate C&IT initiatives. The project's participatory action research and participatory evaluation methods were effective in increasing skills and knowledge, and facilitating various forms of empowerment. However, some limitations and disempowering effects and barriers to participation were identified. Based on our critical reflections, we present strategies for successful community capacity building projects and sustainable C&IT initiatives in rural areas.

Keywords: *Building community capacities; participatory action research; participatory evaluation methods; LEARNERS Project; rural communities.*

INTRODUCTION

This paper aims to provide critical insights into the complexity of building community capacities, to evaluate communication and information technology (C&IT) initiatives in rural communities, and to suggest success strategies for future capacity building and C&IT projects. From the results of the 'LEARNERS' project, we make a case for using participatory action research (PAR) (McTaggart 1991; Wadsworth 1998) and participatory evaluation methodologies (Brunner & Guzman 1989; Papineau & Kiely 1996; Rebien 1996) in community capacity building and C&IT projects. We outline the unintended and disempowering, as well as the intended and empowering impacts and outcomes of the project for the rural participants and their communities, along with barriers and issues that can hinder the success of capacity building projects.

The LEARNERS project (Learning, Evaluation, Action & Reflection for New technologies, Empowerment and Rural Sustainability) was conducted from 2001 to 2004 by an inter-disciplinary research team from Queensland University of Technology in Brisbane, Australia.¹ We conducted this project in close collaboration with people and organisations from two rural Shires in southern Queensland and five industry partners from the Queensland and Commonwealth public sectors. A full description of the project and its outcomes is provided in Lennie et al (2004).

The project implemented and rigorously evaluated the use of a capacity building framework known as 'the LEARNERS process' (see Figure 1) by representatives of organisations and groups and community members in the Tara and Stanthorpe Shires. The project aimed to build community capacities in planning and evaluation and through workshops, teleconferences and other activities. These activities sought to facilitate broad community participation in planning and conducting evaluations of local C&IT initiatives such as community websites and information literacy programs. Using PAR and participatory evaluation methodologies and methods, the

project aimed to increase collaboration and cooperation between community groups, to be empowering for participants, and to increase informal leadership skills, particularly for rural women.

The framework which we later labelled 'the LEARNERS process' was developed as part of an earlier pilot project which involved an extensive literature review and conducting focus groups with rural and regional participants to obtain feedback on a prototype evaluation capacity building framework (Lennie, Lundin & Simpson 2000). This project identified that the long-term sustainability of C&IT initiatives was a major issue for rural and regional communities and that better planning, coordination and evaluation of these initiatives was required.

The LEARNERS research team adopted an inclusive 'whole of community' perspective that focused more on the human than the technological infrastructure, and took the local and global context, and the many complex issues and factors involved in achieving sustainability into account. We adopted a critical approach which questioned assumptions about community participation, empowerment and the sustainability of C&IT projects. This approach recognised that there are many barriers to participation and empowerment and that a community members' choice not to participate, or to only participate in a limited way, is one that is legitimate and rational. From earlier research in this field, we also realised that participatory research can have disempowering and unintended effects (Lennie 2001; Lennie, Hatcher & Morgan 2003) and that there is a need to design and implement more rigorous methods for evaluating claims about the empowering effects of PAR projects (Anderson 1996).

Following an overview of the context of the project, including the issues that C&IT raise for sustainable rural communities, we present a rationale for using PAR and participatory evaluation in capacity building and related community development projects. We then outline the methods used in the LEARNERS project and present case studies of the trial of the LEARNERS process in the Tara and Stanthorpe Shires. These case studies provide some contextual information about the communities and their C&IT initiatives, and indicate the extent of community participation in the various project activities. A summary is then presented of the findings from our rigorous analysis of the impacts and outcomes of the project for participants and their communities and the barriers to participation that were identified. From our critical reflections on the project, we suggest principles and strategies for successful capacity building and C&IT projects in rural communities, and learnings for communities, researchers and government workers involved in related projects.

SUSTAINABLE RURAL COMMUNITIES AND C&IT

Governments and rural industry bodies have positioned C&IT as vital to community and economic development in rural Australia (Da Rin & Groves 1999; Groves & Da Rin 1999a, 1999b). C&IT includes the Internet, email, online discussion lists, community websites, teleconferencing and videoconferencing. These technologies are being used for purposes such as accessing education, health and legal services and information, and for business, entertainment, communication and networking. Initiatives such as electronic community networks, community websites and portals and telecentres have recently been established in many rural and regional communities around Australia. Research has shown that, implemented in ways that meet community needs and goals and key sustainability criteria, such initiatives can help rural communities to survive and prosper and to address the increasing 'digital divide' (Geiselhart 2004; Simpson 2001; Simpson et al 2001).

However, despite this positive focus on C&IT, many initiatives have failed. For example, of the 600 plus telecentres established in Australia since the 1990s, only 75% remain today (Geiselhart

2004). With major Australian government funding programs such as Networking the Nation winding down, the continuing feasibility of these projects requires local communities to find ways to make them self-sufficient and economically viable (DCITA 2003).

The long-term sustainability and success of C&IT initiatives is a key issue for rural and regional communities, due to factors such as limited funding and resources and the small, highly scattered populations in Australian rural areas. In addition, rural communities often rely on enthusiastic champions and volunteers to successfully maintain initiatives such as community websites. However, since many of these volunteers are already overcommitted with other responsibilities or may eventually leave the community, this situation may not be sustainable.

C&IT initiatives therefore raise many complex challenges and issues for rural community development and empowerment. Important issues for rural communities include:

- facilitating access to and adoption of new and rapidly evolving C&IT by all community groups and sectors;
- identifying the diverse C&IT access and information literacy training needs of community members and groups;
- securing ongoing funding and resources for initiatives;
- planning, developing and managing projects and initiatives; and
- evaluating what are often quite complex projects and initiatives that use new communication technologies.

Research indicates that developing effective strategies for access and participation that take differences in community needs, and the whole range of local social, economic, environmental and technological factors into account, can provide more equitable access to C&IT. Such an approach can also increase the overall sustainability and success of such initiatives (Simpson et al. 2001; The Rural Women and ICTs Research Team 1999). The value of using a 'triple bottom line' and 'whole of government' approach is demonstrated in a recent report on the sustainability of Australian telecentres (Geiselhart 2004).

Effective planning and evaluation of rural C&IT initiatives is therefore increasingly important. Indeed, our pilot research in rural Queensland indicated a considerable need for more effective planning, coordination and evaluation of C&IT initiatives (Lennie, Lundin & Simpson 2000). This research also suggested that better cooperation and collaboration among rural community organisations was required to enable more effective use of funding, resources, local knowledge and community skills and capacities.

BUILDING COMMUNITY CAPACITIES FOR SUSTAINABILITY

Building community capacities and social capital, developing 'learning communities' and increasing community participation and engagement are significant goals for governments and communities in Australia and overseas (Department of Premier and Cabinet 2002; Faris 2001; Mannion 1996; Mission Australia 2002; Woolcock, Renton & Cavaye 2004). Community capacity building has been defined as 'strengthening the knowledge, skills and attitudes of people so that they can establish and sustain their area's development' (Mannion 1996, p.2). Community capacity is seen as the ability of communities to solve their own problems, make their own decisions and plan their own futures. The aims of such programs are to increase community participation in planning and decision-making, to facilitate sustainable development by building on existing community strengths, and to create communities that are more inclusive, cooperative and self-reliant. The effective use of C&IT in these processes is seen as increasingly important.

The aim of learning communities is closely related to the goals of community capacity building. They involve community members from every sector working together to enhance the social, economic, cultural and environmental conditions of their community (Faris 2001). Engaging in formal and informal lifelong learning is an important element in building learning communities.

Sustainable communities are seen as communities that maintain and improve their social, economic and environmental characteristics so that residents can continue to lead healthy, productive and enjoyable lives (New South Wales Government 2001). The dimensions of a sustainable community include increasing local economic diversity, self reliance, careful stewardship of natural resources, and a commitment to social justice (Bridger & Luloff 1999, p.381). The LEARNERS project aimed to contribute to building community capacities, and to developing sustainable rural communities that value lifelong learning.

THE VALUE OF PARTICIPATORY METHODOLOGIES IN COMMUNITY CAPACITY BUILDING

Participatory forms of research and evaluation have been successfully used in a wide range of education and community development projects, including C&IT projects, for over 30 years (Brunner & Guzman 1989; Fetterman, Kaffarian & Wandersman 1996; Hudson 2001; The Rural Women and ICTs Research Team 1999; Papineau & Kiely 1996). However, many people in rural organisations and groups have limited skills, knowledge and experience in participatory forms of planning and evaluation. The need to build community and organisational capacities in these processes has therefore been increasingly recognised (Boyle & Lemaire 1999; Fetterman et al. 1996; O'Sullivan & O'Sullivan 1998; Khan 1998; Wadsworth 1997).

Participatory action research aims to address both the practical concerns of participants and stakeholders and the goals of research through people working together collaboratively on projects. It is a political process because it entails people making changes together that affect others in their community or organisation. PAR projects seek to enhance democracy, and individual, group, and community empowerment (McTaggart 1991). The process involves ongoing cycles of planning, acting, observing and critically reflecting on projects.

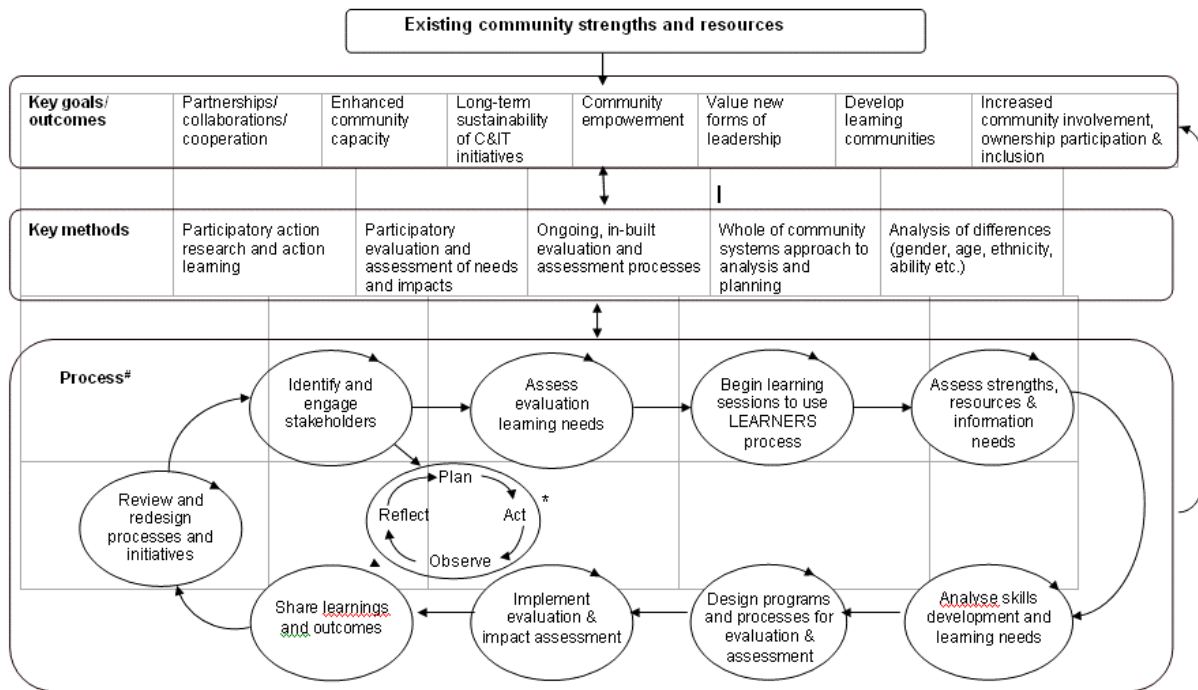
Participatory evaluations have been found to enhance the long-term sustainability and success of programs through building community capacities, and increasing community ownership, inclusion and participation (Brunner & Guzman 1989; Dugan 1996; Papineau & Kiely 1996). In a participatory evaluation, the evaluators are the participants and other stakeholders involved in a project. Researchers, or other professional staff, take on the role of methodological consultants. Participants and researchers usually jointly make decisions about the evaluation. Evaluation is seen as an ongoing learning process and an everyday activity that anyone with appropriate training can do, not just the 'experts' (Wadsworth 1997).

A key rationale for using PAR and participatory evaluation is that they can produce empowerment. This can result in an increased sense of power, confidence and control, which is often the consequence of successful action. Empowerment can happen at the level of the individual, the group and/or the community (Claridge 1996). In the LEARNERS project, empowerment was considered to be a long-term process that people undertake for themselves, rather than something that is done to or for another person. However, others such as community development workers or action researchers can provide valuable support in the process of empowerment. Power was understood in positive terms – 'power to' and 'power with' (Lennie 2001), rather than something associated with domination and control.

THE LEARNERS PROCESS AND PROJECT

Implementation and Evaluation

As Figure 1 suggests, the LEARNERS process that was implemented and evaluated in the project aims to identify and build on the existing skills, knowledge and resources in a community and to facilitate community empowerment and inclusion. Local coordinators for the LEARNERS project were therefore encouraged to invite a broad diversity of community leaders and members to workshops and other activities. People involved in or affected by the local C&IT initiatives that participants chose to evaluate were targeted in particular. Participants were also encouraged to obtain information about relevant differences such as those related to gender, age, and level of information literacy and access to C&IT when conducting evaluations. Such differences were also taken into account in our analysis of the impacts of the project.



Not all of these steps have to be followed or undertaken in this sequence. They represent activities that could potentially be undertaken by stakeholders and participants;

* Each of the steps involves a cycle of planning, acting, observing and reflecting.

Figure 1: The LEARNERS Process

In keeping with the use of PAR and participatory evaluation, the research team used a range of qualitative and quantitative methods to conduct and evaluate project activities and to regularly communicate and share information. Various forms of C&IT were extensively used in these activities. The methods used included:

- meetings, workshops, teleconferences and videoconferences involving community participants and industry partners;
- focus group discussions and individual interviews;
- workshop feedback questionnaires;
- participant observations of project activities;
- fieldwork diary entries;
- providing information via the LEARNERS project website: (<http://www.learners.qut.edu.au>);
- sharing information and obtaining feedback through two email discussion lists; and
- annual critical reflection workshops involving the research team, industry partners and key community participants.

Our use of multiple participation, research and evaluation methods provided a range of rich research data and ongoing feedback, which enabled rigorous validation of the findings and the data analysis. Most of the qualitative data was entered into the NVivo program where it was coded and analysed. Coding an analysis of project impacts used the framework of rural women's empowerment developed by Lennie (2001). Building on the work of Friedmann (1992), this framework comprises four interrelated forms of empowerment: social, technological, political and psychological.

Revisions to the LEARNERS process

The project involved an ongoing process of redesigning both the LEARNERS process and the various project activities so that they better met the needs and interests of participants and collaborating community organisations such as Shire Councils. Feedback from community participants about their need for a simpler, easier to understand version of the process, and more case studies and examples, led the research team to begin developing a less complex version of the LEARNERS process in late 2003. The revised process was a simple four-step evaluation process with key questions, a comprehensive case study of the whole evaluation process, and a variety of other information and resources. This revised process was designed as an online resource kit called 'EvaluateIT' (see <http://www.evaluateit.org>).² The contents of this resource kit, and the outcomes from focus group research on the kit in four rural and regional communities, are outlined in Lennie et al (2004).

CASE STUDIES OF THE PARTICIPATING COMMUNITIES

Based on a number of criteria, including the level of support from the local Shire Councils and the community having some existing C&IT projects, the Tara and Stanthorpe Shires in Southern Queensland were selected as the trial communities. The following case studies provide some contextual information about these communities and the C&IT initiatives they implemented. The extent of participation by various community members in the project activities, and outcomes of the trial of the LEARNERS process are outlined. More detailed information about the various project activities is provided in the Interim Report on the project (see Lennie et al 2003).

Case study of the Tara Shire community

The Tara Shire is located in 'prime hard wheat country' 330 kilometres west of Brisbane. It has nine small townships and settlements scattered in an area of 11,661 square kilometres. When the project commenced the Shire had a population of just over 3,800 people, and the principal town had a population of 1,000. The Shire was identified as being in the top ten most disadvantaged communities in Queensland (Tara Shire 2001). About a third of the community lived in very impoverished circumstances on rural residential subdivisions with few services and facilities. The

Shire had some significant communication problems. Not only was there no effective mobile phone coverage but there were ongoing problems with telephone services, and there was no local newspaper or local radio station. Some areas of the Shire only received mail twice a week, the majority of roads were unsealed, and public transport services were minimal.

A combination of these social, economic, technological and geographic factors contributed to a divided community. Additionally, many people were seen as 'apathetic and negative', and there appeared to be minimal proactive leadership. Consequently, the area lagged behind other centres in its development and uptake of new C&IT.

However, the election of a new Mayor and Councillors in 2000 provided positive leadership. The Council instigated new community development initiatives and worked to build a better, more cooperative and pro-active community. Community leaders, particularly women, generated motivation through workshops and successful events such as a multicultural festival. New initiatives that used new C&IT included:

- The Tara Shire Community website (<http://www.tara.qld.gov.au>), sponsored and managed by the Shire Council.
- Public Internet access at the library.
- A Learning Network Queensland Centre which provided support to distance education students.
- Computer and Internet training courses.
- The 'Cyberflora' project which used C&IT to collaboratively design a public mural in a botanic garden.
- A school website developed by school students.
- After hours access to school computers and the Internet to adults who were taught by the school children.

Given this energy, the Council expressed interest in using the LEARNERS process to assist the community to work together to reach its goals, and to engage in more effective planning and evaluation. Council staff hoped that the process might improve communication across the Shire, as well as training and access to C&IT. The Council's Community and Economic Development Officer agreed to be the local LEARNERS project coordinator. She was assisted by the Council's IT Support Officer, based in the local library.

Eight people (seven women and one man) from various townships participated in the first community leaders' meeting. Twenty-three people (fifteen women and eight men) with a diversity of ages and occupations participated in the first community workshop, which included presentations about local C&IT projects and small group discussions. Participants worked in the areas of education and training, community and youth development, retail, accounting, and agriculture. One was a priest, three were retired and one was unemployed.

The local coordinator later gave presentations about the project at a major community meeting in a township and at a meeting of school principals from around the Shire. Representatives from various townships then participated in an 'email meeting', which nominated two projects that could be evaluated using the LEARNERS process: the Tara Shire Community website, and IT training and access across the Shire. A workshop to plan the evaluation of these projects was held in March 2003 with a small group of committed participants. Later workshops and a teleconference were held to analyse the results of a survey of all Shire residents and to plan key actions to be taken. While interest in the project continued to be fairly high, the loss of the Council's IT Officer in early 2003 had a major impact on local project activities.

The project coordinator reported that she found it 'very hard' to explain the project, and suggested that it needed to be put into 'a lot more user-friendly terms'. While groups such as the school principals 'picked it up straight away', others found the LEARNERS process difficult to understand. Nevertheless, the project had several positive impacts. It helped to improve the networking, communication, and information sharing between various community groups through email and the Shire website. More people in the Shire began using C&IT, particularly email and the Internet, and some participants identified new ways of using C&IT to overcome communication and distance problems. Participants also gained knowledge and skills in participatory planning and evaluation that they were transferring to other aspects of their community development work. Participants thought they would continue to use and learn from the skills and resources provided through the project. This enthusiasm and growth was reflected in the positive feedback on and suggestions for improving the EvaluateIT resource kit and website provided in focus group discussions with participants.

While some problems were experienced, this case study illustrates that the processes used in the LEARNERS project can be of considerable benefit to disadvantaged communities, particularly those who seek to use new C&IT to facilitate community capacity building and sustainable community development.

Case study of the Stanthorpe Shire community

The Stanthorpe Shire is located 230 kilometres south west of Brisbane in the Granite Belt region. It has two main towns and six villages within an area of 2,669 square kilometres. When the project commenced the Shire had a population of 10,373, and the main town had 5,500 residents. Major industries in the Shire were agriculture, farming and tourism. A significant number of residents were of Italian descent and some did not have strong English literacy skills. The Stanthorpe Shire had good communication systems and was serviced by a local radio station and newspaper. However, there was a lack of public access to the Internet, and a lack of awareness among the business community of the potential opportunities of new C&IT.

Residents were concerned about the number of people who were leaving the area, particularly young people. The retention of young people was considered vital to the community's sustainability. The community was seen as conservative, and somewhat fragmented and reluctant to seek help from outside. As in the Tara Shire, women had taken leadership in many community development and C&IT projects.

The Shire Council implemented a range of economic and community development initiatives that used new C&IT. They included:

- The 'GraniteNet' website and virtual community project (<http://www.granitenet.net.au>), managed by the Stanthorpe Shire Council. Residents could join 80 diverse online community groups or start their own interest group; community and business users could also build their own websites, accessed through the GraniteNet site.
- The Shire of Stanthorpe website (<http://www.stanthorpe.qld.gov.au>) which provides access to Council services and information.
- The Stanthorpe Community Learning Centre initiative which aimed to become the hub of learning in the area and provide access to a range of education and training courses and communication technologies.
- A Learning Network Queensland Centre located in the Stanthorpe High School.
- Computer and Internet training courses.

The GraniteNet Project Officer and the Community Learning Centre consultant agreed to be the local LEARNERS project coordinators. Seven people (five women and two men) from various community organisations participated in the initial steering committee meeting. The steering committee participated in the first community workshop, which involved ten women and three men. This group was younger and less diverse than the first workshop group in Tara. Participants worked in the areas of education and training, community and economic development, and local government. Several participants expressed disappointment about the lack of broad community representation.

These workshop participants identified establishing the Shire as a Learning Community as a key area of interest. Additional meetings and workshops were held to commence planning activities. Participants were encouraged to join the Lifelong Learning interest group on the GraniteNet site to facilitate communication and information sharing. Gradually, new participants joined these activities.

A workshop involving eighteen people (fourteen women and four men) was later held at which vision statements for a Learning Community were developed. However, while some participants were happy with the workshop process and outcomes, others wanted to work on short-term projects and were unclear about where the project was heading. Feedback also indicated that some workshop participants felt 'patronised' because their facilitation skills were not recognised. Maintaining motivation and interest was a key issue. Difficulties related to the ownership and control of the project were also evident. The local project coordinators and participants were confused about how the LEARNERS project fitted with the Learning Community project and wanted more participation by the research team in community activities. Problems were also experienced with involving the business community and people in service clubs and schools.

In early 2003, a small core group began planning and conducting an evaluation of the Lifelong Learning Group's website on GraniteNet as a pilot project. The mostly positive feedback from this successful evaluation helped to increase motivation among the local group. A workshop was later held to collaboratively analyse the data from an online survey of the Lifelong Learning Group members and to critically reflect on the evaluation process. Actions to be taken, based on this analysis, were agreed to.

While a number of disempowering and unintended impacts were experienced, participants indicated that the project improved communication and networking between community groups and organisations, and facilitated the formation of a core group of people enthusiastic about developing the Shire as a Learning Community. Several core group participants reported that their skills and knowledge of participatory planning and evaluation had increased. As in Tara Shire, participants provided very positive feedback on the EvaluateIT kit, which was successfully used in July 2004 to begin evaluating the new Stanthorpe library website.

SUMMARY OF THE PROJECT'S OUTCOMES AND IMPACTS

Our analysis suggested that the project's aim of facilitating participation, empowerment and capacity building in planning and evaluation was met, to varying degrees, for those who actively participated in the project over its duration. Participants in both communities were found to have experienced the four forms of empowerment used in the analysis: social, technological, political and psychological, to different degrees. However, some negative and disempowering impacts and effects were also experienced. They included initial misunderstandings and confusion about the project, problems with using technology to participate and communicate, and frustration due to factors such as having a lack of time and capacity to participate. Outcomes and impacts were particularly positive in the Tara Shire, which was considered to be a disadvantaged community.

The extent of community capacity building achieved by the project was somewhat limited due to the fairly low number of participants who were actively involved over the duration of the project, and other issues and barriers related to participation and empowerment. However, the feedback we obtained suggested that various ripple effects of this capacity building were experienced. They included using the skills developed in the project in other community contexts and making greater use of C&IT for communication and networking.

In both communities, a larger number of people participated in initial project activities while a smaller core group maintained involvement. As in the community capacity building project reported by O'Meara, Chesters & Han (2004), involving a wide diversity of community members and organisations was problematic. A large proportion of participants were women in the 40-59 age group with a white and/or Anglo-Celtic ethnicity. Many participants worked in the areas of community development, education and training or local government, in both paid and voluntary positions. Some participants in both communities held formal leadership positions in local government, community or business groups and organisations.

Most of the core group participants in both communities had a high to moderate level of existing skills, experience and knowledge in areas related to the project and in using C&IT such as email and the Internet. However, most of these participants increased their knowledge and understanding of participatory planning and evaluation. They also gained new knowledge and ideas about C&IT and strategies for improving local C&IT initiatives and making them more sustainable. Several participants and some community organisations made new or greater use of technologies such as email for community development, communication and networking purposes, particularly in Tara. For example, the Community and Economic Development Officer in Tara Shire gained more confidence and skills in using email and successfully used this technology to collaboratively prepare a major funding proposal for public Internet access with others who were scattered around the Shire. While some problems remain, the Tara Shire Community website and other communication and information sharing methods in the Shire were considered to have improved considerably. Skills and confidence in using email and other technologies were also considered to have increased significantly among the Tara participants.

Several active participants in both communities, particularly women, enhanced their leadership and networking activities and obtained and shared valuable new information. Some participants and industry partners also gained a broader or different perspective on the communities and a better understanding of their issues of concern. While there was some confusion about the LEARNERS process and the purpose of the project in its early stages, the workshops enabled community members to give voice to key issues of concern or interest related to communication systems, lifelong learning and C&IT access and use. The formation of the successful Learning Community Project group in Stanthorpe was seen as a key outcome of the project in this area. This group continues to meet regularly to plan activities.

BARRIERS TO CAPACITY BUILDING AND PARTICIPATION

We identified a complex range of issues and barriers related to community participation, empowerment and capacity building from our analysis of the multiple sources of data collected in the LEARNERS project. Many of these barriers have been identified in similar projects (Boyce 2001; Lennie 2001, 2002; O'Meara et al 2004; The Rural Women and ICTs Research Team 1999; Scott, Diamond & Smith 1997). As well as the factors already discussed in this paper, such as the misunderstandings and confusion about the project experienced by some participants, other important issues and factors identified by several participants were:

- a lack of time and/or capacity to participate due to factors such as undertaking both paid work and substantial volunteer community work;
- fear of computers and other technologies;
- lack of access to, or limited experience with, technology;
- divisions within the community; and
- some new community members feeling that they were not part of the community.

Other factors mentioned by a smaller number of participants included:

- the distance required to travel to workshops and other activities, particularly in the Tara Shire;
- the loss of key 'champions' in the community, such as the IT Support Officer employed by the Tara Shire Council;
- low literacy levels;
- lack of IT training and support;
- lack of confidence and experience with C&IT; and
- the social and economic effects of natural disasters such as drought and bushfires.

The limited resources available for the project was a further factor that affected the team's ability to address some of the issues identified above. These issues and barriers indicate important contextual issues that need to be considered when conducting capacity building and C&IT projects in rural areas.

PRINCIPLES AND STRATEGIES FOR CAPACITY BUILDING AND C&IT PROJECTS

Our analysis of and critical reflections on the LEARNERS project led us to consider the principles or strategies that communities and researchers might use to successfully conduct and evaluate PAR and capacity building projects and C&IT initiatives for sustainable development, particularly in rural, regional and remote areas. We identified the following principles and strategies:

1. Carefully and critically reviewing the assumptions of researchers, participants and the people and organisations they are collaborating with.

In particular it is essential to consider suppositions about:

- the amount of time that participants may need to engage in project activities;
- the level of resources required for researchers and communities to complete activities effectively (eg. financial, staff, infrastructure, etc);
- the positive and negative effects of volunteering, especially in rural and remote locations; and
- the agendas and goals of community participants, researchers and collaborating partners, which could be quite different.

Consideration of these issues is essential when collaborating with communities that are small, isolated and disadvantaged. For example, in such communities there may be limited resources and the pool of volunteers might be small, resulting in volunteer burnout and the potential for well meaning advocates to take over the local project agenda with other, alternative agendas.

2. Challenging the idealism that sometimes exists in PAR projects.

Such idealism could be related to certain beliefs, including that:

- there is a widespread desire for participation within a community;
- participation will lead to empowerment;
- consensus can be achieved within that community, and between participants and researchers; and
- all community members are equal, especially in relation to their capacity and power to be heard and to influence the direction of the project.

A lack of ownership and control significantly reduces the likelihood that community capacity will be built and that sustainable community development will occur.

3. Considering the choice of local champions carefully.

While it is necessary for researchers to identify and involve local champions in projects, they need to choose them carefully. This can assist in:

- ensuring better resourcing of the initiatives that communities choose;
- reducing the likelihood of volunteer burnout;
- enhancing participation in the project and its level of inclusion;
- circumventing powerful individuals and groups gaining control of the agenda; and
- preventing well-meaning champions from taking over the project with a different agenda.

The ideal local champion or project leader needs to:

- believe that capacity building processes can help address their strategic needs and issues;
- be committed to their community and to using empowering, capacity building processes;
- have sufficient time, resources and support to implement these processes effectively;
- have good networks and networking and communication skills; and
- have the ability to explain or 'translate' capacity building processes to a variety of community groups and individuals.

4. Identifying or finding key community members and leaders with an interest in the project and personally inviting them to participate.

This strategy will assist researchers in not relying on the champion to choose all of the participants, and working with existing local leaders, thereby enhancing the credibility of the project within government, community and business organisations. Nonetheless, achieving these outcomes requires the project to be adequately resourced.

5. Identifying relevant skills and roles participants want to undertake.

People in rural and regional communities have a wide diversity of existing skills, knowledge and experience in areas such as planning, organising, facilitation, communication and evaluation. It is important to identify and validate the particular skills and capacities of participants and to consult them about the type of roles they would like to undertake in evaluations and capacity building projects.

6. Building on existing local projects.

Given the often limited funding and resources available for community capacity building and C&IT projects, it is often useful to build on other related projects in rural communities. However, care needs to be taken so that confusion about different community projects does not arise.

7. Developing a plan to maintain momentum when projects go wrong.

Both researchers and participants need to recognise that things can go wrong in PAR projects and that they need to have a plan to maintain momentum when such events occur. Examples of these events are a technique not working, an anticipated outcome not eventuating, a negative evaluation, and the effects of natural disasters such as bushfires or drought. Strategies that might be useful here include:

- getting the timing of key project events right;
- building on existing local activities and networks, including everyday events;
- developing relationships between researchers and participants, and among participants which are based on trust and open communication;
- regularly reviewing goals and outcomes; and
- community groups employing key staff such as community development officers and information technology specialists to assist with project activities.

8. Making effective use of C&IT in action research projects.

A key question in working with rural communities, is whether C&IT projects can be effectively conducted at a distance. Our findings indicate that a period of prolonged face-to-face contact is required before significant activities can be successfully conducted at a distance. However, once relationships have been successfully built through face to face communication, project activities need to make effective use of C&IT. A good example is researchers and participants using email to maintain contact, organise project activities, and obtain feedback on activities. A further example is the LEARNERS project's successful use of conferencing technology to conduct annual critical reflection workshops involving all of the communities and stakeholders involved in the project.

9. Actively involving people in the project with technical capability, or who have access to C&IT resources and take responsibility in this area.

This strategy is important to making the most effective use of C&IT and the C&IT resources of communities and partners in the project.

10. Ensuring that the technologies chosen are relevant to the needs, interests and goals of the participants.

This strategy is necessary if technology is integral to the project. However, those community members without effective access to C&IT need to be considered.

11. Providing a very clear initial explanation of the project.

For learning to occur and anticipated outcomes to be achieved, it is essential for researchers to ensure that their initial explanation of the project is very clear to participants. A key message from participants in the LEARNERS project was that this explanation be kept simple and free from

jargon. Yet researchers need to be mindful that those with more extensive prior knowledge of the methodology, terms and processes being used are considered.

12. Achieving clarity about what researchers and participants mean by sustainability.

It is essential that researchers and participants are clear about what they mean by sustainability. This clarity must encompass what is to be sustainable. For instance, is the focus on C&IT specifically? Is it on community development? Does it relate to a wider process or does it compass C&IT, community development and the wider process?

In addition to the issue of clarity, factors in achieving sustainable C&IT initiatives for community development that we have identified include:

- leveraging micro-business enterprise development off government-funded technical and human infrastructure provision;
- building on local industry strengths;
- learning from global experiences whilst building on local assets;
- finding innovative business models to capitalise on new opportunities for content and applications;
- ensuring community involvement in deciding, planning and evaluating projects; and
- adopting a learning approach through cycles of evaluation based on action research processes that build capacities in planning and evaluating C&IT projects (Hearn et al. 2005).

LEARNINGS FOR RESEARCHERS AND GOVERNMENT WORKERS

In addition to the principles and strategies identified above, the following significant learnings from the project were identified for other researchers and government workers involved in PAR, C&IT and capacity building projects:

- Taking the macro and micro contexts of projects into account can increase awareness of important contextual and policy issues that can affect the successful implementation of these projects in rural communities and their sustainability.
- Implementing and evaluating capacity building projects requires addressing issues related to gender and power, other differences such as age, ethnicity and skill level, and diversity within communities. Successful projects are inclusive of the whole diversity of people in a community, including women and men, younger and older people, indigenous people, and people from various community sectors.
- The important informal leadership of rural women, their contribution to sustainable community development and social capital building, and their key role in C&IT uptake, needs to be more widely recognised, validated and supported.
- Developing and implementing strategies for more wide-spread adoption and use of C&IT is required before these technologies can be effectively used in capacity building and community development projects.
- To develop relationships with participants based on trust and open communication, researchers and project partners need to actively participate in activities such as community workshops and meetings. This can result in mutual understanding about key issues of

concern and shared learnings about the community and broader government policies that may be impacting on the community.

- Effectively managing and conducting PAR projects requires a wide range of skills, knowledge and abilities, including high level facilitation and communication skills; and the ability to translate key concepts into everyday language and simple, practical examples. Rigorous, ongoing evaluations of project activities and impacts are also required that are grounded in an awareness that PAR and evaluations are political processes that can have unintended or negative effects.
- Successfully conducting PAR and capacity building projects can require significant time, energy and resources which may not always be available. However, using effective planning and democratic decision-making processes can make better use of the time available. Email can also be effectively used to organise project activities and rapidly gather feedback on issues.
- Concepts such as 'evaluation' and 'community capacity building' may need to be demystified. For example, some participants may see evaluation as a judgemental activity that could highlight shortcomings in their projects, rather than a learning process that can help identify strategies to better meet community goals and needs.
- As well as building skills in planning and evaluation, capacity building and participatory evaluation projects also need to assist community members to identify funding and resources to implement the strategies for improvement and action identified by community members.

CONCLUSION

The outcomes of the LEARNERS project strongly suggest that PAR and participatory evaluation methodologies can be effective strategies for building community capacities, facilitating various forms of empowerment, and identifying strategies to increase the sustainability and success of rural C&IT projects. However, due to inequalities in power and knowledge, the different agendas of researchers and participants, pre-existing networks and alliances in small rural communities, and other complex issues and factors, the use of these methodologies can also produce unintended and disempowering effects. In the LEARNERS project they included a perceived lack of control of project activities, confusion and misunderstandings due to factors such as the unfamiliar language used, and frustrations due to poor quality C&IT or limited access to C&IT.

Our findings suggest that facilitating rural women's empowerment is integral to the success of future capacity building programs in rural and regional areas, given their significant leadership roles in community development and C&IT projects and in the uptake of new C&IT (The Rural Women and ICTs Research Team, 1999; Wells and Tanner, 1994). Given the growing importance of effective access to and use of C&IT in rural community development, increasing the technological empowerment of community members is a further important goal.

Outcomes of other research indicate that capacity building, skills training and mentoring can strengthen the link between participation, empowerment and sustainability (Lyons, Smuts & Stephens 2001). A number of contextual factors are also crucial to the sustainability of community development projects, including local politics and the community structure (Lyons et al 2001). As the findings of the LEARNERS project demonstrate, there are many complex issues and barriers that need to be addressed to more effectively facilitate community participation, empowerment and capacity building in C&IT projects and in their evaluation. From our critical reflections on the

LEARNERS project we have proposed principles and strategies that may assist researchers, government workers and communities to plan and conduct more effective PAR and capacity building projects and ongoing evaluations of C&IT initiatives that involve a broad diversity of community members and stakeholders. Our research findings suggest that implementing these strategies and conducting ongoing participatory evaluations should contribute to increasing both the sustainability of C&IT initiatives and rural communities.

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