

Participatory Workshops: Hands-On Planning for Sustainable Schools

by

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What would it mean to live in a city whose people were changing each other's despair into hope? You yourself must change it. What would it feel like to know your country was changing? You yourself must change it. Though your life felt arduous new and unmapped and strange what would it mean to stand on the first page of the end of despair?

(Adrienne Rich, 1986. from "Dreams before waking" in Your Native Land, Your Life)

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List of Acronyms

ESD CA	Education for Sustainable Development initiative Collaborative Assessment
_	
CCIC	Canada Council for International Cooperation
CYFC	Child and Youth Friendly Calgary
CYO	Child and Youth Friendly Ottawa
CIDA	Canadian International Development Agency
CMHC	Canada Mortgage and Housing Corporation
CRC	Convention on the Rights of the Child
CEFPI	Council of Educational Facility Planners International
DESD	Decade of Education for Sustainable Development (2005 – 2014)
EAL	English as an Additional Language
ESF	Education for a Sustainable Future
IAP2	International Association of Public Participation
ICT	Information and Communication Technology
JFREB	Joint Faculty Research Ethics Board
LTP	Learning Through Photography
NGO	Non-Governmental Organization
SSP	Sustainable School Program
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
Youth REP	Youth-led Research, Evaluation and Planning

Parental consent and student assent were integral to the process of this research. However, in the interest of protecting the identity of children and youth, images have been altered in order to make this work widely accessible through the Library and Archives Canada Theses Canada Program.

Foreword

In Adrienne Rich's poem, the speaker contemplates what it might mean to be standing on "the first page of the end of despair" (1986). Imagining the first page can be daunting. "You yourself must change it" Rich echoes, reminding us every person must find her own way to make a difference.

Let's imagine for a minute that going to school really could enable a person to change the world. I imagine this all of the time. Students, at all levels, are drawn together into communities. If we are very lucky, we are participating in our own education and making connections with people, places and ideas.

Now imagine we share a common language. One that is visual, verbal, tactile and experiential. This is the language of world changing.

As I stand on my first page I am humbled by all of the things I do not know. At the same time, I look out my window at a school across the street and see children playing, running, bouncing, huddled making secret plans and shouting with exuberance. I suggest we all start to embrace recess. Take a pause. Step back from the things that seem important but probably are not. Let us collaborate together, let us engage in play. This is the work of world changing.

Marcella Poirier December 18, 2008

Supervisor: Dr. Sheri Blake Committee: Dr. Rae Bridgman Dr. Gary Babiuk

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My sincerest thanks are to my beloved husband Ian Trump. Your patience, love, kindness and support sustained me throughout this endeavour to return to school. I do not have the words to thank you for so consistently believing in me more than I believed in myself. I stand on the first page because you encouraged me to open the book.

For me, it is always the characters that make the story and the people who make the plan. Thank you all for participating.

December 18, 2008

Abstract

In this exploration, participatory planning workshops are used to implement the *Education for Sustainable Development* (ESD) initiative in a grade six class in Winnipeg. The approach is an effective student-centered strategy that meets the needs of children with a range of learning abilities. The benefits of participatory planning workshops for students with special needs emerged as a key success of the process. Grounded in the principles of community engagement, this document connects children's rights to citizenship with the need to engage children in planning for sustainable development.

Semi-structured interviews were integral to understanding the unique needs of the participant class. Challenges that emerged during the parental consent and student assent process are examined and strategies for future interdisciplinary collaborations are identified. An extensive literature review explores the emergence of youth participation in planning and a range of best practices for engaging children in participatory student-led processes. This research investigates international strategies for implementing the ESD initiative and considers emergent best practices at student, institutional and government levels. Schools are examined as components of community infrastructure that influence neighbourhood design and shape development. As school infrastructure ages and school facilities are challenged to become more sustainable, engaging with school communities in planning, design, renovation or building will be an important skill for planning professionals. Developing the necessary knowledge, skills and values to engage children in planning processes is illustrated as an integral component of this process.



"It is not education, but education of a certain kind, that will save us." (Orr, 1994, p.8).

1.0

Introduction

By the time the average North American student reaches grade twelve, he/she will have spent more than half his/her life in school. School environments are a silent teacher; conveying subtle messages over many years of a student's education. Schools are environmental and social infrastructure in which young citizens discover how to relate to each other and to the world. They are communities with unique strengths and opportunities. If it is "education of a certain kind that will save us" from looming global crisis, an exploration of the messages children learn about sustainability from their school environment is a valuable first step (Orr, 1994). Faced with the global sustainability crisis of the 21st century, students need tools that are empowering, inquiry-based, collaborative and participatory. It is time for planners to consider how we can work as partners in this process.

In my research, I explore how participatory planning workshops can help students prepare for the challenges of sustainable living by learning to analyze their school community and their roles within it. I examine best practices for youth engagement and explore the challenges of implementing this approach with a class of grade six students. Planning with young students involves a process of helping citizens acquire, activate and apply concepts of sustainable behaviour and development. The language of this three-stage strategy is borrowed from the Manitoba social studies curriculum and provides a practical approach that planners can share with their partners in education when working with young people. I worked with twenty-six grade six students from a school in the east end of Winnipeg, Manitoba over a period of two and a half months. Nine two-hour workshops were conducted, in addition to interviews

and participant observations. I describe highlights within this process and characterize the workshops as a flexible tool for engaging young people in planning. We began the exploration by imagining the school as a landmark in the community, located in a city, a province, a country and a world. This framework of interconnection is a tenant of sustainable development and is supported by the Manitoba *Education* for Sustainable Development (ESD) initiative. The ESD, developed from the United Nations Decade for Education for Sustainable Development 2005 – 2014, is intended to be incorporated by Manitoba teachers in every subject and all grade levels. Participatory planning workshops were conducted as part of the social studies and language arts program in a grade six class at a participant school.

This research is situated within the framework of citizen engagement in a school environment. The relationship students have to civics and citizenship is complex. While the principles of citizenship may be taught in school and supported through ESD policy and the social studies curriculum, young people have limited rights and abilities to create actual change. This enforces a problematic philosophy of children as *potential* citizens training on a continuum towards full citizenship. I argue that based on the 1989 United Nations Convention on the Rights of the Child, young people are citizens now with the ability to actively participate in creating change in their environment.

This is supported by the literature review, which emphasizes that adults must be prepared to both recognize and respect the equal rights of children in all participatory processes (Simpson, 1997; Hart, 1997; Driskell, 2002; Bridgman, 2004; Delgado, 2006, Chawla et al., 2006 and others). Students require tools and supports to analyze their environment. In participatory planning workshops, students are able to determine opportunities within their school community to improve sustainability. Using their own

assessments, students can begin to apply their knowledge in small projects for change based on their own research. The powerful nature of personal discovery is described in Chapter 5. Strengths and limitations of this process are also explored and analyzed.

Participation is a best practice in planning. As communities define their own strengths and opportunities, they engage with each other and "come to see the world not as a static reality, but as reality in process, in transformation" (Freire, 1972, p.56). The act of looking closely and critically at the every day spaces of life is part of this process. I imagined a school-based experience where students would have the opportunity to read the landscape and express their ideas about what they liked and what they felt could be improved using a participatory planning process. Students were then challenged to create a plan to inspire change in their school community. The process requires support from planners and educators and has the potential to reinforce education for active citizenship.

I prepared for my work by developing an understanding of participatory models for working with youth (see Chapter 2). I approached planning with children as an act of communication, not narration – a dialogue, not a telling (Freire, 1972). I adopted Freire's pedagogical approach, which emphasizes an understanding that students thrive when they are not viewed as empty vessels where knowledge is deposited but active participants in their own process of discovery. This is a core value of my planning ethic.

1.1 Research problem

Young citizens are not widely engaged in planning processes. Youth engagement is a marginal, but

emergent best practice. Although strategies exist to engage young people in planning (see Chapter 2), there is limited application of this knowledge in planning practice. Participation is the barometer of democracy and an integral component of convivial cities. When planning with children and youth, we must understand how to build relationships and speak in multiple languages: verbal, visual, tactile and experiential.

Youth engagement specialist Ramona Mullahey suggests that:

Initiatives to encourage youth involvement are greatly served by recognizing the importance that interpersonal relationships play in enriching the lives of young people. Youth engagement programs are more successful when the participants are surrounded by supportive relationships. These relationships play a significant role in how quickly a young person grasps the larger context for community problem solving (Mullahey, 2008).

Mullahey emphasizes the importance of the knowledge, skills and values embodied by adults supporting youth participation. It is not enough to open an engagement process to children and youth; adults must be trained to support young people in discovery once they are actively participating. Mentorship is therefore a component of community problem-solving. Engaging youth requires commitment to a process, an ethic of participatory planning in practice and opportunities for implementation. I suggest that teachers and planners can work together to educate young citizens about sustainable development. The school environment is a pragmatic place to start. There are multiple benefits to engaging children in participatory planning workshops, particularly in hands-on experiences.

Interdisciplinary partnerships between teachers and planners has great potential for education about

sustainable practices. Developing partnerships will require opportunities for teachers and planners to work together and train one another. Planners must think creatively about how we can offer our services in a sustainable and supportive way.

The 1996 UNICEF report *Children's Rights and Habitat* indicates that training for children, youth and community leaders in the skills of community participation is integral. The report goes on to emphasize that the training "should include curriculum development and teacher training to enable schools to work with planners to involve children in the analysis of problems in their communities" (UNICEF, 1996, p.31). Participation in planning is a valuable skill for young citizens and a necessary component for sustainable development. Participatory workshops are explored as a tool for planners, educators and students to work together to create more sustainable school environments.

1.2 Statement of purpose

Schools are a logical place to engage young people in ways of thinking about sustainability. However, teaching sustainability in schools is a challenge. Children have limited power to influence decisions, budgets are often very tight and creating change can be difficult in an environment where routine is highly valued. Structurally, few schools are best-practice models of sustainability. Although technology and teaching practices have evolved, schools do not look very different than they did thirty years ago. Using schools as a site for assessing sustainability is a challenging but valuable endeavour. Planners who engage in this process are pioneers in participatory planning with young people and should be prepared for potential challenges. There is, fortunately, political will to establish education for sustainability in Manitoba schools. The primary tools of this initiative are the Education for Sustainable Development (ESD) $_{19}$ initiative and Education for a Sustainable Future (ESF) documents.

The Manitoba ESD initiative has been developed to integrate sustainability into all subjects. However, it does not suggest working with students to assess their own classroom or school environments. The ESD introduces sustainability in broad terms that characterize the issues as large, abstract and overwhelming. In an attempt to emphasize the global nature of the issues of sustainability, the ESD fails to provide students with significant opportunities for hands-on work at the local level. Placing emphasis on global problems without providing citizens a way to relate based on personal experience can often stagnate rather than stimulate action. Young people benefit from the opportunity of hands-on learning to determine how they can effect change.

The goal of this research was not to encourage students to imagine a better school in a fantastical or abstract way. Students assessed their environment to determine real opportunities for change. I explained "environment" to students as both the natural/ecological world as well as the built world. "Sustainable" school environments were described as places that were better for people and better for nature. Our goal was to imagine the connections between the two ideas. Student projects evolved to incorporate social and environmental sustainability from their own research and discoveries. The process of experiential inquiry is integral to student perceptions of their ability to assess and plan for change. At the core of the process, young citizens require support and training to think about their environment and their role in it in new, more sustainable, ways.

Working with communities towards sustainability requires participation at the grassroots level. Mark

Roseland suggests that community sustainability must "bubble up" rather than "trickle down" if projects are to be carried forward by the community. Community participation is integral to this process (Roseland, 2005). In The Community Planning Handbook, Nick Wates also suggests that "people feel more attached to an environment they have helped create" (2000, p.5). This simple principle was used when working with children as they assessed their school environment. Investment, whether emotional or financial, is often made after a person has made an independent discovery. Community involvement in planning processes is too often characterized by adversarial relationships among planners, developers and community members. Due to the reality of conflict within planning, children are not often included in the process. Planning should strive for engaging, transparent and informative public processes. There is no reason that young citizens should not participate. In circumstances where children are the primary stakeholders – as with schools, parks and community centres – it is a violation of their basic rights not to include them in decision-making processes, according to Article 12 of the UN convention of the Rights of the Child (1989). This article clearly states that children have a right to express their opinion in matters that affect them and that their opinions should be respected. Finding a way to engage young people in real planning processes is an integral step to establishing the sustainable neighbourhoods and cities we desire and deserve. This research is a step towards developing a process of youth engagement in planning that I see as necessary and inevitable in the evolution of sustainable planning practices.

1.3 Statement of objectives

The primary goal of my research is to explore how children can be more engaged in planning processes – particularly for sustainable school environments. I investigate the following questions in this research:

- 1. What knowledge, skills and values do planners require when working with children?
- 2. How can participatory planning workshops be used as a tool for assessing and enhancing school sustainability?
 - a) What are the potential barriers to children's participation in a school environment?
 - b) What do students discover about sustainable development in this process?
- 3. How can young people's participation be integrated into the planning, design and maintenance of their schools?
 - a) What are the potential benefits of child participation when planning, designing, building, maintaining and sustaining school environments?

Participatory planning can be facilitated in schools using inquiry-based discovery. The workshops provide planners with tools for working with children; and provide teachers with tools for exploring the ESD initiative using participatory planning. Creating real changes to improve the sustainability of school learning environments is a large task. Many partnerships are required to develop and support sustainable school environments. This thesis represents an incremental step towards exploring the role planners can play in this process.

Planners are often engaged to provide neighbourhood assessments to inform decisions for development, renewal or revitalization. The assessment process should involve community members, often referred to as "stakeholders", at early stages and in a sustained manner. Tools and training to work with young community members and to understand their perspectives are valuable assets for planning professionals. Workshops are a potential tool for child and youth engagement. When it comes to school sustainability, children are key stakeholders. Systemic re-evaluation of school sustainability should include participation

with a variety of stakeholders – students, teachers, administrators, parents, politicians and community members – and should progress towards three types of change. The Council of Educational Facility Planners International (CEFPI) has defined these changes as "procedural, technological, and structural-cultural" (CEFPI, 2004, pp.1-2). According to the CEFPI guidelines:

Procedural change refers to change in routines, schedules, or plans, while *technological* changes are those that occur because of advances in new technologies, such as computers and wireless communication. *Structural-cultural* or *systemic change* means doing different things (rather than doing the same things differently) by developing new practices, relationships or roles. Structural-cultural change aims to produce higher student achievement by developing innovative ways to engage students more effectively (pp.1-2 - 1-3).

Attitudinal change, which necessitates an examination of values, must occur prior to change at any other level. My research was designed to engender structural-cultural change by fostering a relationship between city planning and education in an effort to devise a new interdisciplinary approach to teaching sustainability. Through the use of participatory planning workshops, students investigate issues, explore solutions and propose projects to improve their own learning environment. This collaborative endeavor is part of a process to create opportunities to engage young people in planning processes.

One of the goals of this research is to create a framework for teaching sustainability based on discovery and investigation. A discovery-based learning model was used to shape participatory workshops.

The workshops are easily integrated into the Manitoba social studies curriculum. Workshops were implemented over nine weeks in two-hour sessions, but could be planned to fit a range of schedule options. I formulated a three stage approach: Assess and Express, Explore and Discover and Make it

Happen. I developed this concept by examining the Manitoba grade six social studies curriculum and a

range of participation strategies for participatory planning.

Assess and Express: This first phase is designed to identify student *perceptions*. Student participants use photography, interviews, narrative, mapping, and collage to assess their school environment and determine elements to improve the sustainability of their school. Students analyze their photographs and identify areas they want to investigate further.

Explore and Discover: The second phase focuses on student *conception*. Students divide into smaller project groups and begin to investigate the opportunities they have identified. Students decide on methods to communicate their project ideas to their school community and work to develop their project research.

Make It Happen: This third phase focuses on the lived experience of students bringing knowledge into action to engage their school community. Students select a medium to present their concept to improve the sustainability of their learning environment. Students determine a forum for the final presentation of their projects.

The workshops provide a planning framework for young people to participate as researchers and "experts" about the sustainability of their own school. To meet shared goals with my teaching partner, I utilized the collaborative education assessment model of Anne Davies, Caren Cameron, Colleen Politano and Kathleen Gregory (1992). Collaborative assessment encourages students to reflect on their own learning. It also involves collecting evidence of learning and informal communication about learning with students. This model suggests that knowledge is constructed through "activity and experience" (1992, p.2). It provided a valuable assessment framework for the participatory planning workshops.

1. 4 Significance of Research

"...we need a generation of everyday heroes, people who – whatever their walks of life – have the courage to think in fresh ways and to act to meet this planetary crisis head-on" (Gore, 2007, p.11).

Not since World War II has the call for a hero generation entered the public dialogic. Howe and Strauss suggest children of the Millennial generation (those born between 1982-2002) experienced educational and cultural trends that shaped their belief in a collaborative ethic fuelled by individual strengths. They draw parallels with other generations who faced large collective crisis like the "G.I. generation" (born 1901-1924) and the "Silent generation" (born 1925 – 1942). They state "the experience of earlier hero generations suggests that, to fulfill their potential, they must be raised as children to think of themselves as special, powerful, capable of great collective deeds" (2000, p. 360). Young citizens need the right kind of support and training to mobilize collectively to face a global tipping point characterized by climate change, food insecurity, an ever-increasing population on a vulnerable planet.

Curriculum guidelines in Canada reflect evolving concern for sustainable living. Emphasis on environmental stewardship is a core value along with community, civic responsibility and multiculturalism. I determined that if "we need a generation of everyday heroes" (Gore, 2007, p.11), then teachers deserve more support from their partners in other disciplines to help give students the tools they require. I designed this research to support students in the discovery of their own ability to engage in heroic acts in humble ways. Participatory planning workshops were designed to enable students to participate in assessing and planning for change at a scale they could relate to. The chance to asses and express ideas is integral to the process. Exploring and discovering possible solutions is an important component of the

learning experience. Without the time and support for these steps, it is difficult for children to think about how they can take action to make change happen or why it is important.

1. 5 Limitations and Biases

Limits

Entering into this research I did not possess formal training in the educational field. Inexperience in classroom management is a limitation of the research. I also did not have experience working with students with special needs. I relied on my experience as a storyteller and puppeteer and my experience working as a theatre instructor for young people. I also had limited access to potential partners in school communities. When making a connection with a school community I relied on previous volunteer experience with the participant school. From 2001-2004 I visited Princess Margaret School with my bird puppet Claudia to offer literacy support with grade one students. Some of the students I worked with in grade one were members of the grade six class I worked with during this research.

Student "grading" was another limit for the participatory workshops. I was concerned about how the teacher would need to account for students' participation in the project without limiting their participation. I was also concerned that managing adult control of student participation could prove a limitation. Adult control is an imperative in a school environment. Adult control can be exercised both actively and passively. Enthusiastic adults can take over student-led projects in an attempt to "improve" them. At the same time, adults can fail to support student led efforts by failing to carry them forward when required or denying permission to act. In relationships between adults and young people, power is almost always not shared equally (Driskell, 2002, pp. 87 – 93).

Bias

My personal biases are shaped from a review of the literature and from my own experiences. I have observed that children are generally not engaged in planning and design processes and are very rarely present at public meetings. Although engaging youth is an emergent best practice in the planning profession, I believe children are generally not regarded as equal participants in decisions, even in situations that affect them directly. I rejected designing proscribed projects when working with children in favour of enabling substantial student choice and autonomy. I believe that providing as much choice and control to students as possible will result in the best engagement workshop. Having participated in a service learning project during my university studies, I understood experiencing discovery through inquiry was both a difficult and rewarding process.

1.6 Thesis organization

In this exploration, the literature review follows the introductory chapter. Although a literature review is a research method used to contextualize and frame an inquiry, I elected to organize it as a separate chapter following this introduction. The review considers planning with children in theory and practice. Chapter 2 contextualizes the research questions outlined in section 1.3 of this chapter, and provides a framework for this exploration.

The literature review introduces and explores youth engagement strategies in planning and provides an analysis of seven participatory models integral to shaping the workshop approach. I explore some curricular opportunities to connect and integrate participatory planning workshops in a school environment and evaluate two curriculum documents created to support sustainability and community

planning. Examples of planning with youth in practice are also considered. International approaches to implementing the ESD are examined along with the role of schools as neighbourhood infrastructure.

Research methods are described in Chapter 3 and include the use of: semi-structured interviews, photography, participatory workshops and participant observation. Chapter 4 introduces the participant school and describes the process of selecting the class of grade six participants. The corresponding research findings are found in Chapter 5, followed by responses to the research questions, summary conclusions, lessons for planners and opportunities for continued research in Chapter 6.

1.7 Chapter summary

Planning with young people – especially for environments in which they are primary stakeholders – is a best practice. Engaging young people in this process requires multiple partners. It is useful to think about planning with young students as a process of helping citizens acquire, activate and apply concepts of sustainable behaviour and development. This three-stage approach is embedded into the Manitoba social studies curriculum (Manitoba Education and Training, 2000) and functions as an existing tool that planners can share with their partners in education when working with young people. If young citizens are to successfully engage in planning processes, they must receive some practical training. In kind, planners must also be trained in practical ways of working with young people. The knowledge, skills and values required to plan and engage youth are explored in Chapter 2. This is especially true for sustainable community planning. Sustainability requires long-term goals as well as short term community "wins" to mobilize and not paralyze people during community development. Solutions will be more effective if they are discovered and experienced at a local level by individuals. Young people need to be engaged in

this process. Achieving healthier, greener, safer cities requires a systemic change of attitudes. Planning to engage with young citizens early and in an ongoing way is one of the best routes to building sustainable environments.

our Earth The earth is our toenjoy For every little girl and boy But we must always be aware That all its beauty we must share with all the children yet to come, who want to laugh and play and run Around the trees and in the fields so we must keep our planet free From messy thir trash and debris With air that is clean and fresh and clear for all to breath from yearto year We must never ever abuse our sweet earth that's owns to use

2.0

Literature review

A literature review contextualizes and directs research based on gaps and opportunities identified in a subject area (Denscombe, 2002). This literature review frames the importance of engaging with children and youth in planning processes. The review illustrates that schools are public infrastructure and are important sites for sustainable community development. Children and youth are important stakeholders in school communities. The literature illustrates that their perspectives should be represented in planning processes. The review contextualizes the emergence of youth participation in planning within a global movement for children's rights, defined by the 1989 UN Convention on the Rights of the Child, Agenda 21 and the UNESCO Decade of Education for Sustainable Development (2005). The review considers how to include child and youth stakeholders in sustainable development planning within a school environment. It investigates approaches and best practices for planning professionals to work with school communities and affirms this process is integral to sustainable community development. I examine opportunities in the Manitoba ESD initiative that create areas of common ground for educators and planners and review emerging research of ESD implementation from around the world. Achieving sustainable schools requires community partnerships as well as interdisciplinary working strategies.

Planning and education currently exist in political, professional and academic silos. The lack of integrated thinking is detrimental to both cities and schools. Although schools are part of the public infrastructure that shape neighbourhoods, towns and cities, there is little collaboration between city planners and schools (Vincent, 2006; Chung, 2002; Abrams & Gibbs, 2000; Kerchner, 1997 and Vitiello, 2006). The lack of interdisciplinary opportunities presents a significant barrier to engaging children in real planning processes and to fostering sustainable thinking at the local level of the school. Schools and cities are codependent partners in sustainable development. Engaging multiple publics (people of diverse culture,

age, gender and ability) at a community level is a key principle of sustainable community planning. I explore strategies to implement this best practice into action. The literature review highlights gaps and opportunities for additional research.

2.1 Schools in the planning process

Schools are integral public infrastructure that shape society, the economy and the environment (Kerchner, 1997; Chung, 2002; Vincent, 2006; McKoy & Vincent, 2007). At the neighbourhood level, schools are often indicators of neighbourhood health and safety and often mirror structural issues in the area (Chung, 2002, Abrams and Gibbs, 2000). In sustainable neighbourhood planning, smart-growth approaches for multi-service community facilities are enmeshed with education reforms. Smart-growth proponents suggest facility planning strategies optimize the ways public facilities can service community members more broadly. Best practices for planning or renovating school facilities emphasize the strategic location of schools in urban infill sites that are already connected to transportation infrastructure. Best practices advocate smaller schools and multi-service (shared use) facilities to serve an intergenerational community (Chung, 2002, Vincent, 2006). To achieve multi-service facilities that meet the needs of multiple publics, an interdisciplinary and collaborative planning process is required. Understanding the relationships among health, education, and community gathering is important for multi-service facility planning.

Jeffrey Vincent suggests infrastructure and capital planning for public schools "need to be much more integrated into broader urban planning and policy making" (2006, pg. 433). He advocates land-use planning strategies should emphasize the relationships between public schools and the built environment as schools have consequences for the surrounding area. He suggests that schools shape development

patterns and transportation infrastructure. Although Vincent suggests it is essential to consider the impact of schools in sustainable urban planning, he does not consider the role of student engagement in this process. A sustainable development plan requires a comprehensive approach. The relationship between asset based community development and land-use planning strategies is not fully explored in Vincent's main thesis.

Schools are unique communities with individual priorities and requirements. Planning with school communities requires prioritizing local capacity and assets. Connie Chung suggests that multi-service facilities only support sustainable community economic development when they reflect community needs (2002). Investment in local capacity-and-coalition building is key to successful community-school partnerships. The link between housing and schools is a community economic development strategy. Development requires investment in training for community stakeholders in process. Chung and others identify the importance of planning with school communities for safer, healthier and more sustainable neighbourhoods. However, Chung excludes engagement strategies for working with children and youth in this development process. This is a significant gap. Without exploring how to engage children in the development of multi-service facilities, the analysis lacks a strategy for holistic sustainability. The threat of top-down planning is very real when a plan to engage with youth is not in place. My investigation emphasizes the importance of engaging children as key stakeholders in planning processes for schools. This review will clarify the importance of public participation, specifically youth participation, for sustainable development.

2.2 What is participation and why is it necessary in planning?

Throughout this research "participation" and "engagement" are used interchangeably to describe the ways in which people take part in planning processes. To engage is to be "actively involved and committed" while participation means "to take part" or "to have a part or share in something" (Merriam-Webster, 1980). How do citizens take part in planning? My first research question asks: what knowledge, skills and values do planners require when working with children? The International Association for Public Participation (IAP2) core values emphasize that public participation involves a comprehensive communication process of listening and being heard. Ideally, participation should be engaging and designed for multiple publics comprised of diverse ages, abilities and genders. The IAP2 supports seven core values for public participation:

- 1. Public participation is based on the belief that those who are affected by a decision have a right to be involved in the decision-making process.
- 2. Public participation includes the promise that the public's contribution will influence the decision.
- 3. Public participation promotes sustainable decisions by recognizing and communicating the needs and interests of all participants, including decision makers.
- 4. Public participation seeks out and facilitates the involvement of those potentially affected by or interested in a decision.
- 5. Public participation seeks input from participants in designing how they participate.
- 6. Public participation provides participants with the information they need to participate in a meaningful way.
- 7. Public participation communicates to participants how their input affected the decision (IAP2, www.iap2.org).

These seven core values stress that communication and informed decision-making as necessary components in the sustainability of resulting outcomes. In reality, many civic planning processes do not reflect these core values of public participation. Participation can challenge proposed development and question existing policies. It can also enhance project planning and design. If community members are engaged at the earliest stages, cost-effective solutions can be achieved with less conflict and more community investment (Kretzmann and McKnight, 1993; Chung, 2002; Sanoff, 1993).

Participation is a way of knowing. As a process of coming into knowledge, participation allows for discovery of self and subject in a tangible way. Skills are required to engage and incorporate participation into planning. Participatory planning values the knowledge and experience of participants. Planners striving to engage young people should understand that children may choose to communicate what they know and how they know it in a variety of ways. A review of literature suggests that adults must understand how participation works (knowledge) and have the tools for implementing participation in practice (skills) and to strive for this in all community planning (values). Possessing a rich understanding of participation can assist planners in developing a common language with their partners in the teaching profession. Often, participation requires a planner to listen more than speak. Working with children in a school environment involves more than interdisciplinary knowledge sharing; it offers a dynamic and polymorphic opportunity to create, imagine and transform community knowledge into action. Thinking and communicating across disciplines and divides of all kinds is integral for participatory democracy. Leonie Sandercock suggests:

Participation is itself a developmental activity, the practice of which leads to improved participatory processes. Critical learning processes occur. New activists learn the basics of collective decision

making, and administrative knowledge is demystified. Skills of negotiation are being developed which have made it possible to account for distributional justice through participatory decision making. As people gain experience, they learn that often selfishness can backfire, and that concern for others' needs does not necessarily diminish one's own benefits (1998, p. 151).

Participation is revealed as a method of learning to work towards community decisions through a process of understanding. It is a valuable life skill for students of every age. To achieve healthier, safer, greener, convivial and sustainable cities, we must participate collaboratively (Brundtland, 1987, Kretzmann and McKnight 1993, Roseland, 2005; Wates, 2006 and many others). Participation in collaborative problem-solving is emphasized throughout Manitoba curriculum guides and is also an important lesson for every planning practitioner.

2.3 Planning with multiple publics

Participation is integrated at variable levels within the planning profession in Canada. Participation is included in the Manitoba Professional Practice Institute (MPPI) *Code of Professional Conduct* in section 1.4, which states members of MPPI will "identify and promote opportunities for meaningful participation in the planning process to all interested parties" (MPPI, 2008). Participation is not included in the mission statement of the national planning affiliate Canadian Institute of Planners (CIP). The omission of public participation from the CIP mission statement is problematic. The CIP mission statement and its website material emphasize planning is a professional service offered to the public and private sectors. It does not stress ongoing communication and literacy development within communities is required for sustainable planning practices. Engagement with multiple publics is not well articulated as a priority of the professional association. Although public consultation is legislated in the Planning Act in the form of

public hearings, participation is not well-accommodated at normative and strategic stages of planning. A review of the literature suggests that participation, though considered a best practice in planning, is still developing at the stage of implementation (Riggio, 2002; Knowles-Yánez, 2005; Cahill and Hart, 2007; Chawla et al., 2006; Kara, 2007).

Planning practitioners such as Leonie Sandercock, Patsy Healey, Henry Sanoff, John Kretzmann, John McKnight, and Mark Roseland, highlight the importance of engaging multiple publics in planning and design processes. Healey suggests planning and public policy are "social processes through which ways of thinkings, ways of valuing and ways of acting are actively constructed by participants" (2006, p. 29). Documenting and incorporating participant experiences is integral to the processes of planning and policy-making. This is supported by Gerald Hodge, who states "it is now accepted that the public should be not only well-informed but also directly involved in the development and application of planning tools (2003, p. 252). Although Hodge promotes participation, he characterizes "the public" as a singular entity. Asset-based community development emphasizes that many different groups of people comprise a neighbourhood, town or city (Kretzmann & McKnight, 1993). Recognizing unique strengths and abilities of many people in the participatory process acknowledges that multiple publics should be engaged in participatory processes. Young people are not a homogenous group and are also comprised of multiple publics. Planning with young people therefore requires multiple approaches based on the variable knowledge and experiences of young people.

2.4 A case study of community participation to improve school sustainability

Community participation is a goal shared by educators and planners. Laura Abrams and Jewelle Gibbs

suggest that community participation is integral in school reform policy in pursuit of more sustainable "multiservice" facilities. In one case study of Washington School in the San Francisco Bay area, Arbrams and Gibbs tell the story of a kindergarten to grade five school that endeavoured to increase community participation to improve their learning facility. Abrams and Gibbs suggest that community participation correlates "with academic achievement, attendance rates, and school accountability" (2000, pg. 80). The movement towards "full-service schools," also identified by Chung, Vincent and Kerchner, requires integration of a range of community services including those of health, parent education and after-school care.

To achieve full-service/multiservice schools, extensive community participation is required to achieve those goals. Abrams and Gibbs suggest that integrating community participation within school programming can be challenging. Schools are not accustomed to power-sharing and communication between a community and a school can be a difficult process (2000). They suggest that these collaborations can face major barriers if there is a lack of knowledge or teacher/community training in how to use and access resources and work as equal partners in a process of reform. Chung similarly concludes that community training is essential in school-community development partnerships (2002).

Chung, along with Abrams and Gibbs, emphasizes relationships between educators and the community must be built upon mutual trust and respect. Facilitation and training is required to achieve this. The conflicts and barriers revealed in the Abrams and Gibbs study indicate that power-sharing between the community and educators at the school can lead community participants to feel like "token" participants. This increases divisiveness between the school and the community and delays integrative planning goals.

The case study reveals a lack of training and experience in participation can exacerbate conflict. Washington School struggled to include parents of all cultures and social class groups. Participant perceptions were that "white, middle-class women from two-parent families participated most frequently on committees" (2000, pg. 87). Preparation, training and technical support for community members is required to mitigate unequal power-sharing. Ultimately, leadership posed the most significant barrier to school-community collaborations. Many believed the school principal did not have the necessary skills and abilities to achieve the community vision of the school. He was eventually replaced.

Five lessons emerge from the Washington School community participation plan for a multiservice sustainable school. Primarily, the researchers emphasize the importance of redefining the role of community participants as equal stakeholders in the decision-making process of the school. To achieve successful collaboration, educators must be provided with training and professional development to partner with community members in an equal role. Community members also require preparation and training to mitigate "feelings of disempowerment or tokenism" that can be accentuated in community-school relations "particularly in low-income and/or ethnic minority communities" (2000, pg. 98). Secondly, the school must be acknowledged as a potential barrier to success without placing blame on parents or educators. According to Abrams and Gibbs, schools mirror the neighbourhoods where they are located.

Recognizing the school itself as part of these structural forces, school staff and community members can adopt an integrated and realistic approach to improving the well-being of children and families. This is a part of the full-service model in which parents, community members, and school staff develop a shared analysis of the root causes of educational disadvantage as well as integrated and multilayered strategies for social change" (2000, pg. 99).

Subject to financial inequities, neighbourhood deterioration, bureaucratic neglect and other structural forces, schools are often indicators of community health. This illustrates why planners should evaluate the relationship of planning to schools as public infrastructure. Critically evaluating the role all stakeholders can play in the process, including children and youth, is the focus of this research.

The third lesson from the Washington School case study emphasizes the importance of clarifying the limits of power-sharing by defining roles of participants at the beginning of the process. Defining these roles can help to set boundaries, while creating a framework for community participants to review how their participation influenced outcomes. To this end, the fourth lesson suggests setting specific and realistic goals within a reasonable time frame. Institutional change is slow and small victories should be collectively celebrated. The final lesson is to recognize the challenges of working collaboratively. Abrams and Gibbs suggest "recognizing school staff and community members may not be fully equipped to converse with one another about school change is one part of the challenge" (2000, pg. 100). Common misunderstandings can compromise a collaborative process from the outset, according to Abrams and Gibbs.

The Washington School case study is valuable for understanding how community participation can be integral to school reform. It is clear that training for both educators and community participants in participatory processes would have eased the collaboration towards developing a multiservice facility for Washington school. Although community participation is emphasized as a key component of improving the school as community infrastructure, child and youth participation was not included at any stage in the Washington school case study. This was a significant oversight in the planning process. Including children

as key stakeholders in the process builds literacy both at school and at home. The difficulty Washington School had in attracting a diverse range of community participants may have been improved if children were participants in the discovery and planning process and brought their enthusiasm for the project into their homes.

Planning with multiple publics for sustainable school facilities is a sensible approach to determine the strengths and capacities of key stakeholders, as well as the needs and opportunities for the institution as community infrastructure. The future of multiservice community schools requires training for educators, community members and children who are primary stakeholders in school environments. Schools that provide student-centred learning that is engaging, hands-on and integrative are better prepared to accommodate community participation. Schools are public infrastructure as well as prominent social places in the lives of young people. Successfully planning sustainable schools requires collaborative community partnerships that include child and youth stakeholders. The importance of youth participation in this process is described in the following section. It defines the emergence of youth participation and the vital role of youth in sustainable development.

2.5 Youth participation in planning

Youth engagement gained momentum in the 1990's as three United Nations policies emerged and redefined global priorities. All linked participation (including youth participation) to sustainable development. The Brundtland Commission Report *Our Common Future* (1987), the UN Declaration of the Rights of the Child (1989), and Agenda 21 (1992) contributed to the characterization of the 1990's as the decade of the emergent global citizen. There was heightened awareness of the integral benefits

of participatory democracy. This principle is strongly supported by the Canada Council for International Cooperation, the Canadian International Development Agency, Oxfam and UNICEF (see also Parker, Nimomiya and Cogan, 1999; Westheimer and Kahne, 2004).

The connection between citizen engagement and sustainability established in the 1990's also signifies the emergence of youth participation in planning. Harry Shier states that "throughout the 90's a series of major national NGO's, including Save the Children, The Children's Society, NCH Action for Children and the National Children's Bureau, increasingly placed children's participation at the centre of their programmes" (Shier, 2001, p. 108). The United Nations Convention on the Rights of the Child (CRC) asserted the right of children to participate and be heard. The CRC was ratified in 1990 by all member nations of the UN except for the United States and Somalia. Article 12 is often sited as the most "radical" and significant of all rights in the convention (Simpson, 1997; Shier, 2001; Freeman, 2000) and assures that any child "who is capable of forming his or her own views has the right to express those views freely" (CRC, 1989). This is supported by Article 13 which states that:

The child shall have the right to freedom of expression; this right shall include freedom to seek, receive and impart information and ideas of all kinds, regardless of frontiers, either orally, in writing or in print, in the form of art, or through any other media of the child's choice (CRC, 1989).

Article 13 is significant because it guarantees the right of children to participate in democracy by any means of their choice. Michael Freeman (2000) suggests strengthening and implementing mechanisms to achieve the rights asserted by the convention is the next integral step to ensuring them.

Agenda 21, a UN policy for global sustainability, was outlined in 1989 and was revealed at Earth Summit in 1992. Section 2.22 in that document emphasizes the need for participation and public input in trade and environmental policies by all global citizens for a sustainable future. Citizen participation is also a fundamental tenant of Article 7, emphasizing the need for:

partnerships among the public, private and community sectors and participation in the decision-making process by community groups and special interest groups such as women, indigenous people, the elderly and the disabled. These approaches should form the core principles of national settlement strategies (Agenda 21, 7.4, 1989).

This is further supported in Section 25, which delineates the importance of active participation of children and youth "and actively involving them in the protection of the environment and the promotion of economic and social development" (Agenda 21, 1989). Agenda 21 asserts the need for participation – at all levels and with all people – for a sustainable future.

Gro Brundtland's report to the World Commission on the Environment and Development in 1987 UN, later titled *Our Common Future*, is addressed to politicians, business owners, and most importantly "this Commission is addressing the young. The world's teachers will have a crucial role to play in bringing this report to them" (Brundtland, 1987, p.16). The Brundtland definition of sustainability is most commonly used and understood. It states that sustainable development "meets the needs of the present without compromising the ability of future generations to meet their own needs" (1987). Sustainability is identified as having social, environmental and economic components. All three global policies draw a clear connection between participation and citizenship. The message is transparent; in order to achieve the goals of sustainability, all citizens, especially young people, must participate. Youth participation honours

children's right to citizenship and invites a fresh perspective to planning processes. Each generation will define priorities and shape the world with their choices (Howe and Strauss, 2000). This generation of young people faces a sustainability crisis of global proportions. Inviting them to participate in civic choices now will give them the experiential knowledge they will continue to use in the future.

Teaching sustainability is challenging work compounded by the overwhelming messages of a planet in demise. When engaging children, sustainability should not be presented as "doom and gloom" with frightening consequences which can be overwhelming to young people (Pramling-Samuelsson and Kaga, 2008, pg. 11). Teaching sustainability should be approached as a process of discovery learning.

David Orr suggests active student engagement is the best hope for a sustainable future. Engaging student citizens at the school level in hands-on projects for change has great potential. Timpson et al. suggest starting small and celebrating every victory when engaging students in projects for sustainability. They suggest using "active student led exercises," focussing on investigations, building on experience, widening participation and creating a peer culture of behavioural change (Timpson et al., 2006). When teaching sustainability, small tangible victories can go a long way towards helping students recognize their power for world changing. Teaching resources should include experiential learning opportunities that are classroom, or school-based, interdisciplinary, student-centered and child-friendly.

2.6 Educators and planners: partners for sustainable development

Educators and planners are both challenged to engage people in a process of sustainable development.

Although we share a common goal, there are, at present, limited opportunities for collaboration. In

Pedagogy of the City, influential educational theorist Paulo Freire writes "let's learn while teaching one another" (1993, p.20). Freire's philosophy of education advocates for fully integrative schools reflective of life experience as well as "learned" experience. Freire's vision for pedagogical reform is enmeshed with his analysis of the structural realities of school institutions designed primarily for student containment and management, not engagement and discovery (1972, 1993). Freire advocates for connected learning experiences. The disconnect between the planning profession and schools exists due to a lack of vital professional "cross-pollination" (Vincent, 2006, p. 433). Connections need to be developed at a range of levels with: children and youth, educators and political policy developers. My investigation focuses on the importance of engaging with children as key stakeholders in a school community to create more sustainable schools. Understanding how to plan with children requires specific knowledge, skills and values.

2.6.1 A case study of interdisciplinary collaboration

Didactic teaching practices are waning in the evolution of pedagogies emphasizing student-centered discovery and group collaboration (Abrams and Gibbs, 2000; Shulman and Armitage, 2005; Donnell, 2007). Vivian Shulman and Deirdre Armitage describe an innovative teacher training program in New York that promotes interconnected learning and hands-on discovery for students. In "Project Discovery", high-school teachers trained to engage students by creating "student-centered, motivating, and vibrant learning environments" which are "discovery-oriented" and interdisciplinary (Shulman and Armitage, 2005, p. 373). University students from a range of faculties participated as classroom mentors for student-centered projects. The goal was to deliver more hands-on learning opportunities for children while providing more support for teachers. This pedagogical approach is broadly supported in literature

studying the integration of the ESD initiative (Davis, 2008; Pramling Samuelsson & Kaga, 2008; Kennelly et al., 2008; Rode & Michelsen, 2008; Eames et al., 2008; McNaughton, 2007; Nikel, 2007; Firth & Winter, 2007).

The sustainability of the participant school in Project Discovery was in jeopardy. Low student engagement and issues of teacher retention and morale posed serious concerns. This was compounded by deteriorating school infrastructure and a surrounding neighbourhood challenged with the structural factors of poverty and neglect. Project Discovery emphasized the role of the teacher as facilitator in the learning process of the child. Following a series of professional development workshops in "discovery learning", teachers were provided with support from "teaching scholars," who were college students from a range of disciplines with a minimum grade point average of 3.0. The teaching scholars played an integral role in facilitating interdisciplinary experiences for students.

In this case study, Shulman and Armitage reported that recruiting college students as "teaching scholars" to collaborate with teachers in the classroom was "the most successful part of the program" (2005, pg. 390). Following the Project Discovery workshops, 80% of the teacher scholar participants reported a desire to teach in a high-needs urban school (2005, pg. 391). Teachers reported feeling "transformed," enthusiastic and supported in their role as educators.

In this five-year study, 63% of students "met or exceeded state standards...this compares with a decrease of 24% in the performance of students from comparable schools meeting or exceeding standards over the same 5-year period" (2005, pg. 382). Shulman and Armitage suggest that "empowered by a professional,

collegial environment, newly empowered teachers can then use extended instructional time to move away from didactic approaches toward inquiry oriented, constructivist methods and promote meaningful learning" (2005, pg. 394). Project Discovery illustrates how interdisciplinary partnerships can help support the professional development of teachers. Teacher scholars also gained valuable experience working with youth and developed competencies in facilitation and knowledge sharing. The interdisciplinary framework of discovery learning fosters dynamic and engaging classroom learning experiences for students that are effective in supporting the sustainability of the school.

The development, implementation and documentation of Project Discovery illustrates valuable lessons for integration of the ESD initiative. The initiative advocates for an interdisciplinary child-centered approach to achieve the goals of sustainability through education. It supports incorporating sustainability into all subjects and advocates that the program should begin at an early age. To achieve the broad interdisciplinary goals of ESD, teachers require both professional development and classroom support to implement discovery learning programs. The Project Discovery model in New York illustrates the benefits of interdisciplinary collaboration with great success. Websites and books are only one kind of teaching resource; true interdisciplinary support for the ESD requires richer collaboration and support from interdisciplinary professionals. In order for Freire's vision to be realized; we must learn while teaching one another.

2.6.2 The ESD in Manitoba

In Manitoba, the *Education for Sustainability* initiative emphasizes the necessity to integrate sustainability into all subjects, at all levels (Manitoba Education and Training, 2000). The vision statement of the ESD

states that "students will become informed and responsible decision-makers, playing active roles as citizens of Canada and the world, and will contribute to social, environmental, and economic well-being, and an equitable quality of life for all, now and in the future" (Manitoba Education and Training, 2000). The Manitoba ESD initiative emphasizes a pedagogical approach fostering lifelong learning skills for practical citizenship. This initiative supports the declared decade for sustainable development, as defined by UNESCO from 2005 to 2014. The guides represent top-down policy initiatives intended for broad implementation by educators. They are the legacy of the Brundtland report which states "the world's teachers will have a crucial role to play" in the future of sustainable development (Brundtland, 1987, p.16). Teachers have been asked to shoulder the responsibility of educating students for sustainable development with very little interdisciplinary support.

There are other challenges within the ESD support material in Manitoba. For example, within the *Education for a Sustainable Future* resource, "5m Use energy-efficient practices" advises students "conduct an energy audit of the school and suggest improvements" (2000, pg. 20). However, teachers are not provided with a resource for how to do this. This is a significant barrier to teaching and student participation. Here is one example of how interdisciplinary collaboration could be of significant benefit to teaching the ESD in an integrated way. For example, a school energy audit may be an opportunity for a partnership with "teacher scholars" as described in Project Discovery in New York. Opportunities to reduce waste and paper use, reduce water consumption, increase active transportation (walking to school), garden, advocate and participate in creating a healthy community are just a few discovery learning opportunities that could be framed as teaching lessons in the ESF document.

In the ESF, only two sample lessons are provided: "Toxic Fish" and "The Mosquito Fogging Dilemma" (2000). In the context of the broad goals of the policy, these seem insufficient for adequately supporting teachers with implementation tools for the ESD. Improvements to the support materials could start with a call to teachers for engaging approaches to sustainability they are already using in practice. A collection of these teacher-tested sample lessons could be compiled on a website. Student work could be submitted for an on-line archive.

Sustainability on the Manitoba curriculum website has altered significantly since this research began in June 2007. The appearance and access to ESD resources has been simplified into a more engaging package. In June 2008 the ESD initiative gained an automated web page link to the Provincial site and is supported by the Manitoba Education for Sustainable Development Working Group (MESDWG). A MESDWG "Choose the Future" conference promoted for November 2008 is described as:

a project of the Manitoba Education for Sustainable Development Working Group (MESDWG), which brings together stakeholders from the formal, non-formal, and informal education sectors in an effort to further develop, communicate and promote ESD in Manitoba (MESDWG, 2008).

These developments indicate that the ESD initiative is gaining support for implementation that was not present one year ago. The conference does not appear to provide an opportunity for student participation. As the literature will consistently show in Chapter 2, youth engagement and participation in the discovery learning process is integral to the success of ESD implementation.

Educators and planners can work as integral partners in professional development workshops and/or interdisciplinary classroom collaborations. Engaging with school communities at the local level is an

important step towards integrating schools into community development (Mullahey, 2008). To engage children at the school level, it is useful to share a common language with educators. This can be achieved by examining the structure and language of current curriculum to achieve this goal. In Manitoba, the social studies curriculum as well as the Manitoba *ESD* use the terms *activate*, *acquire* and *apply* to describe a three-stage process used by teachers to introduce and explore learning units. These three stages are used throughout kindergarten to grade twelve lesson planning.

Activation may include brainstorming, discussion and knowledge sharing about the subject students are preparing to explore. When children are acquiring they may read from print or electronic sources, research collaboratively in groups, and share information they have discovered. There is a focus on group knowledge sharing, collaboration and discovery. The social studies curriculum guide provides website links as resources for students to acquire information. In the final stage of learning, students apply their knowledge in a project or report. Students may work individually or collaboratively. These projects may be multi-media and involve writing, mapping, drawing or other forms of expression. Students generally share the work they have created and often participate in peer evaluation. All stages emphasize collaborative work, public speaking and discovery of information (Manitoba Education Citizenship and Youth, 2006). This approach emphasizes Freire's philosophy of education. Teaching must be a conversation, not a narration, in order to effectively engage young people. School-based planning should integrate this threestage approach of activating, acquiring and applying knowledge. As a result, educators will be more likely to accept and understand how children will be engaged and learn about planning processes. Children are familiar with this approach and may feel more comfortable and confident participating. Experienced curriculum developers have devised this process based on best practices and research. When preparing

to plan with young students, it is beneficial to mould a youth engagement process with this tool from the education toolbox.

Planners bring unique knowledge and skills to the engagement process. Planners can help students determine the assets of their school and neighbourhood as well as opportunities for improvement. Planners can offer a new way of looking at a school environment. Planners analyze community places and infrastructure (both built and social) based on our experience and knowledge of sustainable development. Engaging students in an analysis of their school environment is a practical, interesting and hands on approach to frame the concept of sustainability for young people. Based on the literature for youth engagement in planning it is important to provide children with choices and decision-making power throughout this process to enhance the participatory experience. Creating sustainable schools is an incremental process in which student engagement is a significant step.

2.6.3 International implementation of the ESD

In the UNESCO report *The Contribution of Early Childhood Education to a Sustainable Society*, Nicholas Burnet insists that "education is humanity's best hope and most effective means in the quest to achieve sustainable development" (2008, pg. 3). Multiple authors in the report suggest that an integrated, interdisciplinary and holistic pedagogical approach aligns best practices in pedagogy with effective methods in education for sustainability (Davis, 2008; Pramling Samuelsson & Kaga, 2008, and others). Julie Davis describes the Sustainable Planet Project implemented at an early years day care centre in Australia where students as young as two and a half participated in hands-on discovery projects for sustainability. Davis suggests that the participatory approach of the project illustrated that "children can critically respond to environmental issues and can be proactive participants in educational and

environmental decision-making – as initiators, provocateurs, researchers and environmental activists" (2008, pg. 22).

Active discovery oriented participation enables students to develop individual interests and an ethic of sustainability according to Davis. Educators engaged both children and their parents in the discovery learning projects. Collaborative and context specific learning was employed in this process. Students, educators and parents celebrated "small wins" in this practical approach designed to implement the *ESD* initiative. Students became aware of water usage in the classroom and monitored conservation of this resource. Students also planted a small garden, brought "litter-less lunches," re-designed their outdoor environment to include a frog pond, and developed literacy about recycling and reusing. Parental support was integral to this project. Davis concludes that hands-on learning through small school based experiences is an effective way to educate young children about sustainability. Children must have opportunities to collaborate as "agents of change" in the implementation of the ESD.

Implementation of the UN DESD initiative has been evaluated by researchers in the United Kingdom, Australia, New Zealand and Germany. Horst Rode and Gerd Michelsen have developed a set of indicators to evaluate the implementation of the ESD in Germany where 200 schools were engaged in the introduction of the ESD initiative from 1999 – 2004 (2008, pg.19). School facilities in Germany are "expected to incorporate ESD in their school programmes and profiles as well as in their curricula and in daily school life" (2008, pg. 19). Evaluating the efficacy of this policy can be challenging. Rode and Michelsen identify that assessment is occurring at the levels of student performance, educational institutions, and the framework at the national political level. They suggest that a unified set of indicators

accepted by a variety of educational institutions would benefit ESD implementation. They suggest that given the variety of cultural interpretations of sustainability, self assessment by educational facilities is an important component of evaluation. In their evaluation, they suggest broad implementation of the ESD is occurring in England and Germany due to significant national support. However they conclude that many schools are still struggling both to understand and implement the ESD.

Rode and Michelsen suggest that the ESD must be supported at the micro-level of student participation, the meso-level of educational institutions and the macro-level of national and international political policy and support (2008, pg. 26). At the meso (institutional) level of implementation and evaluation they emphasize interdisciplinary participation as a key factor for success. Professional development for teaching staff and quality support materials are also identified as key components of meso-level implementation of the ESD. At the micro (student) level, they suggest that participation and involvement of students directly in the school environment may easily be connected to ESD (2008). Integration of the ESD should be "subject-spanning, participative, situation oriented" and include student self evaluation (2008, pg. 26). Dedicated areas, materials and timeslots for ESD within educational facilities are also a priority.

Collaborations with universities are an important tool for supporting teachers. This is an opportunity for planners to participate in the ESD education process. Rode and Michelsen suggest that evaluations of school sustainability should be carried out at the beginning, or end of each school term. They recommend providing opportunities for participation within the school and surrounding environment. Parents, students and educators should be encouraged to work together in these evaluations. They state that participation could be evaluated by university researchers to determine "what percentage of the students 53 is [sic] reached, how often and what measures are supported by parents and the school environment, and in which areas participation is developing" (2008, pg. 29).

Classroom and school-based discovery learning is emerging as a best practice for implementation of ESD. At the student, or micro-level, participation is identified as a key indicator for successful integration of the ESD initiative. Indicators should evaluate "situated and self-organized learning" emphasizing the importance of the discovery learning process. Rode and Michelsen conclude that evaluating implementation of ESD is challenging, as most approaches focus on the institutional and national levels neglecting the integral role of student-centered participation (2008, pg. 31). This is substantiated by a body of emerging research in the field of ESD implementation and evaluation.

Professional development and teacher education is a measurable component of the ESD initiative. Jutta Nikel suggests that little is actually known about how teachers understand their professional task of implementing ESD (2008, pg. 548). Nikel suggests that in her evaluation of 30 student teachers from a range of disciplines in England, Denmark and Germany, successful ESD implementation is more a factor of a personal ethic and understanding of sustainability, not necessarily a curriculum mandate. This is consistent with the research of Eames, Cowie and Bolstad (2008) who evaluated the grassroots (teacher driven) origin of Environmental Education (EE) in New Zealand which led to research and implementation of Education for Sustainability (EFS) by the Ministry of Education.

In a collection of case studies compiled by Eames et al., teacher investment in environmental education was an instrumental factor in the success of Education For Sustainability (EFS) in New Zealand schools.

The study suggests that "whole-school" implementation approaches for EFS was limited to 12% of

institutions they examined. Participant teachers suggested that a lack of institutional level support was a barrier to connecting projects that involved the whole school community. The New Zealand study did credit student-centered discovery learning projects like school gardens as improving student success rates, particularly for those "who were having difficulties with learning, socialization, or anger management" (2008, pg. 44). Eames, Cowie and Bolstad suggest that student engagement resulted in increased competencies in leadership and decision-making. Students identified discovery learning projects like the garden, compost system, worm farm, and creating a funding proposal generated excitement and interest for EFS concepts. Eames et al. identify student participation as an area for continued research.

Teacher training is also highlighted in research by Julie Kennelly, Neil Taylor and Kathy Jenkins (2008) who report on teacher perspectives of active student engagement in the Sustainable Schools Programme (SSP) in New South Wales, Australia. They suggest that the gap in student education for sustainability must be addressed through adequate teacher training and support as well as student participation in activities to improve the school environment (2008, pg. 54). They reveal that although teachers report believing in the importance of EFS, "whole school approaches and learning for sustainability are not well understood by many teachers" (2008, pg. 62). Winter and Firth support this by suggesting ESD is "a complex and contested concept; teaching about sustainable development in school involves engagement with controversial values and attitudes and raises importance questions about knowledge, curriculum policy, teachers' frameworks of thinking and their essentially moral nature" (2008, pg. 342). Teacher training and professional development in the context of ESD implementation in Manitoba is subject for future research; particularly following the November 2008 "Choose the Future: Education for Sustainable

Development" conference designed for educators.

Following teacher training, emergent research on ESD implementation emphasizes the importance of student engagement and participation. Interdisciplinary partnerships, particularly with universities, are emphasized in the work on ESD indicators of Rode and Michelsen (2008). Partnerships at all levels: student, institutional and national, are important for the success of ESD. Planning professionals can offer valuable knowledge and experience to this process, particularly in the area of community development.

In Canada, planners currently have several tools and models at their disposal to begin an engagement process with children and youth. These include the Canadian Institute of Planners A Kid's Guide to Building Great Communities, Child and Youth Friendly Calgary and Ottawa (CYFC, CYFO) organizations as well as a many resources on the American Planning Association website for youth engagement in planning directed by Ramona Mullahey. These resources provide examples and suggestions to engage youth in city planning in both neighbourhood and school environments.

2.6.4 A Canadian planning guide for schools

The Canadian Institute of Planners (n.d) has produced a curriculum style document called *A Kid's Guide to Building Great Communities*. It is a starting point for introducing planning concepts to children. It focuses on the surrounding community and emphasizes knowledge and values of social sustainability, a component of the ESD/ESF. The strength of this document is the clear actionable lessons presented in a similar format to blackline masters (lesson examples) found in Province of Manitoba Curriculum guides. As blackline masters are a familiar tool for most educators, the resource can be useful for teachers.

One tool in the *Kid's Guide* is borrowed from the Center for Understanding the Built Environment (CUBE). The CUBE (2002) model presents tools for creating a Box City designed to build planning literacy with children. Box City was a concept developed in 1983 in the United States with the collaboration of architects, preservationists and educators. Founder Ginny Graves established The Center for Understanding the Built Environment and has helped implement Box City in thousands of schools. Box City curriculum support modules are available for purchase and include teaching materials. The tool is participatory, imaginative and creative. It enables students to create cities of their imagining with a variety of materials. Box City was implemented by Michael Gray (1998), in his thesis *Planning With Kids: An Evaluation of Children's Environmental Behaviour Using Mental Maps.* Gray used a single-event planning day as a culmination event for eight weeks of an urban studies curriculum that focussed on the production of mental maps. Gray taught urban planning concepts that prepared students for the Box City events. This tool is experiential and engaging for young people.

The Canadian Institute of Planners, *A Kids Guide*, outlines strategies and lessons for neighbourhood exploration and mapping. Barriers to conducting neighbourhood tours may involve ethics approval, safety, liability issues, behavioural challenges, or even severe weather. In Manitoba, inclement weather can be a barrier to participation for children with mobility challenges. A snowstorm may make it difficult to explore the neighbourhood, if child participants use a wheelchair or other mobility aid. Relying solely on the outdoor environment is a missed opportunity. It is useful to illustrate how actions within the school impact the environment outside of the school. The lessons could easily be used to explore concepts of sustainability as an interdisciplinary support to Manitoba educators. Dissemination of this tool is currently a missed opportunity.

Although the guide is available on the CIP website, there is no link to the Manitoba curriculum website. Currently, the ESD/ESF support documents are too broad in scope and do not make connections to the school environment as a place to activate, acquire and apply a student-led sustainability inquiry. There is a fissure between the goals of the ESD/ESF in Manitoba and the supports provided to schools. Educators may require additional tools, interdisciplinary supports and access to material resources to more successfully integrate the mandate of the decade for sustainable development into their curriculum. A partnership between educators and planners could provide teachers with professional development support. Policy and support for interdisciplinary collaboration would significantly improve opportunities for planners and educators to make necessary connections. These collaborations should go beyond workshops and conferences. Engaging children and youth is integral in this process.

Engagement is an effective strategy to provide young citizens with the knowledge, skills and values to make the necessary choices for a sustainable future. A number of methods and approaches exist to guide planners as they prepare to work with young people. The following sections review best practices for engaging children and youth in participatory planning practice. Seven approaches are presented in the literature review. Several of the approaches build upon a set of common themes and ideas. As each planning scenario is unique, a variety of approaches is useful when planning child and youth engagement.

2.7 Models of participation for planning with children and youth

There are many models, strategies and approaches to youth engagement in planning. The following seven examples share components emerging from participatory praxis. These examples are not definitive, but do offer planning practitioners a practical approach to engaging with young people. Attitudes towards

power-sharing and the challenges of adult-child hierarchies are significant themes that emerge from a review of these approaches. Providing support that does not strive to control inquiry outcomes of student-led research is important for planner-student partnerships to succeed.

2.7.1 Arnstein's Ladder of Citizen Participation

Participation is intrinsically linked with social justice. In response to the variable integrity of participation in planning that she observed, Sherry Arnstein developed the "Ladder of Citizen Participation" (1969) which has become a seminal model for participatory planning. In Arnstein's ladder (fig.1), the last three steps describe methods of so-called authentic participation as: partnership, delegated power and citizen control (Arnstein, 1969). Arnstein emphasizes that gradations of participation are often present. The ladder was conceived as a tool to identify non-participation schemes masquerading as a service to citizens. The model was intended to draw attention to participation as "window dressing" that did not provide citizens with a forum to listen and be heard in a meaningful way. Arnstein asserts that without equalized power sharing, citizens would only be frustrated by their marginal participation in a process.

Arnstein's ladder continues to be an influential model of participation. It enables participants to categorize project approaches with clarity. Public participation that enables actual citizen power is still very rare more than thirty years after Arnstein identified the problems inherent in planning praxis. There is often little political will to engage citizens in real partnerships or delegate decision-making power in neighbourhood planning. Although public hearings are required by law, they are most often characterized by informing citizens of proposed plans, consulting citizens and negotiating with or placating citizens in this process. Citizen engagement should occur early and be ongoing in a planning process. Public hearings 59 should be able to illustrate a well documented participatory process that engaged multiple stakeholder groups. However, the goals of citizen empowerment through participatory planning are rarely achieved in practice.

Henry Sanoff suggests in *Community Participation Methods in Design and Planning* that participation has regressed from Arnstein's notion of "citizen power" and is now "more modestly defined to include information exchange, resolving conflicts, and supplementing design and planning" (Sanoff, 2000, p.8). Sanoff suggests that building community literacy through participatory processes is an important outcome. Participants should not be limited by age, gender, race or ability. This is echoed by Kretzmann and McKnight (1993). They emphasize that every person within a community has capacity to participate.

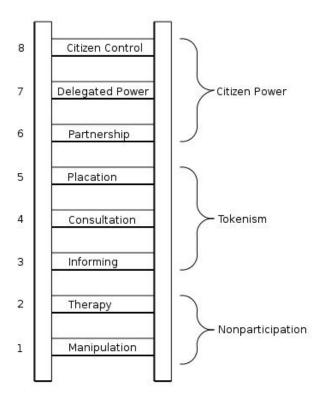


Fig.1 Arnstein's Ladder of Citizen Participation, 1969.

They also suggest that "the most powerful communities are those that can identify the gifts of those people at the margins and pull them into community life" (Kretzmann and McKnight, 1993, p.28). Local youth are recognized by Kretzmann and McKnight as integral to community building processes.

2.7.2 Hart's Ladder of Children's Participation

Opportunities to include youth in planning processes have often been tied to community development goals. In *Children's Participation: the Theory and Practice of Involving Young Citizens in Community*Development and Environmental Care, Roger Hart (1997) suggests that children's participation can take the form of action research, environmental planning, management and monitoring, building public awareness and making connections at the local level to global issues. Hart emphasizes the importance of providing hands-on experiences and opportunities to include young people's observations and analysis. Within the context of a school environment, Hart suggests that monitoring school grounds for environmental change can be an interesting project for children, but notes that this is often more successful if a major transformation is about to take place. Hart identifies long-term monitoring as an opportunity for school-based participatory planning with children. He suggests that school curricula needs to incorporate sustained monitoring to make year-to year comparisons of environmental change.

In school environments, children participate with the direction and guidance of teachers. Schools are strictly guided and influenced by educators. In response to adult-child power relationships in participatory planning projects, Hart created the "Ladder of Children's Participation" (1997). The ladder follows Arnstein's model and responds to a tendency towards "adultism" in participatory planning that can marginalize youth participants and involve them only through: manipulation, decoration and tokenism.

Hart emphasizes that the ladder should not be interpreted as merely a hierarchical structure (see fig. 2) (Hart, 1997).

The first three levels of Hart's model identify projects that are not participatory. Manipulation of children includes projects where children's work or words are used without providing opportunities for their participation. For example, adults may select drawings created by children for a book or brochure, without providing any information to children about how or why their photos are being used. Images may be used to promote a cause that the child has not been given the opportunity to fully understand. Representation of children's participation should be authentic and describe the process of their involvement. Children should have the opportunity to help edit or select representations of their work. In projects of decorative participation, adults may work extensively on a project and deny the extent of their involvement. A school garden or mural largely designed and executed by adults but credited as the work of children illustrates decorative child participation. Decorative child-participation is used to generate support for a cause or project. Children will not have had the opportunity to understand what they are promoting. Decorative participation is performative without being informative to the child participants. Children may be brought out to sing or carry signs for a cause they have not been given the tools to understand.

Token consultation often occurs in the form of surveys or questionnaires for a project such as schoolyard greening. In token participation, the results of the survey will not be sufficiently communicated back to the children. Children will not be provided with opportunities to understand how their participation was of value to the project. While children may be allowed to attend project meetings, they will not be invited to participate equally. Efforts to engage children will gesture at participation, but are consultative and non-

participatory. Tokenism can also describe selectively choosing youth representatives to give a face to an issue. These participants are selected by adults without being elected by their peers. In all forms of non-participation, children do not have opportunities to research and make discoveries on their own.

In Hart's fourth stage of participation, children are assigned a project and provided with information. Hart refers to this fourth stage of participation as "assigned but informed" or projects of "social mobilization."

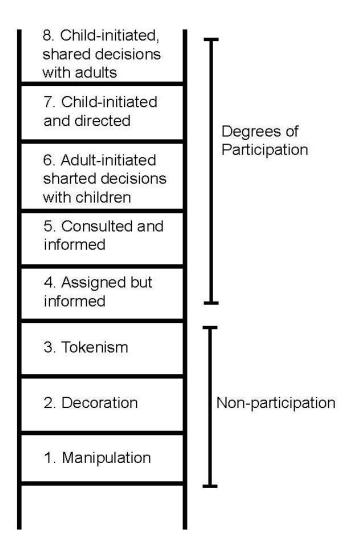


Fig. 2 "The Ladder of Children's Participation" Hart, (1997), adapted by Marcella Poirier

He suggests that social mobilization projects are often not participatory, but can function as a first step to more substantial participation by young people. According to Hart, "social mobilization alone achieves very little in the democratization of children. These efforts carry simple messages from the top down — that is, from adults to children — and have only short term impact" (2002, p. 43). Projects for social mobilization may include an area clean-up or a campaign that raises materials, awareness or funds for a specific issue. Hart suggests knowledge of the participant community is required. Large projects of social mobilization can be useful to bring a great number of children on board to work together on one idea. In a school context, projects for social mobilization may serve to unify whole school communities for a common goal and can have inspiring results, such as large donations to a specific goal like poverty alleviation, waste reduction, literacy or community health. Hart concludes that these projects must be followed up with more substantive opportunities for engagement and discovery, which include children's perspectives in order to truly have impact with young people.

Hart suggests that young people can participate authentically at four levels. In projects where young people are "consulted and informed" they have opportunities to provide input throughout the process of participation. A mechanism to provide feedback for their input must be in place in order for young people to understand how their participation affected a project. Surveys and questionnaires are often used but must include an opportunity for children and youth to discuss the results and observe how their opinions were seriously considered in the process. Projects which are "adult-initiated that share decisions with children" provide opportunities for teaching and learning experiences for all people in a community. The goal of these projects should be inclusive. Facilitators should make no assumptions about participant needs and ensure all discoveries are well-documented. Children should be involved early and at every

stage of the project. A school greening program could also function as an example of an adult-initiated project that shares decisions with children. The transformation of school grounds may take several years to complete. Sustained engagement of students in the process needs to invite participation with a variety of methods to create a legacy that is well understood by the school community. Students may participate in the design of questionnaires and surveys. Children may be involved in creating maps and plans of the project area or creating inventories of the existing school-yard ecology. Student compiled data should be collected in a long-term documentation system to ensure new students understand and value the changes that are part of a longer project. This may take the form of a project board, web-site, photo-narrative, or scrapbook. Because school populations transform yearly, the decisions children have made in the past will affect children in the future. The story of this process should have a transparent project history in order to create a legacy of participation. Children in schools may not be able to participate in all decisions nor have all of their ideas included. It is very important that children understand the project and compromises that may have been made in the process to avoid the result of token participation.

Projects which are "Child-initiated and directed" are not necessarily rare, but are rarely documented as adults are generally not invited to participate at any stage. Often, these projects are kept secret to prevent adult interference. Secret play spaces and hidden treasure troves characterize the nature of this type of project. Child-directed play, adventure and discovery free from adult intervention describe children's participation in their environment without adult intervention. Providing space for child-initiated learning within a school environment has been the focus of this pedagogy, which emphasizes the need for educational environments that accommodate child-centered learning.

"Child-initiated" projects invite the participation of adults and can provide opportunities for mutual teaching and learning. To support child-initiated projects, adults must possess the necessary knowledge, skills and – more importantly – the values of participation, to work as equal partners with children. At the "highest" levels of participation children and adults share decision making power and work collaboratively to achieve desired outcomes. This is significant in the context of youth participation in a school environment. Hart suggests that engaging children requires a focus at a local level. He suggests that observations made by children can help define projects that are significant to them. Schools seem like a logical place to start when asking children to make observations of their environment. However, this can be limited by the nature of school institutions which may emphasize the status quo, not social change (Hart, 1997, pg. 57). Designing workshops for a school environment can be challenging. When identifying partners for collaboration, it is useful to consider Hart's model in the context of Harry Shier's "Pathways to Participation" (2001). The capacity and readiness of adults to participate with children should be evaluated alongside the level of participation the project is striving to achieve.

The Ladder of Children's Participation is not intended to function as a structural hierarchy. Hart suggests the ladder does not necessarily function in a linear manner. Participatory projects are fluid. Based on need and circumstance, children and youth may be participating at different degrees throughout the life of a project. Once projects move beyond tokenism, each degree of participation may occur and be equally acceptable in a community context.

2.7.3 Shier's Pathways to Participation

Harry Shier's (2001) model "Pathways to Participation" responds directly to Hart's Ladder of Children's

Participation. Shier removes non-participation and focuses on the five participatory levels. The Pathways model provides guestions adults must ask themselves before beginning or proceeding with a project with children. The Shier Pathway is an effective barometer for adult attitudes towards children and youth for democratic participation. It identifies three stages along the path that must occur to achieve the minimum level of child and youth participation identified by the UN Declaration for the Rights of the Child.

In the first three stages, adults must be prepared to listen, support and hear the views of children. At the first level, adults are asked to evaluate if they are prepared to actively listen to children. The second level requires adults to ensure support (including time, location and skills) are in place to listen to children. The third stage requires adults to support children as they express their views. Adults will require a range of effective communication skills and be open to a variety of methods for youth expression. Adults should be prepared with ideas to encourage and support expression of children with multiple competencies. At level three, children's views are incorporated into the project outcome. Young people should be able to recognize how their participation contributed to the overall project. Outcomes may not always reflect ideas or suggestions from youth, but their omission should be explained to child participants. The process should be child-friendly, transparent and illustrate why outcomes may not have been possible.

At the fourth level, children participate in the decision-making process. Shier suggests that the benefits of children's participation in decision-making "include improving the quality of service provision, increasing children's sense of ownership and belonging, increasing self-esteem, increasing empathy and responsibility, laying the groundwork for citizenship and democratic participation, and thus helping to safeguard and strengthen democracy" (2001, p. 114). The fifth level is similar to the fourth with one radical 67 distinction. Children's participation in decision-making is equal to adults and can effect real change. Level five advocates complete power sharing with young people.

The Pathway model asks adults to identify if they have both the tools and policies in place to support a participatory process. Shier identifies that a range of ideas may be required to help children express themselves. This emphasizes that engaging children in a participatory planning experience must be well-plotted in advance at both structural and philosophical levels. Shier emphasizes that mechanisms must be in place to enable children to see how their views have been incorporated in a decision making process. The Shier Pathway is a useful tool for adult facilitators preparing to share responsibility and decision-making with children. In a school environment, this program would be a powerful and effective tool to determine the possibility for collaborative partnerships between planners and educators. The pathway emphasizes that the process of engaging children requires adults to re-think relationships of power and control with young people.

2.7.4 Jones' and Perkins' Continuum of Youth-Adult Partnerships

The Jones and Perkins continuum of youth-adult partnerships describes a participatory project approach for adults and youth (2005). The continuum (fig. 4) illustrates five stages of youth-adult collaboration. In Adult-Centered Leadership, programs are presented to youth and are completely driven by an adult agenda. Youth involvement is non-participatory, because it is the product of completely proscribed learning with no ability to influence decision-making. The unique knowledge and experiences of young people are marginalized in adult-centered leadership. Adult-centered leadership may characterize how students are accustomed to receiving information at school.

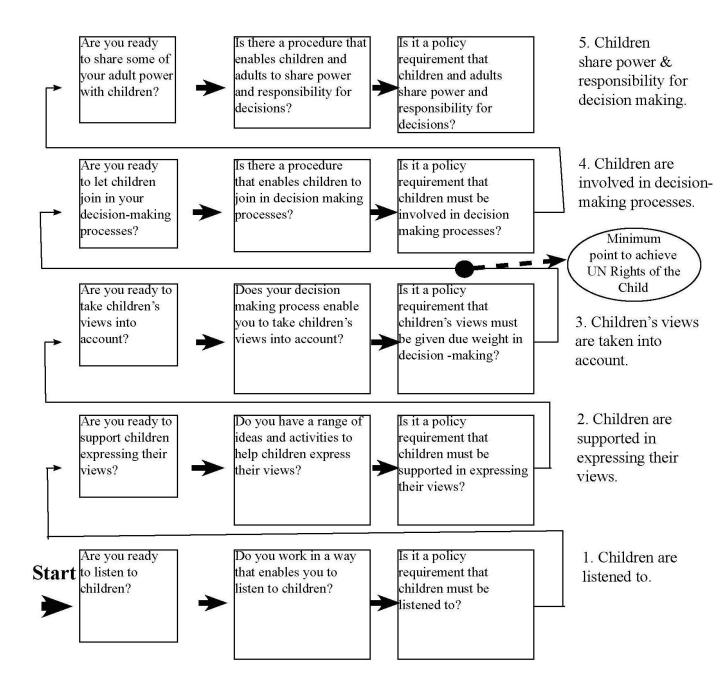


Fig.3
"Pathways to Participation"
from Harry Shier, (2001)
adapted by
Marcella Poirier

Projects involving Adult-led Collaboration provide some opportunities for young people to participate in decision making, but are limited. In these situations adults may present a program as participatory, but outcomes are generally proscribed. In a school context, this may apply to a schoolyard greening program where students are invited to provide information of opinions in the form of a survey or even a charrette. Youth participation in Adult-Led Collaboration is not carried through in these projects and is generally not well documented at middle and end stages. Students may not understand how their participation at early stages is reflected in the project outcome.

In authentic Youth-Adult Partnership projects, participants have equal chances to make decisions, learn collaboratively and carry out tasks together for a common goal. These projects can be sustained in a school environment, as adults can help support a project legacy and maintain the project goal. School-focussed sustainability assessments could work as a youth-adult partnership if students had opportunities to determine their own research goals and investigations.

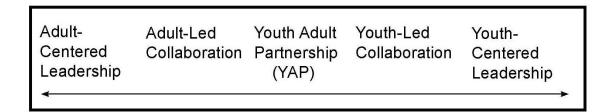


Fig. 4 Continuum of Youth Relationships from Jones & Perkins, (2005) adapted by Marcella Poirier.

Youth-Led Collaborations are primarily imagined, developed and carried out by young people. Adults may provide some assistance if requested by youth. In a school context, these projects are rare and especially difficult for younger students to conceptualize. Most classroom projects, even if they allow for significant student autonomy and choice, are introduced by an adult. Student-led groups outside of the classroom context that focus on a specific issue or goal are an example of a Youth-Led Collaboration. This may include a group or club organized for the protection of the environment, social justice or other youth-identified issue. Sustaining these youth-led groups can be a challenge with the constant turn-over of the student/youth population.

Youth-Centered Leadership characterizes projects that are carried out with little or no adult involvement at any stage. Youth-Centered projects are similar to Hart's seventh rung on the Ladder of Children's Participation "Child-initiated and directed projects". They are often carried out without being connected to any formal institution or organization. Children may organize spaces or projects in their neighbourhood on their own such as a neighbourhood clean up, dog walking service or secret meeting place. Driskell defines this type of project as "children in charge" (2002).

2.7.5 Driskell's Dimensions of Young People's Participation

Participation with children and youth in planning requires adult participants who possess the knowledge, skills and values of power sharing. In *Creating Better Cities with Children and Youth*, David Driskell suggests that many adults who perceive themselves as child advocates "have attitudes towards young people that undermine their support for child and youth participation in community development" (2002, p.37). Driskell suggests that a democratic attitude towards child and youth participation is integral. Building

on Hart's Ladder of Children's Participation, Driskell has developed "The Dimensions of Young People's Participation" (see fig. 5). In this model, Driskell illustrates that consultation and social mobilization run the risk of non-participation, when young people are not provided a forum to provide feedback and have their opinions seriously considered.

In projects of "social mobilization", young people must have the opportunity to develop an understanding of their participation and have their opinions and ideas clearly represented in the outcomes. "Children in Charge," like the seventh rung of Hart's ladder or Jones and Perkins "Youth Centered Leadership," characterizes self-directed projects carried out by children and youth without adult interference. Shared decision-making is once again presented as providing the most significant opportunities for collaboration between young people and adults. Driskell writes that shared decision making occurs when:

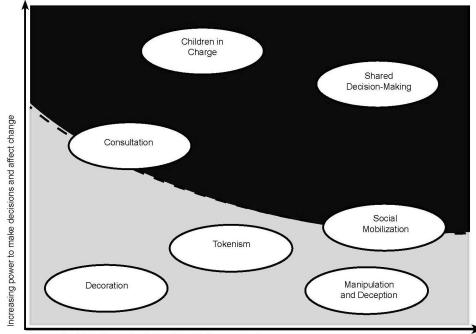


Fig. 5 "The dimensions of young people's participation" from David Driskell, (2002) adapted by Marcella Poirier

Increasing interaction and collaboration with the community

every member of the community, regardless of age or background, ha[s] the opportunity to be involved in the process and ha[s] an equal say in decision-making...These projects are the essential building blocks for creating more vibrant democracies and communities that respond to the needs of all residents (2002, p. 42).

The power to make decisions that effect change corresponds to authentic child and youth participation.

This emphasizes that engaging children in planning for a sustainable school environment should include opportunities to participate genuinely in decision making processes. Driskell emphasizes children who are provided with more opportunities to interact and collaborate with community members will have more tools to successfully participate as active citizens.

2.7.6 Matthews' Typology of Community Action

Like Driskell, Hugh Matthews suggests community collaboration is an important factor in sustainable youth participation. Matthews' (2003) "Typology of Community Action" (fig.6) attempts to classify participation based on the observable characteristics of the process. He has identified four types of youth-adult relationships that emerge in community development projects which include: dialogue, development, participation and integration. Each of these four types of participatory community development projects has a correlative result of communication, reconstruction, rehabilitation or regeneration. In type 1 projects, dialogue characterizes interaction between adults and children. Children are consulted and listened to by adults who ensure their opinions and ideas are taken seriously. This type of project is designed to understand the needs of children through a consultative process. Projects that engage young people using dialogue may include documenting the voices, writing and representation of young people.

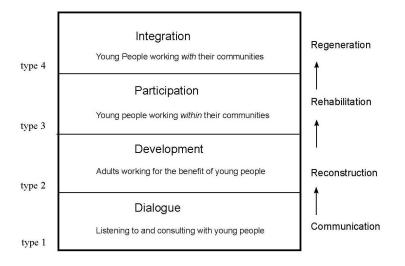


Fig.6
"Typology of
Community Action"
from Hugh Matthews,
(2002) adapted by
Marcella Poirier

The second type of community action is *development*. In *development* projects adults work for the benefit of young people. Child and youth participation is very limited or does not occur. *Development* corresponds with reconstruction and may involve some level of intervention to improve safety and security.

Development projects may benefit children and youth and serve them by improving structural factors, but they do not empower participants. Matthews suggests that child participation is marginal in *development* projects, which are generally conducted *for* the benefit of children not with children. Reconstruction that emerges from *development* should enable young people to work within their communities.

When community action is characterized by *participation*, young people gain capacity to effect change in their local environment. As agents of change, these young citizens become part of a process of community rehabilitation. The process of engaging young people in community action creates a sustainable multi-generational understanding of the root causes of an issue faced by a community. Youth participation strengthens legacy projects and enables them to be more successfully carried forward in the process of community development.

Matthews suggests projects characterized by *integration* are rare. In this type of community action, young people work with their communities in equal partnership with adults. Matthews suggests that integrative planning is a desired goal but is rarely achieved as adults generally do not view children and youth as equally competent decision-makers. *Integration* requires the fundamental acceptance of youth citizenship and rights at all project stages. Matthews suggests that integrative projects have regenerative powers in community development. He argues that "participation is an essential and moral ingredient of any democratic society – enhancing quality of life; enabling empowerment; encouraging psycho-social well-being; and providing a sense of inclusiveness" (2002, p. 270). He goes on to argue that in spite of clear advantages of child and youth participation, little has been done to translate theories into effective participatory practice.

Matthews recommends improving child and youth participation in communities. He emphasizes that young people should become equal partners in community regeneration. Community programs should be inclusive from the start and involve young people at every stage. Flexible training should be provided and young people should be supported and trained in how to negotiate with adults. A strategy for achieving active participation from all children should be utilized. Matthews asserts children's rights as citizens must be taken seriously by adults. Challenges to child competency must be examined and dismantled against the wealth of knowledge these citizens have about their environments. Matthews concludes that:

Only through regular participation will children develop an understanding of their own competencies; gain a sense of communal responsibility; and become equipped with the skills needed to plan, design, monitor and mange their own physical and social environments (2002, p. 274).

Matthews emphasizes that a learn-by-doing approach that includes children and youth is fundamental for sustainable community development.

2.7.7 Youth in Focus – Youth-led Research Evaluation and Planning (Youth REP)

Practical engagement in real-world experiences and projects is emphasized by Youth REP. This approach was developed by Youth in Focus in San Francisco, California, to create opportunities for young people to lead and participate in improvements for sustainable and just communities (London, Zimmerman and Erbstein, 2003). The program uses an evaluation and training method that prepares adults to share decision-making power with young people. At its core, Youth REP is a tool for dynamic participation in real community based projects. The model critiques institutional efforts that are isolated from communities where youth are "developed" through controlled activities that have little relevance to individual youth realities.

The Youth REP model is important when evaluating the integration of the ESD initiative into Manitoba schools. Without hands-on experiences, children are not engaged. London, Zimmerman and Erbstein suggest that young people should not be denied an opportunity to be "critical and constructive stewards of their community and agents of community change" (2003, p.35). Youth REP enables young people to determine priorities. This process is vital in sustainable community development. London et al. suggest that "young people's needs are often indicators of the most critical issues facing the community at large" (2003, pg. 35). Without youth engagement, programming for the future of a community is not sustainable. The Youth REP model advocates that young people engage in all documentation and research in order to fully benefit from participation. Relationships with "adult-allies" should reinforce youth competency and

decision-making in the research process. The Youth REP model for participation emphasizes that young people possess the greatest knowledge of their own environments. Like experiential education, popular education and service learning that emphasize the role of citizenship in student learning, the Youth REP model links active democracy to the learning process (2003). Responsibility, leadership and social justice are all components of Youth REP. This model requires not only that young people participate, but that they evaluate the process and effects of their own participation.

Like Shier's "Pathways", Youth REP emphasizes the importance of adult training to share decisions with young people. Some professionals may feel more at ease with sharing power than others. Challenging personal assumptions about power sharing is valuable for all community planners. Workshop facilitators should prepare and train in order to support participation with all people, especially children and youth. Planners and other professionals rarely receive specific training in youth engagement strategies which are fundamental for democracy. The possibility of using Youth REP to implement the ESD initiative in schools would require significant support from teachers, administrators and politicians. As the model requires hands-on opportunities for youth participation, school administrators and educators have to be prepared to support students.

Evaluation of the school environment could take many forms. This process could become a long-term facility plan to improve school sustainability. Communication of school evaluations could be creative or scientific. To fit the Youth REP model, projects must be student-led. To achieve this goal, adults must enable students to lead in the process. This may be very challenging in school environments where students have nominal decision making power. Like other models for youth participation, hands-on

experience is integral to the Youth REP model. In a school facility, student-led research, evaluations and planning would enable implementation of the ESD.

The literature reviewed all has one factor in common. Authentic participation can only occur when power is shared between all participants. A democratic attitude recognizes the right of all participants, especially children, to participate is required for any facilitation or leadership. Training in participatory practices will strengthen the participatory goals of any project. Every situation will have unique factors and characters. As a result, no two participatory experiences will be the same. Participation is not static. Although each model presents a structure, all emphasize participation as fluid.

2.8 Participation in the school environment

In A Pedagogy for Liberation Ira Shore and Paulo Freire (1987) identify the paradox of teaching democracy in a school environment. In schools, students have few opportunities to participate in decision making. Shore and Freire assert that teacher control is required, but conclude that authority must never be authoritarian. Freire and Shore emphasize the necessity for teacher flexibility that can share power with students at different levels and at different times. Creating opportunities for students to research, evaluate and plan their own sustainable schools requires a sophisticated level of adult-student power sharing.

Shaun Fielding suggests primary school environments are designed to modify and control behaviour, not inspire student-led discovery learning. The message to children in schools is to behave as "good learners." This is conveyed through visual, verbal and auditory cues. Fielding suggests when teachers and students are free to develop their own framework of accepted behaviour together, the result is much more

successful. By shifting what Fielding describes as the "moral geography" of the classroom, the "orderly disorder" and "messy" activity fosters youth-led investigative learning.

Fielding observed children's patterns of movement during learning activities with two different teachers, one who used a flexible approach and the other a conventional approach. Student movement was vigorous in the flexible model, and peer evaluation of work is significant. Students do not leave their desks in the conventional classroom and peer evaluation is negligible between students. Fielding concludes that more research is required, but suggests that peer evaluation of work enriched the learning activity of students. Through engagement with each other, students embody the philosophy of teaching while they learn through collaborative evaluation.

Melvin Delgado's (2006) research in youth-led models for empowering young citizens is informed by social work and education. He thoughtfully deconstructs the challenges and barriers to a youth-led model of participation. Like Fielding, Delgado identifies barriers to youth participation in school settings due to an absence of "decision-making power" for young people in schools (2006, p.53). Delgado asserts that the dangers of a non-participatory environment negatively influences young people, as they transition to adulthood. He identifies schools as a "missed opportunity" of significant magnitude for youth participation and empowerment. Delgado asserts that effective student participation will require significant time due to the years of contrary conditioning.

Rae Bridgman has identified that participation by educators in participatory planning processes is a best practice for building child-friendly cities (2004). According to Bridgman, to create sustainable,

just, and child-friendly cities, young people must be empowered to determine the nature and program of the project. Considering the importance of school in the life of a child, Bridgman also suggests that opportunities for child participation in planning could be integrated more fully into local public school contexts (2004, p. 195).

Holistic education is an integral component of participatory projects in schools. In the context of the literature review, participation is cited as a core value of curriculum for citizenship, sustainability and democracy. The importance of hands-on experience has also been identified in Youth REP, which shares goals with experiential education, popular education and service learning. Hart, Driskell, Kretzmann and McKinght and many others (see also Wade, 1997; Claus and Ogden, 1999; Parker, Ninomiya and Cogan, 1999; Fielding, 2000; Pepinsky, 2000; Westheimer and Kahne, 2004; Boonock and Scott, 2005; Delgado, 2006; Pace-Marshall, 2006) all suggest that child and youth engagement must factor into sustainable community development.

Engaging young people in their school environment is an opportunity to implement the ESD initiative. Within an educational context, students may be taught concepts of citizenship, but have little or no opportunity to participate in democracy. McCoy and Vincent state:

One way to address this issue is to involve schools and students in localized revitalization efforts. Institutionalizing participation, however, requires building personal, political, institutional bridges across traditional agency boundaries (2007, p. 392).

They suggest that Hart's ladder is a useful tool considering that many "urban youth often feel their school environment and educational process have little relevance to their present lives or future trajectories (2007, p. 392). There is an opportunity for schools to provide students with an understanding of the web

of community resources. Chung (2002) suggests that schools can become tools for community economic development by incorporating a mix of community uses under one roof.

Evaluating the extent to which students are provided choice and voice in schools parallels participation philosophy in the larger public realm. Just as citizen participation emerged in planning and development (politically, economically, ecologically and socially), Jones and Perkins (2006) suggest that "increasing student voice in schools can also encourage schools to more closely align their mission, goals, and activities with a social justice focus" (p.2). They suggest that the term "student voice" emerged as a non-threatening alternative to "student power" used more frequently in the late 1960's and early 1970's (2006, p.2). This mirrors Sanoff's analysis of how Arnstein's assertion of "citizen power" devolved to be "more modestly defined to include information exchange, resolving conflicts, and supplementing design and planning" (Sanoff, 2000, p.8). Jones and Perkins advocate that increasing student voices in schools has tremendous benefits for youth. They suggest that students who have opportunities to authentically participate experience:

an increase in agency, confidence, attachment to social institutions, and to foster a range of competencies. Increasing student choices can lead to an increase in youth empowerment, which can provide sources of social capital for youth that can yield opportunities for further education, employment and other enrichment opportunities (Jones and Perkins, 2006, p.2).

Like Delgado, Jones and Perkins characterize schools as significant environments for student participation. The barriers to providing student choice and voice relate to the challenge of sharing power between educators and students in an environment where keeping control underlies the social management of these spaces.

Adult attitudes towards children and youth continue to be a significant barrier to participation (Matthews, 2002; Driskell, 2002; Delgado, 2006; Matthews, 2003; Shier, 2001, Freire, 1987, 1990, 1993). School environments can present multiple challenges for participatory projects. Lack of administrative or teacher support can negatively impact a project (Driskell, 2002; Cruz, 2004). Coupled with municipal planning processes that are not designed to engage (like public hearings and town hall meetings), young people are often still on the margins of participation. Matthews concludes that the bureaucracy of planning and political processes that are time-consuming and procedurally unfriendly to children presents a significant barrier to participation that often results in disillusionment of young participants (2002, p. 266). Although participatory workshop tools for use within schools (Driskell, 2002 p. 88).

2.9 Chapter summary

Schools are important public infrastructure. They shape development and influence society, the economy and the environment. As such, planners should be prepared to work with the multiple publics of a school community in planning processes. This includes developing the knowledge, skills and values to work effectively with children and youth. Child and youth engagement in planning is an emergent best practice in the field. Children and youth are identified as key stakeholders in sustainable development. This chapter has illustrated how interdisciplinary collaborations significantly support ESD implementation. Successful implementation also requires programs at the student, institutional and national level. In order to work together, planning practitioners must be trained to engage with children in hands-on projects. Power sharing is an integral part of youth-adult partnerships. Recognition for children's rights to participate in decision-making is a requirement for sustainable development planning.

In planning, citizen engagement is a fundamental tool. In education, it is much the same. This is our common language. Hands-on exploration is an effective strategy to teach children about sustainability. Creative schools, healthy communities and dynamic learning grow out of authentic cross-disciplinary collaborations. Children should have an opportunity to acquire an understanding of the project and their participation within the context of it. They should have the opportunity to discover, question and inquire in the process of activating their ideas. Finally, students should have the opportunity to apply their knowledge and view a tangible and meaningful result. Inquiry-based learning can assist children in making connections between their school and the larger environment. This is the goal of educating the whole person for active citizenship. Citizens who are engaged in community development are key stakeholders in all planning processes.

Assess & **Express**





Explore & **Discover**





Discovery with mapping



Discovery with collage



Discovery with research

Make it Happen

We determined that making change in a community is really hard.

It requires:

1. A good idea & plan 2. Lots of help and community interest

3. Time

4. Money

Students Formed Nine Project Groups

















Did you hear about a good idea today?

Are you interested in improving recycling or composting comfortable places to read or baring walls and halls a

Place a dat under the 2 ideas that interest you the most.

3.0

Research methods

Engaging children requires flexibility. The use of multiple research methods helped facilitate this process. In addition to the literature review (Chapter 2), five methods were used in the course of this research. In order to work with child participants, child assent as well as parental consent was obtained. This process is described in this research methods section. Consent is an important component of participation and enables the use of all other methods employed in this research. The process of obtaining consent is especially significant in community research with children. The limitations and biases of the methods are addressed in numerically corresponding sections in Chapter 5, where I also describe my research findings, analysis and interpretation.

I began and concluded my research with semi-structured interviews. These were conducted with educators and students of the grade six participant class. This was followed by photography, participatory workshops and participant observation. This multi-method approach evolved from a review of the literature and responded to strategies for engaging children. Each method informed the next in a process of inquiry. Had only one method been utilized, engagement would have been limited, as the children communicated in a variety of ways. Some students preferred communicating with visual media, while others were more comfortable talking or creating a physical project.

Establishing relationships cannot be over-emphasized as a key factor in engaging students from a school community. It is significant that the workshops were conducted over a nine-week time frame and were not a "one-off" session. Participatory methods are more time-intensive, particularly when engaging with children.

3.1 Ethical consent

Participation is a human right (UN Declaration of the Rights of the Child, 1989). Citizens (regardless of age, race, ability or gender) should be provided with the opportunity to determine for themselves, if they would like to participate in a planning process. Based on emerging best practices for engaging youth, I achieved both student assent and parental consent for project participation. The benefit of seeking student assent is to more fully ensure children's rights are respected and to demystify the research intent (Jason, Pokorny & Katz, 2001). The risk of seeking assent is that students may not wish to participate.

Children should be provided the opportunity to change their mind about participation at any time. Assent requires that students understand what they are being asked to participate in and how their participation will be used. In a school environment, there are logistical factors to achieving both assent and consent. Consent forms need to be reviewed by the school board and school administration. Students may lose or misplace consent forms that are sent home. The wording of consent forms must conform to academic standards for University ethics, which can result in a lengthy form. Parents may not be available to come for an information meeting. Parental literacy may be a factor. Achieving both child assent and parental consent requires time and should be factored into the schedule for research. These challenges are further addressed in Chapter 5.1 of the research findings.

3.2 Semi-structured interviews

Semi-structured interviews shaped my approach to working within the school community.

Communicating directly with participants helps a researcher understand unique needs and opportunities.

Semi-structured interviews provide an opportunity to develop a relationship with and understanding of a

group of people. Interviews enable voices to be heard at an intimate level. I conducted interviews prior to beginning the workshops and following the student presentations to the school community. Interviews with children ranged in length from five to twenty minutes. Adult interviews ranged in length from fifteen to forty-five minutes. All interviews were conducted on the premises of the school in a guiet location. This method helped me to gauge potential barriers and assess opportunities for the workshops based on suggestions and perceptions of people in the school community – in their own words.

Zeisel (1987) suggests that this qualitative approach enables people to determine their own priorities in a situation that the researcher has defined. I provided participants with questions in advance and encouraged them to prepare and ask questions of me when we sat down together. I employed a similar interview strategy for both adults and children, although the questions were modified based on the role of the participant. When I evaluated techniques developed for interviewing children, I concluded that a simple, sensitive, and friendly approach would best serve the ethic of participation. I also developed my interview strategy on the assumption that children could describe observations and experiences with competence.

Mahon and others (1996) suggest that "it is neither theoretically nor methodologically appropriate to rely on proxies to represent the views and experiences of children" (pg. 146). Based on my experiences of working with children as a storyteller and puppeteer I understood that my interview method had to be flexible and responsive. Alderson and Goodey (1996) describe the skills and values required for interviewing children. They explain how debilitating nervousness resulted when they did not view children "on an equal footing." They sensibly suggest listening and allowing for a flexible agenda. They also identify 87 potential barriers (particularly when interviewing students with special needs): the use of words children are not familiar with; assumptions about development or competency; the use of questions that may appear to have "correct" answers; and searching for consistent meaning within the interviews instead of valuing "actual feelings, behaviours and experiences" (1996, pp. 111-112). These are often compounded by more formal barriers involved in obtaining consent (as discussed in Chapter 5).

3.3 Photography

Digital photography was used with students as a data-gathering method to help facilitate discussions about the school community. Photo-documentation of the workshops was also conducted collaboratively with students. Photography was selected as a method because it provides an opportunity for all students to participate equally. Six-months prior to commencing workshops I petitioned ten people for donations of digital cameras they were not using as a result of recent technology upgrades. I was able to provide five digital cameras and had access to four more at the participant school. With nine cameras in total, students worked in groups of two and three.

If students with visual impairment are participating however, this method would not be equally accessible and an alternate method should be substituted. Using digital photographs, students can visually identify opportunities to improve sustainability in their school community and verbally discuss why they took a picture. Photography is an engaging research method when working with young people (Cooke and Hess, 2007). In *I Wanna Take Me a Picture*, Ewald and Lightfoot (2001) suggest that "photography is perhaps the more democratic visual art of our time" (pg. 14). Ewald champions *Literacy Through Photography* as a strategy to build confidence and documentation skills with students who have special needs. The

authors suggest that "for most children, especially those who seem to be without a secure place in their classrooms, learning through photography can be helpful in building self-esteem and confidence" (2001, pg. 135). As discussed in Chapter 4, the grade six participants had a range of learning levels and needs. Photography was selected as a method to provide students with an engaging communication tool.

3.4 Participatory planning workshops

The goal of participatory planning workshops is to help students explore their own school environment. The approach is hands-on and enhances student choice and voice throughout the process of exploring the ESD initiative. Using the results of the photography workshops, students determine projects unique to their school environment that they themselves would like to pursue. Students may continue to photograph their school community for their projects or adopt other research methods. These may include mapping, drawing, writing, interviewing and internet research among other strategies.

Preparing adults to participate with children is an important step. Asking adult participants how they can support children in a participatory process is an important place to begin based on Shier's Pathway model. For more information about some useful approaches for adults to engage children in participatory projects, see Chapter 2.

The workshop design should be inquiry-based and incorporate opportunities for group work/shared decision-making, public speaking, writing and use of technology when possible. The workshop tool is helpful for planners seeking to engage young people in planning processes as participants communicate a

wealth of personal knowledge about the site. It is also useful for teachers interested in engaging students in hands-on learning for the ESD initiative. Through participation, students can discover opportunities to improve their school environment.

In *The Environment for Children*, Satterthwaite et al. (1996) assert the importance of enabling young people to realize their own power to create change. They elaborate by saying:

We need to convince children that they can and should be involved themselves in the identification of problems. One of the most effective way of achieving this is to have children begin with a critical analysis of their own daily activities in the environment of their community. In doing this, one can build gradually from a research base that children know better than anyone else (p. 249).

Identifying opportunities and issues occurs when children photograph their school environment. The successive research and project design follows in the participatory workshops where children begin to assess their role in creating change for sustainability. The child-centered research enables students to engage with issues of sustainability at the level of their own daily activities. Allowing students to create self-determined projects is integral. Student-centered discoveries help young people to understand their role as citizens with the power to effect changes in their community.

Thomas and O'Kane (1998) suggest that the process of enabling young people to participate in shaping the agenda is an important aspect of the research process. Student autonomy to select both the project theme and the medium of presentation is an important component of the participatory workshops. The facilitator should provide some parameters but allow for flexibility. Additional support, (e.g., in the form of volunteers with experience or training in participatory planning), is an asset for working with large

groups of children. There is no way to pre-determine what students will identify and wish to investigate in the participatory planning workshops. This departs from bringing a project to children and inviting them to take part in something they have had no power to frame in their own terms. Participatory workshops are adult-initiated, but engage students to determine the course of their own learning experience about sustainability.

3.5 Participant observation

Participant observations enrich understanding. When an observer begins to narrate what she sees, this becomes her version, her way of seeing. Observing is a socially, culturally and politically charged act. Participant observations are infused with the paradigm of the observer. For example, I am invested in a participatory planning ethic that is child-centered. As a result, I invited students and educators to participate as observers in the context of the research. These observations were shared with me in conversations and interviews.

Acclimating myself to the school's "culture" included both formal and informal participation in the environment. I visited the school as an observer and volunteer on multiple occasions in the three months prior to beginning the workshops with grade six students. I attended a large assembly, provided literacy support for a grade three EAL student and brought my puppet to sing and tell stories with grade one and two students. My intention as an observer was to see and also *to be seen* by members of the school community. Collier and Collier (1986) describe the process of establishing a connection within the participant community as an orientation phase of research. It is required to "give the researcher sufficient grasp of a new culture so he [sic] can observe, identify, and relate" (pq. 19).

The role of the participant observer is to both observe and engage. This is supported by Spradley (1980, p. 154) who suggests "the participant observer comes to a social situation with two purposes: (1) to engage in activities appropriate to the situation and (2) to observe the activities, people, and physical aspects of the situation." As a participant observer, the researcher takes behavioural cues from the community in order to fit in. By doing so she increases her own awareness of the group she is participating with. This is particularly important when working with children. The orientation phase is an important step in developing rapport within the community. Orientation is a necessary step in the process of learning the verbal, visual and behavioural languages of a community group. It was very important that I communicated my role was not to "study" participants, but to work collaboratively with them and document the process.

The documentation mechanisms I employed in this research included audio and video recordings, photographs, student writing as well as a personal observation journal. Students also participated actively in this documentation process. They received training for use of digital cameras, video equipment and computer programs such as Microsoft Publisher and Microsoft PowerPoint. The ethics of observation are infused with power relationships between observer and observed (Spradley, 1980; Collier & Collier, 1986; Pink, 2001). Therefore, it is important that children are empowered to make observations that contribute to participatory research.

My research was designed to be incorporated directly into a classroom environment. As a result, the teacher required some way to evaluate students and account for their participation. The teacher and I agreed that students would engage in a collaborative assessment process to determine their grade for

the projects. Students would report to the class at least once during the process of the workshops and then communicate their findings to their school community. The teacher emphasized that students would evaluate themselves and their peers on their participation. The teacher would assess students on these peer evaluations in conjunction with a triangulated approach including observations, conversations and portfolios of each student.

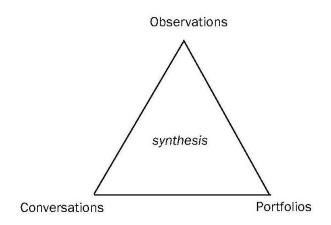


Fig 8. "Triangulation" adapted by Marcella Poirier from Davies et al., 1992.

Collaborative assessment places emphasis on a satisfying process, not just the product. Triangulation links participant observations with data gathered from other research methods such as photography and semi-structured interviews. The teacher's approach to student assessment matched my own proposed research approach for the workshops. I created a collaborative assessment framework for students. Assessments were completed the day of the School Environment Fair.

Our School Environment Cooperative Assessment Describe YOUR participation in your group project: What did your GROUP do best? What could your GROUP have improved? What can you do to make change NOW? List each person in your group (include yourself) and evaluate their participation: Group Member Contributes ideas Respects ideas of other Participates to help Overall participation achieve a goal

- 5 Great participation
- 4 Good participation
- 3 Participation most of the time
- 2 Participation some of the time
- 1 A little participation

Fig.9 Collaborative Assesment Framework by Marcella Poirier

3.6 Chapter summary

The use of multiple methods can enrich the process of working with children. Each method informed the next in the research design. The literature review established the need for children's authentic participation in sustainable community planning and highlighted seven models to prepare adults and engage children. Chapter 3 began with an exploration of the necessity for ethical child assent as well as parental consent in order to facilitate participation. Semi-structured interviews followed ethical consent and were used to determine potential barriers to and opportunities for the workshops. Information gathered in semi-structured interviews can often help to individualize a workshop program for each unique school community. Based on the interviews, I determined that photography was the most democratic participation tool for the group I would be working with. In the literature review, photography was emphasized as a useful research method to boost student confidence and engage children with special needs at a hands-on level. When working with children, hands-on projects are an important component for implementing the ESD initiative. Based on recommendations for hands-on projects and semi-structured interviews, I anticipated that the participatory planning workshops should respond to student-determined opportunities (see Chapter 2).

Workshop design should be flexible and student-centred. The project should also be self-generated by students based on their own observations and experience. Participant observation is required to document the participatory workshop process. When working in a school environment, educators may be familiar with triangulation, which includes observations of students, conversations with students and student portfolios. I also developed tools for self and peer assessment for the students (Fig.9, 12, 13 and 14). These components helped implement the ESD initiative using participatory workshops.



4.0

Selection of the school partner

Schools are significant institutions that impact neighbourhoods. Chapter 2 explores how schools shape community design and neighbourhood development as well as educate young citizens (Kerchner, 1997; Chung, 2002; Vincent, 2006; McKoy & Vincent, 2007). In *Architecture for Achievement: Our Kids Deserve Better*, Victoria Bersagel and Wendy Sauer (2007) suggest that large schools built to educate children for a manufacturing economy no longer serve the needs of contemporary students. They assert that school design has transformative power in education for sustainable development. "Generative learning landscapes" describe sustainable school environments that seek to create schools where children explore and discover connections between the many components of their educational experience (Pace-Marshall, 2006). Schools are challenged to become more sustainable in terms of resource consumption, as well as help students develop an ethic of sustainability through the ESD initiative.

Based on the literature review, schools require support to implement the ESD initiative at student, institutional and national levels (Rode and Michelsen, 2008). In the process of selecting a school partner, I searched for elementary institutions showing signs of adopting sustainable practices at a range of levels. I decided to engage with an elementary school class as I had previous experience working with children from kindergarten to grade six. In addition, the elementary school day is more flexible for scheduling workshops as all core subject areas are generally taught by one teacher. Students leave the class for gym, music, and recess but are otherwise under the direction of one teacher, who can adapt his or her day to accommodate a two-period workshop. The selection of the school partner was based on three criteria. I looked for schools that had engaged in projects at the student, institutional and national policy levels.

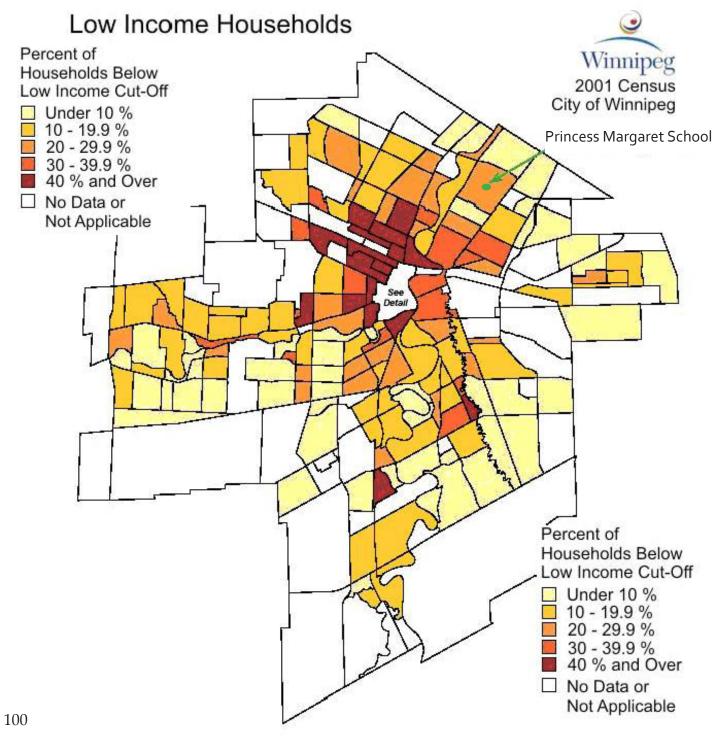
When I was searching for a participant school to work with, I discovered that Princess Margaret School



had achieved recognition for over 250 "Green school" projects as a participant in the SEEDS Foundation "Green Schools Program." The mission statement of SEEDS is "[t]o support Canadian educators in promoting student literacy and active personal and societal responsibility for energy, sustainability and the environment" (www.seedsfoundation.ca). The award to Princess Margaret from SEEDS Canada evidenced a history of activity and interest at both student and institutional levels for school projects to help the environment. In addition, the River East School Division (where Princess Margaret is located) participated in a 1998-1999 federal pilot project with Natural Resources Canada (NRCan) to reduce energy consumption by approximately 19%. Princess Margaret was just one of the participant schools in the divisional project with NRCan (Office of Energy Efficiency of Natural Resources Canada, 2000). This illustrated commitment to sustainability at the national policy level.

Princess Margaret had also established a "School Greening Committee" focussed on creating an outdoor classroom and greening project. This was a parent-driven endeavour to enhance school grounds. In 2007 the school received a \$5000.00 Sustainable Development Innovations Fund grant for their outdoor classroom school greening project, which transformed the school grounds by adding many trees and boulders. This illustrated further involvement at the institutional and policy levels.

The design of the school greening project was an example of adult-centered leadership (Jones and Perkins, 2005) where a program was presented to students and led by adults. The result was an idea that progressed quickly to an implementation phase, but included very limited participation by children. The effects of school greening that I observed reflected Matthews' type 2 of community action where adults work for the benefit of young people as part of a reconstruction phase. Young people were consulted, but



actions were taken by adults on their behalf. The School Greening Program had significant support from the parent committee and the administrative team.

In addition to the history of projects for sustainability, I chose this school because I had volunteered at Princess Margaret as a storyteller and puppeteer from 2001 – 2004 and had maintained contact with the grade one teacher. I was able to begin a dialogue with her about my project ideas to integrate the ESD using participatory planning. She facilitated an introduction for me to the school principal and became the liaison teacher for this project. This relationship was seminal in developing an opportunity to work within the school.

4.1 The school's neighbourhood context

Princess Margaret School was originally built as a small four-room facility in 1955. At that time, it accommodated grades 1-6 with a teaching staff of 7. By 1995, the school had expanded to 28 classrooms and incorporated a new gym, multipurpose room, computer lab, a renovated library and resource rooms. Enrolment in 2007-2008 was just over 400 students (www.pm.retsd.mb.ca). The official school policy discourages students from riding their bicycles to school stating the following reasons: "the danger associated with riding a bike in high traffic areas around the school; we have no visible, secure space available for bike racks; the school cannot be responsible for any damage or loss" (www.pm.retsd.mb.ca). Skateboards, roller blades and scooters are also not permitted. The school enforces "No Stopping Zones" for cars around drop-off points to ensure child safety.

Fig.7 adapted from City of Winnipeg Planning Property and Development, 2001

Princess Margaret School is located on a residential street in the east end of the city of Winnipeg.



Bungalows, side-by-sides and apartment buildings characterize some of the residential housing visible from the school grounds. Two strip malls are located adjacent to the school; one on the east side and one on the north. The Springfield Shopping Centre, located at the east end of the school yard, is in a visible state of decline. Long term vacancy of several storefronts has attracted graffiti tagging on empty storefronts and signage.

The School is located in the River East-West cluster in the Rossmere-A neighbourhood designation (Census, 2001). Median household income in the Rossmere-A is \$34, 183. This is \$9200.00 below the Winnipeg median of \$43, 383. The population of children under the age of 14 (children in K-6 grade levels) in Rossmere-A is just slightly higher than in the City of Winnipeg by .1%. Rossmere-A is identified as having 20-29% of households in a low-income bracket according to the City of Winnipeg (see fig. 7).

	Median Household Income	Percentage of Population under the age of 14
Winnipeg	\$43, 383	19.1%
River East-West Community Profile Area	\$41, 333	23.5%
Rossmere-A Neighbourhood Cluster	\$34, 183	19.2%

(table 1. 2001 Census)

The school offers both German and English language options. According to participant interviews with teachers and administration, the German program draws a large commuter student population. However, the Rossmere-A neighbourhood reported that 51.4% of the people in the area spoke German as a second language in 2001 (Winnipeg Census, 2001, pg. 4). My research was conducted with an English class of



grade six students. More comprehensive research could include students from both English and German streams, as well as a range of grade levels.

Although the grade one teacher was my initial contact for the workshops, I elected to work with a class of grade six students. Several factors influenced this decision. Most significant was the fact that I had worked with many of the grade six students when they were in grade one. I met 12 of the 26 participants in 2003 when I was a volunteer at the school. Over the course of one year I visited with my bird puppet Claudia. Using a variety of methods, I engaged students as teaching partners to help my puppet to learn how to read. The grade one teacher (who became my liaison for this project) and I developed songs, stories and curriculum tools for literacy. My liaison introduced me to the grade six teacher for this project. The grade six teacher was open to allowing the workshops to take place, as part of her curriculum to implement the ESD initiative. She emphasized that it would be integral that children had opportunities to make errors in their discovery process and share their learning collaboratively. I felt that our pedagogical approaches were sufficiently well matched to explore implementing the ESD initiative in a planner/teacher partnership.

This previous relationship I established as a school volunteer was a definite advantage when I returned to ask students to participate in this project. Although more than half of the students did not know me, I had established a reputation with enough of the participants to be accepted fairly quickly by the group. As they had known me as a storyteller and puppeteer, this helped establish a good rapport for participation. I identified this previous relationship as a possible limitation to replicability in Chapter 1. As identified in the literature review by Mullahey and others, relationships are an important component of engaging child

"Marcella & Claudia" by a participant student from her grade one portfolio and youth participants in planning. To effectively plan with young people, previous volunteer or work experience in engaging children is an asset.

Finally, I selected this class of grade six students as they were an incredibly diverse group. I had enjoyed engaging with them when they were in grade one and looked forward to working with them again. This group was not homogenous. They were divided almost equally between boys and girls and were comprised of many different cultural backgrounds. Some students were English as Additional Language Learners (EAL), though all could verbally communicate in English. The participant teacher suggested her students worked between grade one and grade six literacy levels, some reading above their grade. For others, reading and writing were a struggle. The participant teacher described the group as a quiet bunch, who needed a lot of encouragement to contribute to discussion in comparison to other groups she had taught. The liaison teacher suggested that the diverse needs and abilities of children in the grade six class would be helpful in evaluating a range of methods for the participatory workshops. Children were provided with choice to participate in the proposed project. Parental consent as well as student assent were obtained for this research. The process of obtaining consent is introduced in Chapter 3 and described in more detail in Chapter 5.

4.2 A description of the participant class

The classroom was one of the largest in the school. The room had two windows that provided views to a parking lot. There were two bookshelves at the back, a small bookshelf to the right of the door and more books under the white board/chalk board at the front of the room. A row of narrow tables lined the back of the class. This area was used to store projects-in-progress. The bulletin boards had photographs of

student elections and some scheduling information. Built-in shelving, cupboards and a counter lined the window wall of the room and it was filled with more books, binders and teaching materials. A small round table was located off to the side of the student desks. There was a tall filing cabinet in the corner and the teacher's desk was tucked directly in front of it. Institutional lighting hummed with a florescent glow. I began the workshops at the end of January – in the City of Winnipeg. A very cold and snowy time of year. The coat rack was bursting with jackets, backpacks and other items. Boots were scattered in the hallway, as there was not enough room for them all on the shelves.

Although the room was large in comparison to others, with 26 students, 3 para-educators and a teacher the room was cramped. Due to the limited space, the participant teacher suggested that most of the workshops could be carried out in the library. Five of the twenty-six children were students with special needs. One student could not sit in close proximity to others, due to behavioural challenges, and required a buffer of space around his personal area. The para-educators assisted with both learning and behavioural support. When we were all together, there were thirty-two people in the room.

4.3 Chapter summary

This class of grade six students cannot represent all children as a broad category. Their unique perspectives shaped one possible outcome of using participatory planning to implement the ESD initiative and engage children in community sustainability. This group of young people brought individual experiences and knowledge to the process. The school had expanded over a thirty-year period to meet the demands of a growing community. The structural adaptations illustrate an example of how a school can affect neighbourhood development and operate as public infrastructure. With expansion there is also

increased need for traffic mitigation, waste/recycling removal and parking. These are just a few of the institutional challenges of a growing school that are part of an ongoing attempt to be sustainable (socially, economically and environmentally) within a community. As community infrastructure, schools shape neighbourhoods and development as much as they shape and influence students. In the participatory planning process students identified ways they could help their school be more sustainable based on their knowledge and experience.



5.0

Research findings

The research findings are organized according to the four methods of exploration used for this research: semi-structured interviews, photography, participatory workshops and participant observations. Each section presents discoveries that are organized by participant group: students, para-educators, teachers and the administrative team. Strengths and opportunities of the process are revealed in each section. Ultimately, this chapter explores how participatory planning workshops can be used as a tool for assessing and enhancing school sustainability with students. I examine what potential barriers emerge for children's participation in a school environment. Most importantly, I explore what students discover about sustainability through this engagement process.

5.1 Limitations of the consent process

The consent forms (Appendix A & B) became a challenge to participation. Consent forms were too long and offered too many choices. Based on a review of literature, I determined that obtaining both student assent and parental consent was the most democratic way to request student participation (Morrow and Richards, 1996; Thomas and O'Kane, 1998; Alderson and Goodey, 1996; Mahon et.al., 1996; Jason, Pokorny and Katz, 2001). I created two distinct consent forms that described the research: one designed for adults and one for children. I wrote a letter introducing myself to both students and the student parent/guardian. I used a PowerPoint presentation to help explain the intent of my research to the children (Appendix C). When the participant teacher looked at the forms she anticipated a problem. They were too lengthy and too complex. The teacher and I determined that in future collaborations, the form would need to be redesigned. Changing the consent form at that stage would have required resubmission to ethics – a delay the teacher and I both felt would not be beneficial as the children were now excited to begin participation. Although I had provided contact information, answering individual questions

from parents fell to my teaching partner. This emphasized the importance of effective collaboration with educators when inviting student participation in planning. The teacher suggested that the consent forms were one component of the participatory workshops that she would like changed in future collaborations.

I read the student assent forms out loud to the children. The teacher then went over the details and instructions for the form in clear language. We allowed time for questions. The teacher and I both suggested to students that they take time to consider the project and their wish to participate in it.

Immediately following the explanations, hands shot up as students were perplexed about what to sign, what to check and what their choices were. I made an assumption about student literacy levels that was not accurate. Some students had high proficiency while others were reading at or below a grade one level. In future workshops, I would simplify the wording and length of both assent and consent forms. The teacher assisted parents with the forms as required. In the future, I would not make assumptions about adult literacy. After a confusing start, all students and their parent/guardian confirmed that all 26 children in the class would participate in the process. When working with children in schools, planners may want to consider the following tips for ensuring ethical consent:

- 1. Do not make assumptions about adult literacy. Forms should be simple and use images if possible.
- 2. Host an open house to provide information about the project at the school. Use images and examples to explain the project.
- 3. Collaborate with the teacher and/or administrators to create the consent forms.
- 4. Seek student assent in very simple terms. Keep the form between two and four sentences or use a sign-up sheet instead of a consent form.

Speaking directly with participants and their parent or guardian would have been the best approach although this may not always be possible. Education partners must have a clear understanding of the goals of the project to enable this partnership to work. Using examples and visual information in the PowerPoint was a good choice. Using a story to frame the project was also important. Student assent in a school environment may best be achieved through a sign-up sheet or sign-up poster with images following a verbal presentation. Students are accustomed to choosing to participate in a variety of school activities through the use of a sign-up sheet. Ultimately, children will make a choice to participate or not based on the description of the project and the person presenting the information. Over thinking this stage does not benefit child participants.

5.2 Semi-structured interviews

Semi-structured interviews were conducted at two stages of the research. The first interviews were carried out prior to beginning the first participatory workshop with the grade six students. The second set of interviews was conducted one week following the last workshop to gather impressions of the experience. In the first interviews I spoke with six adults and ten students. In the second interviews I spoke with three adults and twenty-one students. This reveals that the more time spent establishing relationships with students, the more interested children were to participate in interviews. Higher levels of student participation can also be connected to the fact that the children had generated their own knowledge about school sustainability through the workshops and felt they had more to talk about. More than double the number of children elected to participate in post-workshop interviews. This increase in elective participation suggests that "one-off" planning workshops with children may not be as successful at reaching children as projects conducted within a longer period of time over several visits. School-based

children's participation in planning requires time for relationship development in order to reach more participants.

5.2.1 Pre-workshop interviews

Students

Only four of the ten students who volunteered for the pre-workshops interviews had previous experience working with me in their grade one class five years prior. All four of those participants were female. The other six participants were equally balanced between male and female students – three girls and three boys. These ten students had been members of the Princess Margaret school community between two months and six years. Children who had been students elsewhere noted minimal differences between other schools they had attended and Princess Margaret. Six of the ten students interviewed had attended other schools. They suggested all schools look "pretty much the same." Other differences students noted was the need to change footwear which required remembering multiple pairs of shoes and storing them properly. One student who had recently moved to Canada noted that all of the social studies and geography were different from his previous learning experiences. When I asked the children if they could tell me something that made the school special, all of the participants had a hard time answering the question. After some thought, features like the Principal and Vice Principal, book club, "I love to read" month, the trees that were planted over the summer were all noted. One child felt that the fact that she knew many people at the school made it special.

When I asked students to describe their role as a grade six student in their school community, they uniformly responded that it was to "be a role model", "set an example for smaller kids" and "help

them [younger children] when they need help." When asked what being a role model meant, students suggested that it was their role to "be polite," "walk down the hall properly," "be respectful," "follow the rules," "obey elders and teachers" and "act like a grade 6 should." As the children responded with such uniformity about their role, this component of their identity had been clearly been shaped by adult instruction. Although the students communicated a collective duty as leaders in the school – this leadership was expressed by adherence to school rules and adult authority.

This point was significant within the context of the project. I was asking students to critically evaluate their school and identify ways to make it a more sustainable environment (socially and environmentally). I was also asking students to take a lead in identifying what could be made better in their school community. One student interpreted the project as a potentially transgressive act and made it clear that she liked her school and did not wish to change it in any way. She wanted to participate, but wanted to be clear that she liked her school.

Although there was once momentum for the "Green Schools Program," it no longer seemed to exist at the school. Students also had limited knowledge of the "School Greening" initiative underway at the school. The ten students that I interviewed did not feel that there was a focus on the environment at their school. One student suggested that "we don't talk about the environment a whole lot. We barely talk about it at all." Only one student mentioned the School Greening project. She described it as "a circle of stumps outside - the outside classroom...you can walk on the stumps. We also have one made of rocks. You walk on them." I asked this student how she participated in this school project. She replied that she had not participated and that she did not really know what it was about. She concluded that this was likely 115 because "it was during the summer when no kids were here." The children did not recall participating in a survey about their ideas for the outdoor classroom. Although "School Greening" was an initiative for the whole school community, students I interviewed did not communicate a sense of engagement.

All students interviewed responded that they felt that they had the power to make change in their school environment. The difference between feeling empowered and having the tools to make change were succinctly expressed by one girl who stated that "I know we have a *right* to change things to make it better for everyone. It's just hard to know what we really can *do.*" Seven of the ten children talked about the importance of making change to help the global environment. Students described the importance of solar power, the threat of global warming and its effect on Arctic animals as well as the problem of pollution. Although all of these students wanted to make a positive change, they were uncertain of how to do so.

When I asked students to consider what they could do within their school environment, they suggested the following:

- students could send letters to the government and ask questions about what they can do
- the government should make companies stop sending all the smoke up into the air, stop putting things into the ocean that are not healthy for fish
- schools should collect money for the environment, plant trees and help people
- the school should plan an Earth Day celebration
- the school should recycle more
- the school should use less paper.

The responses were heavily focused on decisions at the government (macro) level and the institutional (meso) level and not the student (micro) level. This revealed that although these children communicated that they were leaders with the power to make change – they were very unclear about how to use their

own potential without adult leadership and approval. These children understood sustainability in top-down terms where governments (adults) make decisions that affect the world. The children understood the idea of participating in their community and their school as part of their right to democracy, but lacked opportunities to apply this knowledge. Based on the review of literature in Chapter 2, schools that were able to achieve a balance between meso, micro and marco levels of ESD implementation had the most successes with achieving the goals of the policy (Rode and Michelsen, 2005). The literature review also highlights the fact that many children lack opportunities to participate in authentic planning and decision-making processes. The feelings about participatory democracy expressed by these children were therefore not unexpected.

When I asked students how they could be supported by adults during the process of trying to make change, one girl responded by saying, "adults are the boss of kids, so if they approved stuff... then kids could do it." One boy suggested that "adults need to provide kids what they need – that means providing the materials kids need." To him, this included the ability to make posters, videos and have more recycling bins. Another boy thought very strategically and suggested that students "need to find an adult that wants to do the same thing as them. You talk to the principal and the teachers." He concluded that "adults can't give you the answer, but they can tell you that you are right." Three children communicated that adults may say "no" to a student project if it cost money. One child suggested an adult might say no to a project if it was not safe. Six children were not sure why an adult might say no to a student project.

The children I interviewed told me they had agreed to participate because the project "sounded fun" and described an opportunity to use a range of materials like cameras, art supplies and computers. All three of the boys suggested that the ability to access technology was appealing to them. Seven of the ten children 117

interviewed specifically mentioned looking forward to using cameras. The children expressed a desire to make choices about project topics and medium. It was important for one girl to have the freedom to photograph whatever she wanted to and not be told what to take pictures of. When I asked students their ideas for planning a more sustainable school in pre-workshop interviews they suggested:

- kids could bring in games and have a game room for indoor recess
- find a disaster area and clean it up
- make the hallways more interesting; they could be a place to promote change
- make a movie
- promote Earth Day
- make posters
- recycle more
- have a bake sale to raise money to buy trees.

When I asked students what they would like to see happen as a result of the workshops, one girl stated that she would like to see "a huge difference in the way the school runs, like recycling and stuff." Another student simply suggested she wished the school was "a more comfortable place to be." When students were asked if it is easier to change behaviour or change a physical thing (like a building), three children were not sure and seven children felt that it was easier to change people's behaviour. These preliminary interviews revealed that students understood components of advocacy style campaigning through the use of posters, video and fundraising.

I began working with students, following their unit on citizenship from the social studies curriculum.

The students had just conducted their class elections. This timing was unintended but helpful in framing the workshops in a context of participatory democracy. Preliminary interviews confirmed that while

students were taught concepts of citizenship, they felt excluded from democratic processes. The children I worked with had an understanding of their rights as citizens to participate and make change in their own environment, but had little understanding of how this right could translate into action.

Following the initial interviews with students, it was very clear they were excited about the materials they would have access to like cameras, video equipment and craft supplies. They were not certain about how those materials would help them to discover opportunities to make their school more sustainable. Although they communicated that they were leaders and role models, they were unsure of how they could make a changes to improve their school environment. In the lives of these students, the ability to make change in the world hinged upon adult permission and control.

Para-Educators

Para-educators assist with academic work, but also participate in helping students through a range of other activities (e.g., obtaining food, medicine and mood management). I interviewed two of the three para-educators who supported the participant class. They described their work with students in a holistic way. Para-educators require an understanding of a child's life outside of school that may contribute to the difficulties he or she is experiencing on any given day within the classroom. Both women described "managing behaviours" as a significant component of their day.

The para-educators were interested in how students with special needs would be invited to participate in the workshops. When I asked one para-educator how I could support students with special needs during the workshops, she responded that "bringing in new ideas for them to work with does support special

needs students." The para-educators emphasized the need for flexibility; particularly understanding that "a plan may not always happen." Based on these interviews, I understood that writing and reading components I had planned may pose barriers for some students with special needs. Several of the students with special needs would require the para-educator to act as a scribe for writing exercises. Choice and activity-focussed learning were emphasized as elements that could be used when working with students with special needs.

Students with special needs were often "pulled out" of class to an alternate location in the school or separated from other students within the classroom in order to receive individual support. The paraeducators used a small round table within the classroom as a space to work with students. The small table was important and was described as "the physical space they [students with special needs] need" in order to get through the day. Other areas of the school that were used with students with special needs were the math lab, resource room, the computer lab and the library.

When asked about any projects for school sustainability that the school had undertaken, one paraeducator described the School Greening Project. She went on to say "we [para-educators and students with special needs] had no hands-on, nothing to do with that. We had an assembly and we showed up." When asked how the special needs students related to the project she stated that "they didn't. We haven't even used the outside classrooms. It's just something else to play on outside – if they go outside to play." One of the students the para-educators worked with did not go outside for any recess time at all. The para-educators characterized the process of school greening as a nice improvement, but one that did not have specific meaning for the students they worked with. When asked about one component that could

be improved about Princess Margaret, the para-educators described a social separation between children in the German bilingual program and children in the English program. One para-educator observed that the children from the separate streams generally do not socialize or interact. She noted the after-school program for Aboriginal students was good – but it also emphasized the separate social spheres within the school she had observed. Both para-educators wished for more interaction between children from the German and English programs.

The Participant Teachers and Liaison Teacher

The participant teacher and liaison teacher were interviewed together before the project began. The liaison introduced me and my previous work. This helped establish a connection with the participant teacher. The role of the liaison teacher is explored in more detail in Chapter 4.

Each teacher had unique knowledge and experiences. However, both noted the separation between children in the German and English programs. Although they felt that the teaching staff would like to encourage more interaction between children in the two programs, they emphasized that the social divide was difficult to break down. The teachers suggested children who come from different areas, generally do not socialize in or out of school. These teachers expressed a desire for more connectivity between the English and German students. The participant teacher noted that it was more difficult to get parent volunteers in the English program. The liaison teacher suggested that the English students, in general, had a different profile than children in the German program. They suggested that, in general, more students in the English program were children of single parent families, more likely to contend with issues of poor nutrition and poor sleeping habits or be faced with the challenge of English as an additional

language. The liaison teacher concluded that children in the two programs (English/German) "do not mix."

Some years they really despise each other. This year is not bad. But some years you really hear about it."

German/English student group distinctions were not made by the administrative staff or the students themselves. I considered the division identified by the para-educators and teachers important in the context of how the school functioned within the neighbourhood. However, I chose not to pursue the topic further as it was socially complex and beyond the scope of my research. Further investigation would be required to determine how many students (on average per year) in the German language stream were commuter students and how many were neighbourhood residents. The social divide between commuter students and neighbourhood-based students is an element planners should be aware of when working with school communities. This element may also be a factor in shared community facilities identified in Chapter 2 (Kerchner, 1997; Chung, 2002; Vincent, 2006; McKoy and Vincent, 2007). When multiple communities share a neighbourhood facility, possible tensions may arise. Although shared facilities may be more economically and environmentally sustainable, understanding existing dynamics is necessary for development of socially sustainable places.

When asked how students can take a lead in creating environmental change in the school, the participant teacher brought up the issue of "role models" widely discussed by the students themselves. She stated that "I always tell my kids you're the role models, you're the leaders but then we have nothing for them to do to show that." The liaison teacher added that "when it comes down to student involvement we don't give them opportunities to make a change... you have to practice that. Just because you happen to be the oldest person in the building doesn't mean that you are a role model." Both teachers reflected on some of

the challenges faced by their students. They suggested that few are enrolled in sports or extra-curricular programs. The liaison teacher described it this way:

As a child develops they start to get new things written on their slate and they start to develop and they get these new opportunities they get exposed to all these different experiences and those will shape who they are – well these kids [in the English program] have experiences, but not always what we think of typical of children having. So we have to create those for them.

When asked how adults can support students in the process of discovering their own power to make change, both teachers described the importance of tangible results. They emphasized the need for students to create a small but concrete product at the end of the workshop sessions.

Like the administrative team, the teachers identified that avoiding student disappointment was very important. The participant teacher suggested "I think the older they get, the more realistic they get, especially coming from the English stream, they know things cost money. The older kids are realistic – when asked what they want, they think, ok, these are the things we could ask for that we could get." The liaison teacher suggested that the workshops should not function:

...like a tease – you can't say 'We're making cookies, what kind of cookies would you like to make?" We'd like to make chocolate cookies. Well let's get some recipes, and let's invent some recipes and then you NEVER BAKE THE COOKIES....the opportunity to see the fruits of their labour in some way is important. In the end, they expected a cookie and they want that cookie.

We discussed the challenges of community consultation in creating unrealistic expectations. Based on the teacher and administrative interviews, it was clear that in the context of planning with children for a more sustainable school, projects must be student-generated, inquiry-driven and result in a small but tangible product at the end of the process. This confirmed my findings of the literature review process.

The teachers felt that children could understand that not all projects may actually happen, but some projects must have a feasible chance to succeed. Having adults who were willing to listen was identified as an important part of this learning process for children. The liaison teacher described it this way:

Wouldn't if be a neat experience if they dreamed and imagined and somebody listened to them, and they did it. That would be amazing. If you're twelve and somebody listened to you, if an adult listened to you and then you saw it happen, it could be a powerful experience for kids. All you need is one experience like that. Then you're hooked. Then you have a voice and you know that sometimes when you speak out someone might listen to you and then you effect change in a small way.

When I asked the teachers what projects for sustainability they were aware of at Princess Margaret School, they began by discussing the School Greening Project. They mentioned children were asked what they wanted at an early stage in the project with a survey. This process was lead by a parent committee and largely carried out by parental volunteers. The liaison teacher described this project as very successful within the school community. The participant teacher said that she knew very little about the School Greening Project or the parent committee. She noted that at first the children were consulted but now "they [the parent committee] just do stuff, and then we find out about it."

The teachers described other projects that had occurred throughout the years at the school. One year, children raised money by selling hand-made cards, in order to purchase trees for the school. Unfortunately, all of the trees were cut down several years later as they had been planted too close to the building. The school community had also raised money for school play ground equipment, which was now regarded as a successful legacy project. The story of fundraising for the project is well-documented and presented on a plaque at the play structure site. It was a celebrated community development project.

When I asked about the Jade status awarded to Princess Margaret by Green Schools Canada, the liaison teacher was the only person who had been at the school long enough to recall the program. She suggested that "there was a buzz when that was happening; it was our school-wide theme for a while." She described the program as simple to follow, because each time students did something with a connection to the environment, the project got written up and submitted to the office as part of the program. It was an easy way to incorporate the environment into the curriculum throughout the year. She described the banner and trophy on display in the library that the school won for their participation as a great way to celebrate student "wins." The liaison teacher had never seen the award nor heard of the program. Neither teacher was aware if the Green Schools program was still up and running. The liaison teacher suggested that the teacher who championed the program had since moved on to another school. This illustrated the importance of teacher and administrative support and communication to sustain momentum for student projects and a whole-school approach.

I followed up with Green Schools Canada to determine the status of the program. Green Schools is still operational and continues to track environmental projects of participant schools. In a phone interview, a representative was very surprised that a school who once had won JADE was no longer aware of the program. However, Green Schools is a tracking and recognition program and does not solicit participation from schools. In conversations with teachers, time, support and leadership are all factors that would be required to re-establish a Green School program. This illustrates a gap between existing sustainable development programs and the ESD initiative.

The Principal and Vice-Principal

The Principal and Vice-Principal requested a collaborative interview as they work in close partnership.

They approach their leadership roles as a team. They emphasized the importance of making connections between students and the community. The Principal suggested that divisional goals are to "try and create responsible, concerned citizens." This administrative team emphasized that students understand the school environment because they experience it every day:

They're playing out there in the playground, they're playing in the parks, they're in the street. They are not driving theirs cars around, they're riding their bicycles around and they certainly know what they want to do that's going to keep them healthy keep them active...they know the things they want to do.

When asked how students could participate in making a change in the school environment, the Vice-Principal noted the importance of personal observation and the power of personal student initiative.

When asked how adults can support children in the process of making change, the Principal suggested that:

Children have really great concepts and ideas, but at times, the concept ideas may not be achievable. And they might not be achievable not because they couldn't be done, but because there's other mitigating circumstances that may cause it not to be a really good idea to do at this point in time. It may be safety issues. It may be budgetary issues. It may be a lack of community involvement that is not going to make it happen. It's fine to have an idea, much like our own Greening Project we have here, but if you don't have people who are going to look after it, water the plants, take care of it, make sure that it says a viable place that looks nice and that is going to be sustainable over time then there's no point in really doing it. And with children, without the direction, they could plop a whole bunch of wonderful things on the table, but the viability may not be there. So adults need to help and support to provide some of that maturity, and experienced thought behind it.

The administrative team emphasized the importance of framing the project within realistic expectations to ensure that children were not disappointed. They described the importance of helping children to think

through a process and understand all planning stages in order to avoid a project concept that fails to meet children's expectations.

When asked about what sustainability projects the school has undertaken and how they have been successful, they describe the School Greening Project. The Vice Principal explained it in this way:

Our big project of course is our Greening Project. We surveyed the students and they got to have some input, and for many of them their parents are involved, so they continue to have input that way through their parents, so we of course seek out their thoughts for those kinds of things as well... really it boils down to two or three really dedicated, committed people who put in a tonne and a tonne of hours. And they figure out who all of their supports are and who they need to draw into the process and spend a lot of time doing that. And if they are successful doing that, then the project is successful.

The administrative team was dedicated to the idea of projects that enable students to make connections with the community and their environment. They were very clear about the problem that unrealistic expectations can create when working with children. Their personal knowledge and experience emphasized the need for sustained adult leadership in school projects that involve children.

5.2.2 Post-workshop interviews

Following the participatory planning workshops, I interviewed 21 students, 2 para-educators and the participant teacher. These interviews focused on the experience of participating in the planning workshops and therefore did not include the administrative team or the liaison teacher as they had not been active participants with the students throughout the nine weeks. Of the 26 students in the class, 21 volunteered for the post-workshop interviews.

Students

Students had spent nine weeks developing projects (explored further in section 5.4) and were able to speak about their personal experiences. Knowledge built through hands-on learning enabled children to speak with confidence about what they had identified as issues within the school and how they imagined their projects could help to make a change to improve the school environment. All the children reported enjoying the participatory workshops and only one child suggested that if given the opportunity again, she would have pursued a different topic for her project. When asked why, she had decided that other projects were "more important" than her own, suggesting that "comfy places helps people, but more recycling and composting helps the world, everybody in the world." In the post-workshop interviews the work conducted by the recycling and composting groups was highly regarded by students. In pre-workshop interviews students felt they could make a change in their school environment, but were uncertain of how to do so. Post-workshop interviews revealed that through the process of their own learning and discovery, students felt they could draw attention to issues to affect changes in their school environment. Students reported feeling very happy with the result of their projects. Two of the students with special needs reported feeling "more confident" and "ready to inspire other kids." Most students interviewed felt that their project had made a difference in the school community because "people are talking more about the issues now."

When I asked one student how she would inspire other kids interested in improving school sustainability, she responded by saying "I would encourage kids to look at the tiniest things and they would probably find the biggest problems." When asked to explain further, she talked about photographs the students took of the garbage cans on pizza day. "It just makes you think" she said, "why do we pollute so much?

And that was just from one day." Other students suggested that now that the workshops were over, their projects were also over. This was especially significant for one student who had written, directed and created a film about generating less garbage. She felt that the school should have done something for Earth Day or shown her film to students at the school. In the participant's class a substitute teacher was present for Earth Day and their activities consisted of a story and a work sheet. The student was disappointed that only the liaison teacher's classroom appeared to do something active to celebrate Earth Day (they cleaned garbage from the field).

Other students cited barriers to implementing their projects, which had included plans for a display case. This student group had identified an empty display case as a place to engage their school community. They were thwarted the following week when a teacher placed projects in the case, which had been empty all year. When I asked the student to describe what made her project difficult she stated that "sometimes you couldn't put stuff where you wanted it because you aren't allowed to or because there wasn't any room or stuff like that." This factor was a challenge for the group throughout the workshops. When I asked the teacher who suddenly took ownership of the case if she could remove the display after a two-week period to allow the student project to move forward she agreed – but then she never actually removed the projects.

In a follow-up interview with the participant teacher, she noted that the display case project would move forward now that teachers had signed up for display case times. The organization graph created by the students was posted in the staff room. This student project was directed at teacher engagement, but struggled to get off the ground until their teacher helped organize support. Another challenge was

identified by the students who had created a film about the need for comfortable places to read in the school. This student group wished they had been even more explicit about the fact that the staff room was the only comfortable place in the school to read. They reflected that adults and older children understood the message of their film, but younger kids did not.

When students were asked to describe the imagined experience of returning to the school 20 years in the future, most students described improved programs for recycling and composting, more colourful hallways filled with art and a place for students to read, relax and play games during indoor recess. One student suggested that she would like to come back and see a "very decorative and very welcoming school with lots of art and plants – just like we illustrated on our project board." Students communicated feeling a tremendous sense of pride about their discoveries. One student suggested that "I feel change is starting to slowly go up the ladder." When I asked her why she felt that way, she explained that it was as a result of all of the kids working on projects and talking to people, getting them interested and making them more aware of the school environment.

The post-workshop interviews revealed that students experienced making change in their school environment in small but meaningful ways. The School Environment Fair was an important component of this success (described further in section 5.4). Several students related stories of younger children asking them questions about their projects, while walking home from school following the Fair. The ability to present their discoveries to their school community was integral for the success of the participatory workshops. Some students continued to present their projects to other classrooms in the weeks following the workshops, under the leadership of the participant teacher. Two students were going to be explaining

classroom composting and passing on their project as a legacy to the next class of grade six students.

Organizational support from teachers and administration is required for students to continue to pass on their training as part of school-culture. An example of students-training-students exists for crossing-guard duties in most Canadian schools.

When students were asked what their least favourite part of the workshops was, most replied that they enjoyed the whole experience. Five students wished they had more time to continue working on their projects. When I asked students how they would have used additional time, they suggested they would have written letters to their MLA and city councillor based on their project, created brochures and distributed them to all the teachers in the school or perfected their films with more scenes and editing. Based on information gathered from the interviews, students felt they could exercise their right to make change in their school environment by drawing attention to issues they identified through their photographs, research and projects. The children were most interested in how "the tiniest things" were very important in the context of a school in a community. The children suggested, in addition to talking to people and making them aware, kids could continue to make a difference by making their parents, siblings and friends more aware of issues of sustainability. For the students, this included turning out lights, taking the bus, riding a bike, walking, being active, conserving water, bringing a bag whenever shopping, encouraging parents to switch their light bulbs, not buying so many cans and bottles and recycling/composting whenever possible. Composting lunch waste was a big hit with the students, who hoped that next year more classrooms would adopt the vermi-worm "pets" they now had in their classroom.

Para-Educators

The para-educators were very enthusiastic about the participatory workshops in the follow-up interviews. They identified student engagement through hands-on discovery as an important part of the process, particularly for students with special needs. One para-educator suggested she had been sceptical about me because I was a city planner. Why would a planner want to work with children? However, she concluded that the experience was "awesome" and engaged students very creatively.

The para-educators valued being consulted prior to the workshops and felt that the information they had provided was respected when I began work with students. One para-educator described the workshops this way: "nobody was excluded, nobody felt different, they were all treated the same. That's what I liked about it." The para-educators suggested that based on their observations, students with special needs excelled in the workshops because the workshops emphasized participation, discovery and "hands-on" opportunities. The para-educators valued having support materials that engaged their students and helped children achieve new goals. They felt that the range of tools I introduced enabled an adaptive approach for students working at many learning levels. Both women valued the fact that special needs students were not "pulled-out" during the workshops and were regarded as equal team members.

When asked to describe a significant moment in the workshops, one para-educator related the story of a student who chose to speak at the front of the class for the first time during one of the workshops. When I asked her why she felt the student had decided to choose that moment to participate more actively, she suggested that it was because he felt important, respected and included. She also suggested that

because he had the ability to choose a topic of his own interest he was more invested in presenting it. She described it by saying:

I didn't have to make him do it or promise him anything. For sharing with the class he was up there on his own, he was participating without being pushed and bugged and begged. He went on his own and felt it was important. He was interested and he had his own ideas and you let him pursue that. That made a big difference.

This was tremendously significant for me, as it illustrated the power of using a thoughtful approach when engaging children and allowing choice and voice. The applied learning opportunities of planning workshops engaged students who were not regularly active participants in the classroom.

The para-educators identified time as the only negative aspect of the workshops. However, one para-educator suggested that "I think you are going to find that any timeline isn't long enough because you are going to do more things with them." Both para-educators identified that the students were often looking to me for support or just to share their discovery. Although I brought a volunteer with me from the Faculty of Architecture for three of the workshops, the para-educators felt that even more supporters could have been involved. Both women suggested that the student projects were excellent, but wished that the children had received more adult support to continue on with them after the School Environment Fair. After witnessing student discovery and project development, the para-educators felt that some student solutions should be adopted and supported by the school. They suggested that teachers, administration and other adults needed to provide children with some support to continue on with what they had begun. The liaison teacher was identified as a potential project champion. When I asked the para-educators if either of them could become a school champion, one woman felt that she could see herself taking on that

role in the future. She described how a grass-roots recycling program could be continued, based on the student projects. She concluded that "you would have to get the whole school involved... they [grade six students] were experiencing something that made them realize that you can make a difference – that's how I felt by looking at them. They were amazed at the information they were discovering. They were so into it." Both para-educators expressed some frustration that the project came to an end. One woman emphasized that she had observed genuine student engagement, learning, and enthusiasm. However, there were not sufficient institutional supports to sustain student project ideas to make the school more sustainable. This was consistent with the fate of the Green Schools programme at the school.

The Participant Teacher

In the post-workshop interview with the participant teacher, I discovered that students continued to present their projects for the week following the School Environment Fair. The teacher suggested that the children responded to each other really well. She identified the "next steps" to carry student projects forward were the most challenging, when so many things needed to be accomplished in a school year. The teacher identified student projects as an important first step in generating adult support from other teachers, the librarian and support workers. She stated that:

I know this project was for the students, but the teachers and librarians come with it. I think it was good to just get everybody talking about what could be done. Kids *do* need comfortable places to read and I started to hear staff discuss that now. If the staff discuss it and the kids actually *want* it then it's more likely that something's actually going to happen - more likely than if no one ever brought it up. Now that little seed is planted there's a much better chance that we might actually do something to that library than before when no one even talked about it. I think their presentations made people start to talk about what we can do – maybe we don't have the solution, but people are talking about it. Even with recycling and composting, people are talking about how each class can do more now.

She identified informal conversations between teachers that were sparked by the workshops as an important factor in the success of the student projects. She described teacher buy-in and teacher interest as an important part of any successful project at the school. She suggested that because students were excited, teachers would be more likely to pursue future initiatives. The teacher suggested that because students determined issues for school sustainability on their own, they were more enthusiastic about discovering how small issues were connected with large issues at a community level, city level and global level.

The teacher had not actively incorporated the ESD initiative into her teaching prior to the workshops.

She suggested that the curriculum document for the ESD initiative distributed to teachers was "long and overwhelming." In order to incorporate the ESD initiative, as it is intended, into all subjects she would like:

a page with resources, especially for people you could call to get help. Something really simple would be really great. I haven't looked through the document very carefully I have to say, but knowing who could help with ideas for different projects would be good. We figured it out using the kid's digital pictures, but if a teacher doesn't have access to those resources, having access to a list of potential projects would be good. Even if there was a list of ideas that kids could choose from that would be helpful. Resources, places you can call and websites you can visit to find out more would be great.

The teacher communicated that the planning workshops were very engaging for students and met a range of teaching objectives in social studies (particularly democratic citizenship), self-evaluations and group evaluations, language arts (writing and oral presentations) and "tonnes and tonnes" of technology outcomes. Based on her experience, she would use planning workshops again to implement the ESD initiative.

She stated that she would collaborate with planners or people from other disciplines to enhance student learning but hoped for less "red tape" to make collaborations happen. She emphasized that she evaluated student learning throughout the workshops through observations, conversations, peer and self evaluations, and oral presentations, in addition to the final products. She emphasized triangulation (observations, conversations and products) to assess student success. For her, the student learning process was as important as any products that were created.

The teacher communicated that she would definitely participate in planning workshops again with her students because:

everyone was successful with this project. They all were successful, they all enjoyed it. In the end, whether they made a big change or a little change in the school, they tried and they were proud of themselves. I can't think that this was a bad experience in any way for anyone.

When asked to describe a significant moment in the process for her, she described the School Environment Fair where students shared their projects with over 100 members of their school community. She shared that "the final day was amazing, but even the last two weeks leading up to it were great to see things coming together." For the participant teacher, the strength of the planning workshops was that all children participated equally. She was very supportive of the collaboration and future opportunities to work with a community planner. She shared that:

I think you did a really good job of it. Right off the bat, you were concerned about my special needs students and what works for them and your expectations of them were right at what they were able to achieve. You didn't expect them to do things they couldn't do – or were not capable of. And any successes they had we celebrated. You came very prepared with things that were at their level and that they were capable of doing so that they were part of the group all the time. You had

a wide variety of things for them to do. It wasn't like everybody had to do the same things and they had to look just like this. Knowing that you can't do the cookie-cutter thing because it does not work in a regular classroom nowadays was important. Students loved you and really looked forward to seeing you each week. You did a great job. I was impressed.

The teacher described the planning workshops as a generative process for students. The more students discovered on their own, the more excitement and buzz was generated in the school. She identified that students were talking to their parents about the project. She suggested that because students were excited about what they had discovered, they shared their knowledge with their families. As an educator, she identified that the moment children discuss their learning at home it becomes very real for them, especially if they can change parental or sibling behaviour.

Two components that the teacher would change about the planning workshops in the future would be the organization of time and the complexity of the consent forms. She stated that "kids will always need more time, the work never ends," but concluded that organizing time differently may help reduce student retention issues that affected workshop momentum. She suggested that dedicating full mornings for one week may be a good approach to solve the issue information retention and time management with students. She suggested that the nine week format "was good because you built a relationship with them over time" but given the fact that students, para-educators, the teacher and myself all felt "rushed," an alternate approach to time organization is necessary for future planning. Her suggestion would actually require only 15 intensive hours in comparison to the 24 hours in the nine week organization.

The consent forms were more difficult because the workshops were being conducted as part of a graduate research process. The challenges of consent are discussed more fully in section 5.1. Future collaborations 137 between planners and educators could be simplified, as long as student safety and confidentiality were key elements of the partnership. The teacher also identified funds as an important component of future workshops. Allocating money from classroom budgets or library budgets would need to be considered early in the year. With increased support through policy and interdisciplinary partnership, both the consent and funding process may be improved.

5.2.3 Limitations of semi-structured interviews

Semi-structured interviews with students were limited by the fact that not all children are proficient verbal communicators. Even though participation in the interviews was completely voluntary, sometimes children who wanted to be interviewed found that they did not have a lot to say. Given the fact that children worked in groups, group interviews may have been more successful at drawing out information from participants. However, the advantage of individual interviews was that children who were less vocal did have an opportunity to speak without interruption. This was most evident in a comparison between pre-and-post workshop interviews with a student with special needs. In the initial interview conducted with another student, she said very little. In the post-workshop interview she communicated extensively about her experience, her thoughts and her opinions for the future of the school. As with any method used when working with children, participants will never respond in a uniform way to any approach.

I limited the number of adult participants for interviews as my research focus was on child and youth engagement in planning. A more comprehensive approach could have included a broader range of interview participants. The findings of this research are biased towards the perspectives represented in the interviews.

5.2.4 Analysis and interpretation

It became clear that working with multiple teachers and classrooms from both the English and German language programs would have helped create momentum to carry projects forward within the school. Planning workshops that bring together students from both language streams may begin to bridge the social divide discussed by teachers and para-educators. Future planning workshops should take a comprehensive "whole-school" approach. Whole-school approaches are supported by the literature review.

Participants (adults and children) expressed some disappointment that the projects developed by students would not be carried forward to the next stages within the school. Although the children were able to express more clearly how they could participate in school sustainability, adult permission and support was still required for many of their efforts. The strength of the process was that children identified priorities meaningful to the school community. The teacher described this as an integral first step towards making real change possible. The teacher suggested that if students are invested and excited about something, teachers become interested and committed. It was clear that increased teacher support for improving school sustainability may have helped with implementation or further investigation of the issues students identified.

The School Environment Fair was an important component of the process, as it enabled students to share their work with over 100 child and adult members of their school community. This event helped generate "buzz" which allowed the children to feel pride and success in their work. The next steps clearly required institutional support from other teachers and administration, which was beyond the scope of my work.

Managing adult control of the next steps would be an important factor to observe and document. Once students identify their ability to assess, express, discover and make change, it is integral that adults support but not take over this process. Children must remain active and engaged participants in this process.

All participants communicated that they enjoyed the process of the planning workshops. The teacher suggested that she would like to have access to a central resource hub for contacts, websites, materials and supports for integrating the ESD in the future. Based on the interviews, a human resource was the most important component of the planning workshops. I modelled my role on the "teacher scholars" from Project Discovery in New York (Shulman & Armitage, 2005). This approach is a dynamic and hands-on method to supporting teachers and engaging children in the ESD initiative. The teachers communicated having limited time to teach children with a broad range of learning needs. Manitoba teachers require human resources as well as a resource list of websites, books and manuals to support implementation of the ESD. The planning workshops were intended to provide support, while emphasizing child and youth participation. The necessity of enabling students to produce a tangible product from their participation and share their work with adults and other children in their school community also emerged as an important component for the workshops. Students require adult support to help them carry projects forward. At the same time, child and youth investment and understanding of a project will contribute to its long-term sustainability or development.

5.3 Photography

Photography was selected as a research method as it provided an opportunity for all students to

participate equally. It is an engaging research method when working with young people as discussed more fully in Chapter 4 (Cook and Hess, 2007; Ewald and Lightfoot, 2001). Digital cameras were selected for two reasons. First, disposable cameras would not have communicated a good message to students about using a resource only to throw it away. Second, teachers must incorporate technology literacy throughout the curriculum. I provided five digital cameras and had access to four more from the participant school. Photography was introduced as a tool to frame and see things you may not have noticed before. The choice of photography was deliberate and significant as there was a very broad range of student literacy within the class. Photography enabled students to view their environment in a fresh and analytical way. The children were very enthusiastic about using digital cameras. They were intrigued by the idea of using photography as a tool to explain their school environment, not just snap quick pictures. Photography was employed as a data-gathering method to help facilitate discussion about the school environment.

In the first workshop, children were introduced to the basic features of a digital camera. We explored six basic photography techniques: angle, distance, focus, pan, level and framing. This interactive workshop engaged children in taking sample photos based on the techniques. Using SD memory cards, these photos were transferred to a laptop and collectively viewed using a data projector. Together we talked about what techniques help make an interesting picture. We discussed the ethics of photography in the context of the consent forms the students had to take home to their parents. The children understood that they should not photograph children who were not participating in the workshops. In the following workshop students chose their own groups and were tasked with photographing elements of their school environment that they liked or felt could be improved. Nine digital cameras enabled students to work in groups of three. One student was a photographer while the others documented the subject matter. Each

student was provided with a photo log to keep track of what they had selected to photograph and why.

In the third workshop, we conducted a group analysis of the student photos. This provided the children with a way to interpret their environment and helped establish a convivial atmosphere for the workshops. We employed a data projector to look at the student pictures collectively. The ability to describe photos verbally was a shared competency for all children in the class. Although the photo-logs helped organize student pictures, the children were more adept at talking about the images than writing about them. Photographs were an effective way to identify common themes and elements in the school environment they felt could be improved. Students began to identify patterns and shared interests for potential projects.

Two students scribed the information from this session on to flipchart paper at the front of the room. We used the list to tally how many times themes and images occurred. Students debated the importance of images that appeared frequently – like school bathrooms. Although these "private" spaces were commonly photographed, the group concluded that no one really wished to do a project about bathrooms or toilets. Bathrooms were identified as a location for graffiti that targeted individual students – sometimes to spread rumours, gossip and perpetuate other bullying behaviours. The para-educators followed up on student information that graffiti was present in washrooms and ensured it was removed. Through the group analysis, three project areas of interest emerged for students: boring walls and halls, no comfortable places to read and an inadequate recycling and composting program. Based on student responses, I printed the most popular reoccurring images and posted them the following week at the front of the room to act as visual cues to inform the projects.

QUESTIONS FOR PHOTOGRAPHERS:	PHOTOGRAPHER:
	Image 1:
What angle am I using: up, down or straight?	I took this picture because:
What distance am I using: close, medium, far?	I took this picture because:
	The took this picture because.
Is the focus: soft, sharp?	Imaga 2:
Where is the image in the frame: centre, left right?	Image 3: I took this picture because:
There is the image in the number of the right.	Took this picture because
Is the image: at eye level, high low?	Image 4:
WHAT AM I TRYING TO COMMUNICATE WITH THIS PICTURE?	I took this picture because:
	The contract because.
Fig. 10	
tools from the input	Sample photo log
provided for students	

HAIWAY. good reading place more sime on compoter sinto. bath room door syschangeroum. I fice-V · Library Library the clerk more Hallway
Spaces Bathroom · Computer Lab · Library · Mrs. Cross's office 11 picture of PMS 00m-1# Recycling careet - Library - 1/1/ Hallway . Mr. Renal's office Library-VIV Hallway good organisation, Mrs. K. & Libraria book shelf kibrary-VIIV · Library ·Library (man) office. · " office - ~ Hallway Library white paper, Eraft paper ·Classroom 1d Way - V / / / / ·Hall Way books for Enhana 411 Ghr. ·Classroom Japen Basen Change room Copy room longry realnatural light Coba coom Gym 'Award e bathroom · Books for ghana Hallway · Mrs.hebert Hallway Couch Hallway Improve ·Laundry Hall "Class coap

The students enjoyed digital photography and learned how to use their pictures in their own books and PowerPoint presentations. Photography helped students observe and analyze their school environment in ways they had not previously. This was evident in the photographs of garbage cans on pizza day which generated more waste than an average school lunch. Photography was a hands-on technology experience that was engaging for all participants.

For students to accept their roles as photographers, it is important that the facilitator not talk down to children. Emphasizing expertise, training and responsibility is a positive way to communicate the fact that a digital camera can be a costly tool. Spending time to orientate students to this tool is more helpful than cautioning students to be careful. Prior to facilitating any photography workshops, it is important to plan your communication style based on a participatory ethic of adult-youth partnership.

Student photographs illustrated a range of observations and interests. One student photographed the "Green School" award and the "Jade" trophy mentioned by the liaison teacher in the pre-workshop interview. The student suggested she had "never really noticed it (the award) before." In her photo, a globe hangs from the ceiling. Boxes and materials are piled in the corner of the library and the award is located high on a shelf out of sight from most students. The meaning of the Jade award was not understood by students in the participant class. The student photographer had captured an important message. When we discussed this image, the "messy," "forgotten" and "leftover" quality of the boxes and paper in the photo was extended to the meaning of the award. Although the school had been tremendously successful in achieving over 250 "Green School" projects, the legacy of these efforts was not well understood by the current student community.



When we analyzed this photo, I asked students "why do you think your school won the award?" Students were unable to answer. I asked students "who do you think the school environmental champions are now?" This was also a difficult question. They concluded that it was the teacher who collected cans and took them home to be recycled, as there was no program for aluminum recycling in the school. The students did not identify any children as environmental champions. The photographer and her research partner became determined to champion the environmental cause in their school.

Students were very creative when trying to communicate messages about their school. They understood that they could not show faces of children who were not participating in the workshops in their pictures, but devised strategies to include kids in their photos. One student suggested that:

I wanted to show people in different places, so I asked if I could take their picture and they said yes so I told them to like put a book in front of their face or like turn their back and stuff so I could show kids in the pictures.

This student was consistently interested in showing how people interacted with their environment. When I left a camera for students to access when I was not at the school, she would often request it to take photographs. She was interested in capturing social situations. Her photos of a class field trip illustrate a contrast between students being narrated to by adults at a museum and students being communicated with during the workshops.

Students took more photographs of "boring walls and halls" and empty display cases during the photography workshop than any other single subject area. Blank billboards were shown in contrast to vibrant billboard displays for a book drive the whole school was participating in. Students identified that



these "public" areas affected "everybody" at the school and should be more interesting and engaging. The library was the second most common area photographed by students, particularly the bright blue reading carpet. When I asked students why they took so many photographs of the library, a student with special needs suggested that it was because the school needed more comfortable places to read. Her analysis was supported by her peers who suggested children photographed "uncomfortable," "ripped" and "hard" chairs for the same reason. Based on the photo-analysis, students signed up for one of three groups to begin to understand the issues they identified in more depth. Twelve students organized into three groups signed up to investigate and plan solutions for "boring walls and halls," seven students divided into two groups decided to tackle the problem of "no comfortable places to read" and seven other students in three groups set out to research what could be done about recycling and composting. Photography was a significant tool for several students with special needs. I engaged one student who required a lot of support to work with me as a documentation partner. Although he sometimes had a difficult time relating to his school community, his photographs were person-centric and thoughtful. He was talented at capturing candid images of his peers working. He suggested these photos are more interesting than posed pictures with "everyone smiling."

5.3.1 Limitations of photography

Digital cameras may not always be accessible to planners and teachers. If cameras are available, sufficient time to orientate students to the technology is required. Digital cameras also limited the opportunities students had to take pictures of their environment. Unlike disposable cameras that could be sent home with children, digital cameras were generally used within the context of the workshops. When I left a camera for students to use, it often stayed locked in the teacher's desk. Another limit that emerged was



the weather on the day of the photography workshop. The cold temperatures were so severe that children were not permitted to go outside for recess. The extreme conditions on that day prevented the students from taking digital pictures of the exterior of the school, the playground and surrounding neighbourhood areas. Even if outdoor exploration had been permitted, the cameras may not have worked, given the cold. The cold undoubtedly limited the scope of the project to the investigation of interior school environments. As students were truly restricted to the school interior, it made sense that they explore this area fully in their inquiry.

5.3.2 Analysis and interpretation

Digital photography helped generate student excitement and buy-in for the participatory workshops. The children did successfully identify elements of their school they did not notice before. This group of students did not write significantly about their photographs but were proficient at talking about their photos and why they took them. Preparation and training was important for the photography workshops. However, even with a dedicated training session, most students could still not resist photographing toilets, urinals and bathrooms. When working with children and photography, planners should be comfortable engaging with children to talk about their pictures, no matter what they have selected to photograph. Discussing the intent of the photographs prior to the activity is very important so children understand how the images they capture will be used in their own work.

Engaging student photographers to help document the workshops was an important component. This enabled me to provide another tool that emphasized students as leaders in the workshops. Some children enjoyed using digital pictures in their work instead of drawing because they felt the images made 151







their products more "professional" and helped them effectively illustrate an idea. The negative effect of introducing digital photography along with computers is that children elected to create less work by hand. With access to photographs, clip-art and word-processing I saw less "by-hand" work than I originally imagined would be created in the planning workshops. Photography is a tool some children continued to develop proficiency in throughout the workshops while for others it was only used during the dedicated photography workshop. As with any method, it appealed more to some participants than others.

5.4 Participatory planning workshops

Workshops were designed to enable as much student choice and discovery as possible. Students used digital photography to assess their school and determine projects that would made it a more sustainable. School sustainability was introduced to students as an approach to improve the school to make it a better environment for both people and nature. The weather limited student photography to the interior of the school as the temperature was below -30° Celsius with an additional wind-chill. The students collaboratively assessed their photographs and determined three project areas: "boring" walls and halls, no comfortable places to read and a lack of recycling and composting.

Students created nine distinct projects designed to engage their school community. Two student groups decided to create short films: "No Comfort" and "Recycling Kid." Prior to filming "No Comfort", students conducted interviews, wrote a script, learned their lines and scouted all locations in the school where children were allowed to sit and read. In the process of filming, the student director found an adult that he "knew would say yes" and managed to film his characters in the staff room. The staff room had been off-limits to children during the photography workshop and his ability to gain access for the film crew

was particularly strategic. The school provided a relaxing and comfortable place for adults, but did not accommodate students in the same way.

The writer and director of "Recycling Kid" researched facts about recyclable materials and imagined a story of the boy who invented recycling. She created a story-board and developed a script in addition to designing costumes for her four characters. She created promotional posters, radio advertisements and "special features" for her film. This student also wrote the school announcement for the Environment Fair. She manufactured (by hand) ten CD covers and hoped to distribute her film to other schools to promote school recycling. Her project was especially significant as she was a student with special needs. In selecting her cast, she included two other students with special needs to memorize lines for starring roles in her film.

Each film group wrote scripts, filmed their scenes and created an editing plan. Due to time restrictions and the fact that the school did not have a digital film editing program, I compiled the student films for them. We reviewed edited versions together and the students made decisions about the final versions which were accommodated as much as possible within the limited time frame. In future, I would like to work with the children in the film editing process. The director of "No Comfort" wished he had the opportunity to re-shoot the last scene of the film and make it more explicit that the only comfortable place for children to read was in the staff room that was off-limits to them.

One student group created a book about the necessity of comfortable places to read for students. They include an analysis of the negative effects of the school bell that rings throughout the day and advocated

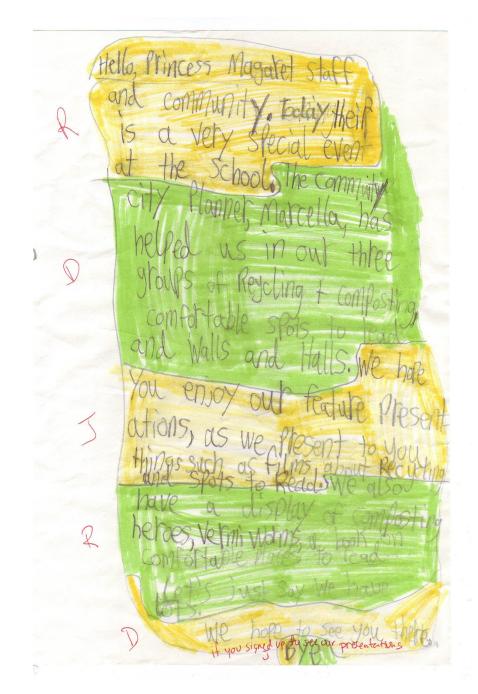
for increased personal space for students, particularly in classrooms where desks are very close together.

The following is a selection from their book *Why Do We Need Comfort?*:

Have you ever felt cramped or that your personal space has been invaded? Sometimes this happens to me while I am sitting at my desk in my class room. Personal space is a very important thing. Here is another question. Do you share a room with an older or younger sibling? If you do, you might feel cramped in there sometimes, right? To start making places more comfortable buy expanding your space I thought that you could talk to your teacher and think of a way so that the desks are not so close to each other.

Their book included a compilation of testimonials, short fiction, a comic, facts about personal space and photos created to express the message of their book. This group hoped that the library could become more comfortable for students. They were interested in raising money for bean bag chairs or designing pillows. They felt that more plants would improve the oxygen quality of the library. They did receive some adult feedback that was discouraging. The feedback included telling the children that pillows would likely result in pillow fights and children would not share bean bag chairs and would fight over them. The children did not accept these reasons as they had classroom reading pillows in grade two which never resulted in pillow fights. Although the students did not feel they were able to affect great changes with their project, the participant teacher and I both observed other teachers discussing this project in the staff room on several occasions.

One group identified the walls and halls as an important place to promote student health and active living. They started by mapping the halls and identifying places to improve. They designed an eight foot poster with original artwork promoting active and healthy kids in the neighbourhood. In addition, they created a PowerPoint presentation about the benefits of skateboarding, break-dancing, and eating healthy food.





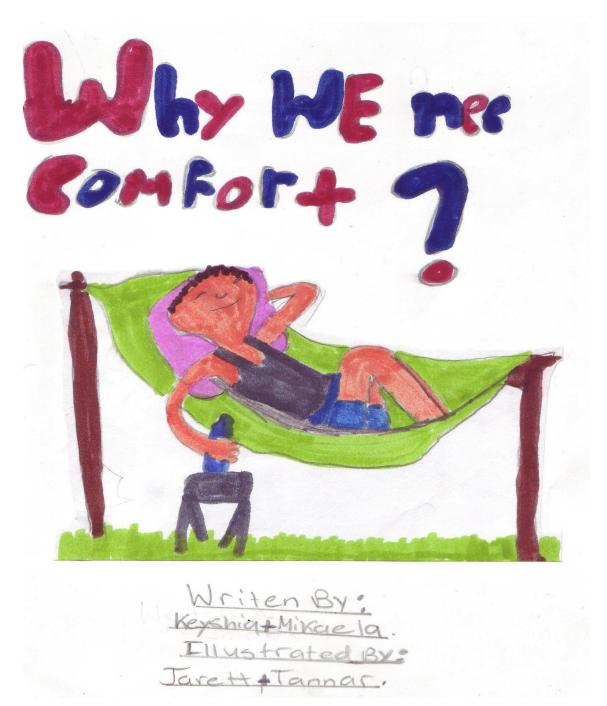


A research focussed group created a demonstration site for vermi-worm composting. They designed and assembled a vermi-worm compost bin, created a project board and delivered a presentation about reducing classroom food waste with worms. This group conducted interviews and research about the benefits of composting for municipal waste reduction. They introduced many students to the hard working worms in their bin and became knowledgeable community composters.

Another group influenced many people with their dynamic PowerPoint presentation about calculating an environmental footprint, recycling facts for Manitoba and the effects of municipal waste on the environment. In follow-up interviews this group was in the process of writing to their MLA about their project. Two other students created "compost pile heroes," wrote a comic and created a PowerPoint about the super bugs of nature. The "Kid Zonz" group created a map of their school which identified areas by activity and made recommendations for improvements such as working with local artists to display "real" art in the halls, especially Aboriginal art, creating murals, including plants in areas where people need to concentrate and designing adequate storage for jackets, boots and bags.

The last group designed an engagement strategy for teachers to use the display case in an interesting way all year long. They hoped to encourage teachers to sign up and to display student projects that made community connections. They interviewed teachers and created a sample design for a four-class collaboration promoting the "Make Change" initiative to raise awareness and funds for homelessness in Manitoba.

The participatory workshops culminated in a half-day "School Environment Fair" planned, hosted and

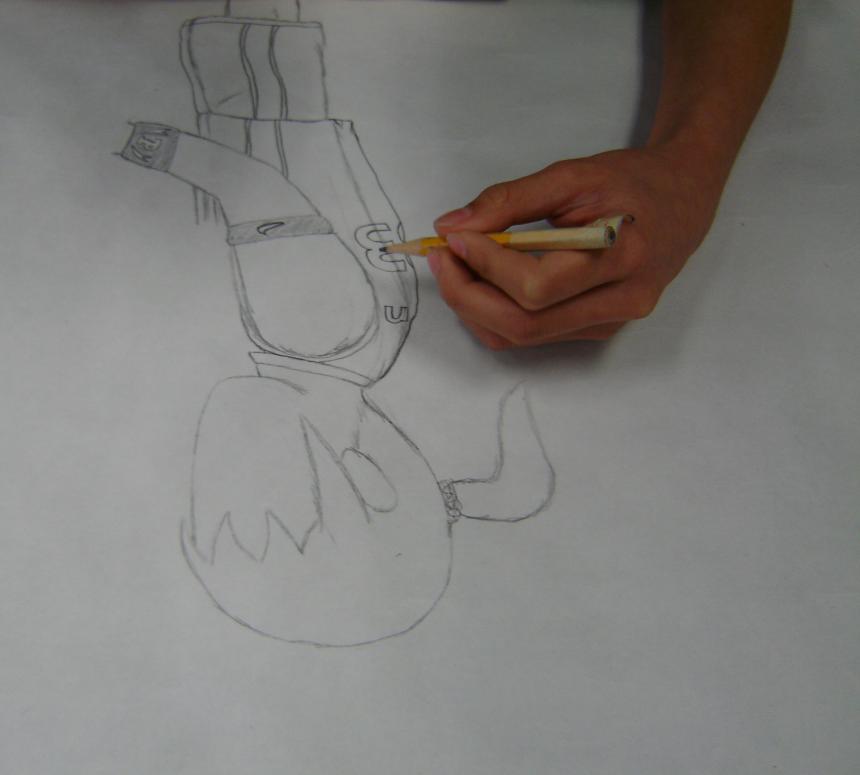


facilitated by the 26 students in the class. They wrote an advertisement and performed it during the morning announcements and created invitations and a sign-up sheet for five classrooms. Over 100 students, staff and the administrative team visited the library and viewed the nine student projects presented during the fair. Students worked hard on their presentations; each group presented at least four times throughout the morning, as classes cycled through in rotation.

The Fair was an exhilarating but exhausting process for the students to undertake. The community engagement event was regarded as an important moment for participants, as they had successfully promoted issues for improved school sustainability and generated a "buzz" within their community. It was significant that all students, even those with special needs, participated in the full morning of







presentations. The students were all very committed to the Fair. Many students dressed up formally for the occasion and were prepared for public speaking. I included a display about my thesis project process with the students and included a short film I created that documented the workshop process. Following the School Environment Fair we celebrated in the classroom with a party we had planned. Students completed peer assessments before the party began. Party planning had included designing a menu that would generate the least amount of waste possible while still being "fun and healthy." Feeding the worms was an important part of the celebration.



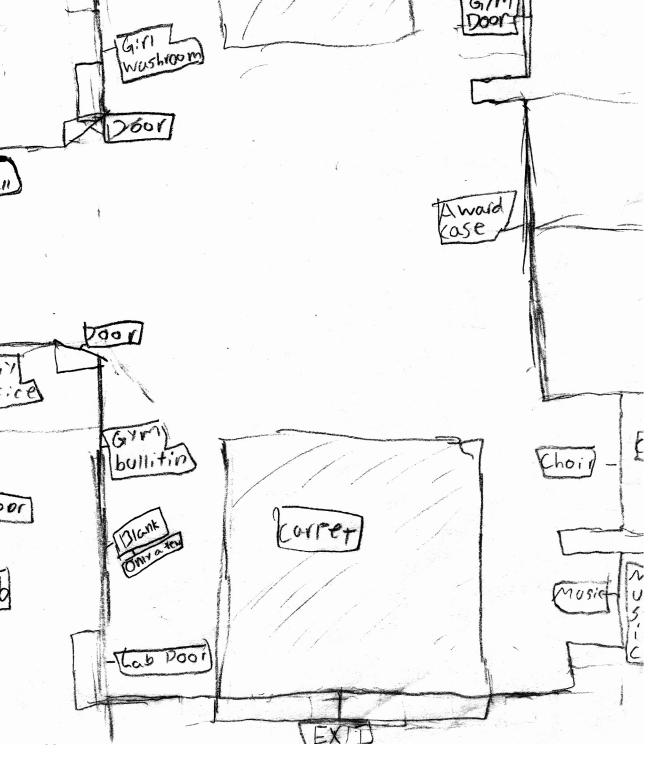




5.4.1 Limitations of participatory planning workshops

Time was a significant limitation of the participatory workshops. This is mentioned in the analysis of semi-structured interviews as well. Inquiry-based discovery is a complex process. It requires substantial time and resources be provided to students. In addition, some students excel when provided with lots of choice while others require more direction in order to succeed. Insufficient adult support was another limitation of the workshops. Although students did not imagine unrealistic projects, their ideas were not immediately taken up by their school community in a significant way. This was largely as a result of the limit of working with only one participant class of 26 students which is less than 7% of the student population of the school. If implemented with more classrooms, the excitement, momentum and additional teacher buy-in may bring more school-wide support for student generated ideas.

SIGN - UPSHEET For our school Environment Fair.	
9:30-10:00	
10:00-10:25	
Recess	
10:40-11:10	
11:10-11:40	
<u>LUNCH</u>	9000



It is important to have art in the halls because it is decorative. It inspires kids. It makes people proud of their work. Kids like to feel that they are real artists.

Hallways need to be tidy. But they should also be interesting. The grade 4-6 hallway is the plainest hallway in the school. The problem with the boot rack is that there are not enough shelves. People kick the boots and trip on them. This is a problem for safety. We would design the boot shelf to have one more shelf and a tall backboard that art could be posted on.

We would like to have more plants in our area. Plants make you feel good inside. It makes us feel safe and happy. Plants make the school smell good. We get a good feeling from plants. We feel peaceful. We also feel plants express the natural environment.

The planning workshops were an experimental way to implement the ESD initiative in a school setting. The research lacked macro (national policy) level support. Although my research was grounded in the ESD initiative, I had not made successful connections with individuals responsible for policy implementation. The participatory planning workshops were accepted at the micro (institutional) level, but initiatives and project ideas were not actively endorsed. As a grass-roots approach to policy implementation, the planning workshops were limited by these factors. The School Environment Fair was celebrated as a success by all participants. Invitations were not sent to parents/guardians/family, the Superintendent of Schools, city councillors, or local media. The children expressed not feeling comfortable having unfamiliar adults at their presentation. More time would have been required to prepare students for public presentations outside of their school community.



Student writing (opposite page) Kid-Zonz presentation (right)



5.4.2 Analysis and interpretation

Participatory planning workshops provided a variety of ways for students to explore school sustainability. While some students pursued conventional environmental concerns like recycling and composting, other students considered how the school facility could function as a more sustainable learning environment offering more comfort, improved air quality and vibrant "public" areas like hallways and the library. The participatory workshops were only able to be implemented and succeed due to the support of the administrative team and more significantly the participant teacher and para-educators. Without this adult support, engaging children in school would not have been successful. Although I describe a need for additional teacher and administrative support in order to help carry student projects forward, it is clear that this experimental planning workshop to apply the ESD initiative was an important first step in interdisciplinary collaboration.

Throughout the workshops I developed a number of tools to guide the discovery process. In week five all student photos and a summary of the analysis was compiled. Students also created large posters to promote their project. These large poster-boards remained in the classroom for the duration of the workshops. In week six we began with a hand-out to explore the "root causes" of the issues students had identified (see Fig. 15). Two companion pieces were used with the "root causes" hand-out. The first was a flow-chart illustrating the process to date (Fig. 14) and the second was a step-ladder planner to help students see the process of the workshops (Fig. 16). In week seven, I simplified the planner to help students organize their research and various project materials (Fig. 17).

The participation of engaged and determined children helped me to understand how the participatory

workshops served the school community and provided significant lessons for planning researchers and professionals. Children adapt quickly to new technologies but require the ability to ask many questions and receive affirmation during their discovery process. Children were eager to make their own discoveries about school sustainability. Providing support to children requires patience during the organized chaos of discovery learning. During workshops planners should be prepared to pose a range of questions to children to enhance their learning and provide examples in their inquiry process. Ultimately, planners bring experience to the classroom that children find interesting and wish to understand. Children are naturally curious about their environment and the ways in which it is connected to the broader world. Participatory workshops are an opportunity to engage children and youth in a school environment. Interdisciplinary cross-training was integral for my success when working within a school community.

5.5 Participant observation

Throughout the planning workshops I conducted participant observations and kept weekly fieldnotes based on my experience of watching students. Workshops were conducted in the library and adjacent computer lab. At times students would also be working in other areas of the school mapping, filming, interviewing or photographing. Initially, the participant teacher observed students from a central location, generally at the library circulation desk. She was watching students interact with each other in order to assess the them in their process of discovery. As the workshops progressed, the teacher played a more active role assisting students as they developed their projects.

At times I wished for more support when the room seemed to be what I perceived as unfocussed disorder.

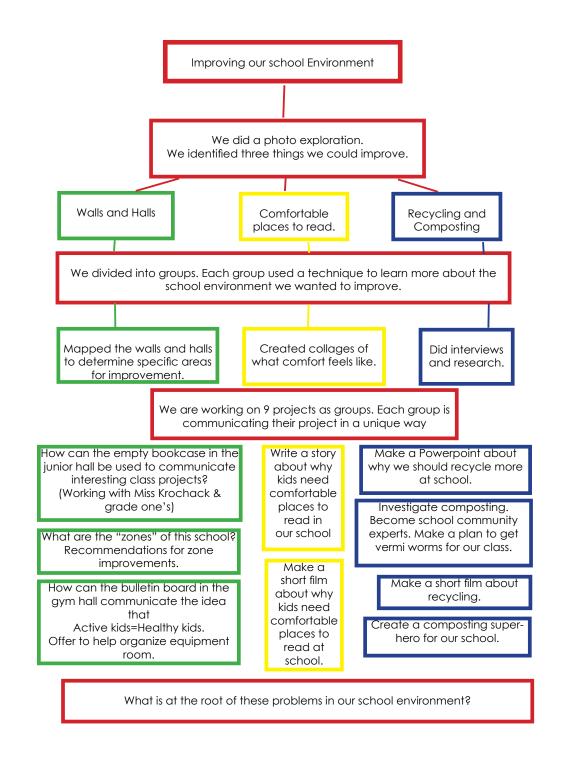


Fig. 13 Workshop flow-chart

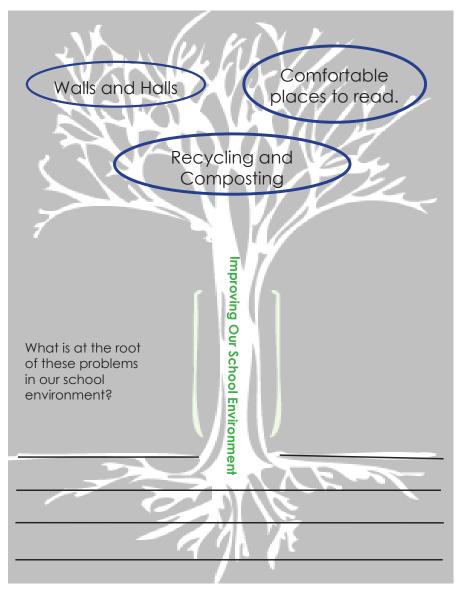


Fig. 13

The last Step: Celebrate your ability to participate in creating a change! Step Seven: Make a plan to communicate your project to your community. **Step Six:** Participate in creating your project. Step Five: What materials do you need for your project? Who do you need to talk to? Do you need to ask permission or plan an interview? Step Four: Imagine how your project will help create a change. Include what you learned about the root causes. Discover the root of the problem. Why are things are Step Three: the way they are? Step Two: Decide on what you would like to improve and why. **Step One:** Analyze our school environment with photos.

What is the message of your project? Why is it important for your school community? What would need to happen next to make your vision a reality? (What are the next steps?)

However, I was able to reflect later that her "hands-off" style enabled students to make discoveries on their own; even if that meant letting them struggle through some challenges or taking a wrong direction or two if necessary. Encouraging student choice resulted in a workshop environment where nine different projects using a range of mediums were going on at all times. The children worked independently but also liked to ask questions, seek affirmation and generally give updates on their discoveries. I learned to adapt to this "messy" process over my nine weeks of working with them. In order to understand what I was observing I had to gain an understanding of how the children in the participant class worked.

I observed adultism (the tendency of an adult to try to take over or guide a project) on two occasions. The first was when a substitute para-educator who was unfamiliar with the planning workshops joined the group to help children film. The second time was when I invited the liaison teacher to work with the group designing an engagement process for teachers. This particular group had not made much progress on their project. Often, I would observe three of the four group members socializing while the fourth member sat quietly. When I asked the liaison teacher to come to work with them for one workshop, I had hoped they would use her as a resource in the process of designing their strategy to engage teachers. I observed the liaison teacher giving students specific direction for their project as they had not prepared any questions for her.

In a school environment, it is not unusual that a charismatic teacher like the liaison would try to get the students working towards their goal. In my fieldnotes I expressed concern about adult control over student projects, but upon reflection I understand that the children work in so many different ways that a range of adult approaches are necessary to help the children in their process of discovery. The fact was that only one of the four girls in the group was actively working to create something. Her efforts were not supported by her group members. Following the intervention of the liaison teacher these students made significant progress and I ensured they had adult support for the remaining three weeks.

In the process of watching children during the workshops, I recognized that introducing new materials always required discussing the purpose for their use with children. Many children naturally enjoy craft materials. Capitalizing on this interest can be an asset to the planning workshop or it can be a distraction. Planners should ensure they engage children in a conversation about how they intend to use materials or equipment and ask questions when necessary to help children plan a strategy to communicate their intended message. For example, when model-making materials were provided to the groups who requested them, it was important to ask children how they planned to use the materials to communicate a message. I observed that if I provided materials without investigating how children intended to use them, some children would take the opportunity to engage in free play with plasticine, pipe-cleaners, and other craft materials. Providing instruction for digital cameras and video cameras was important as children used these tools in a professional manner with competence.

Most children in the workshops enjoyed using technology, but this may not always be an asset during a planning workshop. I observed that children regarded their own handwriting as a liability and usually preferred to type out information on the computer. Only a few children felt confident creating drawings to include in their research. Many children wanted to use clip art or images from the internet and had to be encouraged to draw. As a result, children would often throw important first draft materials in the garbage instead of including it with their portfolio work. From a community planning perspective I recognized that

the original hand written and drawn materials would be important when considering projects as a process of discovery. Unfortunately children discarded many things before I or the teacher noticed the materials were no longer in their portfolio files.

I observed that some children could manage their project plan very successfully on their own. Two girls were especially skilled at working with their peers with special needs. I observed them inviting equal participation and ensuring all members were working on a task that was of interest to them. From the high level of team participation I observed, I concluded that children can be highly skilled in collaborative work. Not all children managed collaboration naturally and had to be reminded that every student had the right to participate equally. Some students were deeply engaged in creating a dynamic project while others seemed to sit and socialize. I observed that children will participate in a variety of ways during a planning workshop. Providing a range of opportunities, tasks and mediums that can be accessed by children with a range of abilities and interests is very important.

5.5.1 Limitations of participant observations

The range of activities and discoveries occurring concurrently during the workshops made it impossible to observe everything. My fieldnotes were created following the workshop sessions but reflect an interpretation of the events of the day, not an exact record. The most significant limitation of participant observations in a school is that as a planner and an outsider to the community I did not always understand the school environment and interpret it with clarity. This is obvious in my concern over the "chaos" that often transpired. The teacher was comfortable and confident that the organized disorder was a necessary part of the planning workshops. Although I understood this concept in theory and had even planned for

it based on the literature review, some of my observations reveal that I was still experiencing a learning curve when planning within the conviviality of a large group of children.

5.5.2 Analysis and interpretation

Participant observations and fieldnotes provided a narrative memory of the planning workshops with children. These observations were valuable when interpreted within the context of the information gathered from the post-workshop semi-structured interviews and the photo and video documentation. Observations on their own would not have provided me with sufficient interpretation of the workshops. Observations should always be considered within the context of conversations and other materials gathered during the research process.

In a planning context participant observation is useful for identifying community members who may not feel comfortable participating in group discussions. Finding a way to communicate with all participants is an important skill in community engagement. In the workshop context I identified that some children enjoyed talking and relating experiences while other children would work quietly at a task. Often, I discovered that students who appeared to be very quiet would actively participate in one-on-one conversations with me. At times a child would communicate a group conflict that he/she could not resolve on their own. As the workshop facilitator I helped open discussion within the group through a series of questions and provide each group member with an opportunity to talk. Using participant observation I was able to identify conflict between students on three occasions and helped students come to a resolution. As in any community, children in a classroom or school may not always like each other and get along. Although this was not a significant problem in the workshops, small social tensions did exist within

the group that required facilitation at times. This illustrates that like adults; children possess a range of knowledge and experiences and are not a homogenous group. Understanding that "children" do not belong to a standardized category is an integral part of engaging them in planning workshops. Participant observations were integral for identifying the communication styles of the children in the group and adapting an approach to engage with them.

5.6 Chapter summary

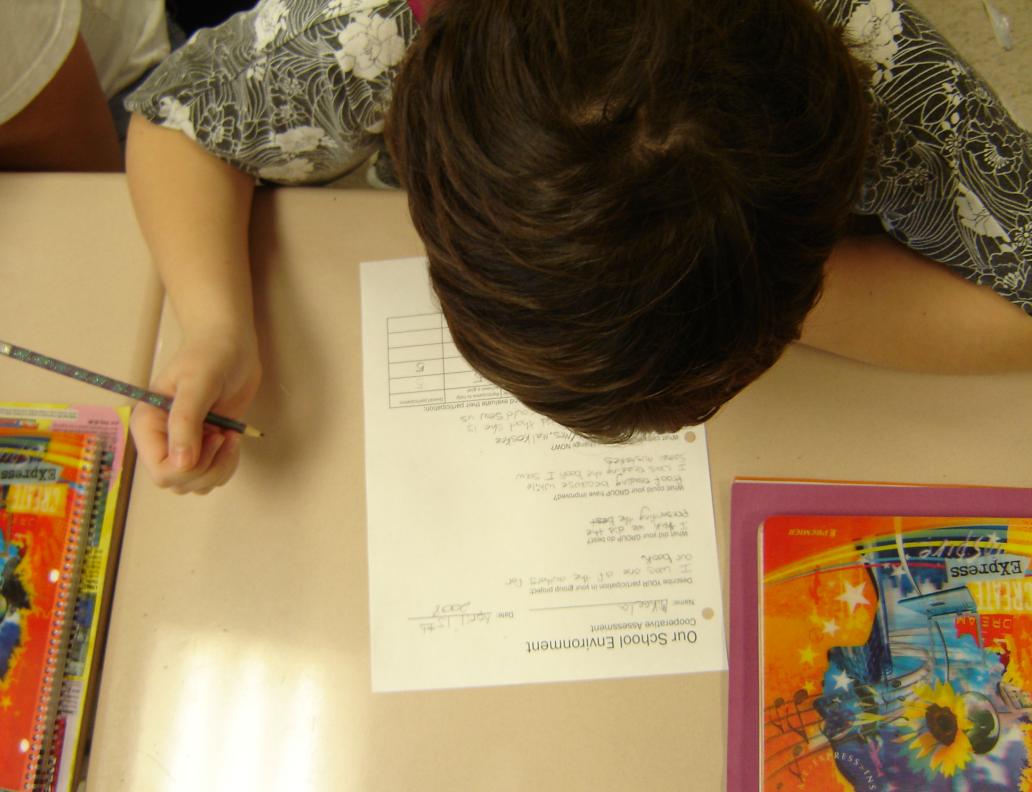
The choice to use multiple methods in this research was significant. Semi-structured interviews conducted with a range of participants helped to lay the ground work for the planning workshops based on the needs of participants. Interviews helped to provide individual perspectives on and interpretations of the school community. This qualitative measure was an important step that influenced subsequent stages of the research. Follow-up interviews helped me to assess components of the workshops that were successful as well as opportunities for improvement. These first-person accounts significantly shaped the research and the interpretation of my findings.

Digital photography helped to engage students and generate excitement for the project. With this group of children, photo-narrative was more successful as a verbal exercise than a written exercise. Children were able to identify common themes and issues using digital photography and collaborative assessment of the images. Sufficient time for instruction and orientation for photography was very important. Planners must have the interest and ability to discuss student photographs in an engaging and non-judgmental way. Some children will enjoy photography more than others and may continue to use the medium for self-expression and communication throughout the planning workshops. Photography

was a good tool for helping children identify priorities, but is not the only method that could have been employed to engage students and identify issues for school sustainability. If digital cameras are not available, storytelling, mapping or even a treasure hunt can be used to interpret the school environment. The planning workshops were highly regarded by the teacher, para-educators and students as an engaging tool to implement the ESD initiative. Providing children with a range of materials, examples and human resources helped to establish a hands-on inquiry for school sustainability. Time will always be a factor that impacts participatory work. Planners may wish to organize intensive workshops over a 3-5 day period to avoid issues of student retention and achieve a more condensed process of engagement. Teachers may continue projects over a longer period of time based on initial planning workshops.

No matter how planning workshops are organized, the discovery must be student-led, participatory and produce a tangible product at the end of the process. It is also important that children have the opportunity to share their findings with other members of their community.

Planning workshops have great potential as a tool to implement the ESD initiative. They are practical, applied, and student-driven. Multiple curriculum outcomes in social studies, language arts as well as technology can be achieved. Ultimately, children should be provided with opportunities to assess their school environments, express those observations, explore opportunities to make change and develop those ideas to make change happen. This process is best supported by a whole-school approach where a number of teachers, parents and administrators are willing to support these efforts collaboratively. Educators interested in using participatory workshops to implement the ESD initiative in their schools may consider the following:



1. Collaborate.

Make connections with other educators interested in using participatory workshops to implement the ESD initiative. Plan opportunities for a range of grade levels to work together and/or present to one another. Work to establish a "whole-school" approach at a grass-roots level. Engage with administrators and parents.

2. Reach out.

Local universities and colleges are a good resource for volunteers and mentors with specialized skills. Students volunteering as "teacher scholars" can help support the process. To establish contacts, have your students design a poster about assessing school sustainability. Write a brief e-mail explaining your request. Send the poster as a PDF to University faculty secretaries to circulate on departmental mailing lists.

3. Get focused.

The goal of workshops is to engage students in evaluating school sustainability. Explain "sustainability" in simple terms that include society, the environment and the economy. The definition could read: a sustainable school is better for people, better for the environment and costs less money over time.

4. Get ready.

Prepare a range of opportunities for exploration and expression. This may include photography, mapping, collage, modelling, writing, PowerPoint or film. Provide instruction for any approach you introduce. The goal is to assess school sustainability from a student perspective. Each tool should help identify opportunities for change.

5. Use the school as your lab.

Facilitate hands-on opportunities to evaluate the school environment. Empower students to *Assess and Express, Explore and Discover* and *Make it Happen*. The process should use a range of methods to map both the "wins" and future opportunities for change.

6. Emphasize community engagement.

Encourage your students to design projects that communicate to people within their school, their homes and their neighbourhood. Highlight their ability to teach others based on their discoveries.

7. Share and celebrate.

Allow students to determine their preferred forum for sharing their finished projects. Celebrate their success. Document the process and make it available in the school library.

As no two schools are the same, a cookie-cutter approach to workshop design is neither feasible nor desirable. The intent of using workshops to implement the ESD initiative is to provide students with hands-on experience. This is made possible by using the school as the "neighbourhood" of investigation. Organizing a team of support is integral for project success. Include people with a range of skills and interests, but ensure all adult participants respect children as leaders in the discovery process. Communicate early and often about the need for child-led discovery. Consider the range of needs students may have and tailor workshops accordingly. Provide visual communication options such as drawing, mapping, PowerPoint, photography or film. Challenge proficient young writers to engage their community with a newsletter, flyer or magazine. Understand that designing participatory workshops requires planning ahead of time to support students in their discovery. At the same time, facilitators should have the flexibility to enable workshops to move forward without a pre-determined result.

It is important to provide opportunities for students to evaluate their own process and projects. Consider scheduling a mini-presentation at the mid-point of the workshops to give students a chance to provide suggestions to each other. Provide students with an opportunity for self and peer-assessment following the workshops. Keep in mind that individual students perceive their schools differently. Enable a forum where alternate views can be respected and shared. It is important to provide students with the opportunity to evaluate the strengths, weaknesses and opportunities within their school environment. Going forward, use student projects to evaluate the long-term changes in school sustainability. This documentation should be located in the school library and be accessible to the whole school community. It could take the form of a scrap book, binder or series of PowerPoint presentations. Ultimately, the school community should celebrate all "wins" in the process of improving school sustainability.



Establishing children's rights to participation in their school environment was an important component of the research. This enabled curriculum connections with social studies and framed the research within the context of citizenship. The current ESD support materials do not emphasize a hands-on approach to teaching sustainability. The connection between the right to participate and the opportunity to do so through hands-on learning is significant.

6.0

Findings

A review of literature for youth participation (approaches, methods and models) informed the participatory workshops. Shier's (2001) "Pathways to Participation" is especially useful for planning with youth in a school environment. In Shier's model, preparation to engage with young people is integral to the process. Adults are challenged to listen, to support and to take children's views into account. Along the pathway, adults are asked if policies are in place to ensure children have the opportunity to be listened to and heard as well as to participate in decision-making.

Based on my experience, I would engage educators using Shier's (2001) model in a more deliberate way before moving forward with any workshop design. A strategy to raise questions about attitudes towards democratic child and youth participation would require further development of the Pathway tool. The material would need to both engage and inspire adults to proceed with the participatory workshop process. Although I raised questions about attitudes toward youth participation in preliminary interviews, framing questions within the Pathway model would be a more deliberate strategy to ensure adult preparedness. Adult knowledge, skills and values towards youth participation would become even more significant if a whole-school approach were to be implemented.

A whole-school approach was not scalable for this research. However, it became clear both through the

literature review and my experience, working more broadly within the school would have helped build and sustain momentum for student discovery. More support (financial resources and human resources) would also be required for a whole-school approach. Support should also be present in policy and administration. A tool to determine the preparedness of an institution should be created to mirror the Shier (2001) Pathway. For example, I discovered that my method for school selection did not accurately depict school sustainability in its current context. Although the school had completed over 250 Green School projects, this programme was not part of the school when I was engaging with students. A checklist informed by the Shier (2001) model and completed by adult participants may benefit future research.

Davis (2008), along with Pramling Samuelsson and Kaga (2008) describe ESD projects that engaged at a whole-school level. Projects were student-centered and hands-on. These endeavours were supported by a philosophy of school sustainability at the institutional level. As Rode and Michelsen (2008) illustrate, the ESD initiative should be implemented at the student, institutional and national/international policy levels. The necessity for a whole-school approach was supported in my research findings. Without the broader support of multiple teachers and administration, students struggled to see their ideas come to fruition. Participatory workshops may be run by individual teachers and accommodate a range of investigations. However, linkages and communications between these projects would significantly improve the "buzz" and momentum to carry projects forward. Support should also come in the form of policy and administrative leadership.

Repetition is a significant part of teaching. In order for children and youth to absorb school sustainability, they should encounter projects in all grades in a range of subject areas. Projects should be hands-on and

applied to the daily lives of students. A policy for "litter-less lunches" or monitoring water and electricity usage are two opportunities that emerged from the literature review (Davies, 2008). School gardens and greening are popular in literature for environmental education, but do not consider cold climate issues. Without the opportunity to participate in an active growing season, students loose-out on a significant component of growing and greening programs. This was evident in my research when I interviewed students about the Greening Project. Few students understood or related to the project.

I did observe effective use of a school-wide theme at the participant school. The theme ("Keep Your Cool") was reinforced daily and rewarded with prizes and recognition for students. A prominent billboard celebrated the theme. "Keep Your Cool" emphasized patience and considerate behaviours. In research interviews, two students suggested using the school-wide theme to promote sustainability. If components of sustainability (social, environmental and economic) were taken on as a school-wide theme and consistently reinforced, the ESD initiative may be integrated more successfully in Manitoba schools.

Interdisciplinary partnership can provide much needed support for teachers, great experiences for children and rewarding learning opportunities for post-secondary students. Shulman and Armitage (2005) describe an interdisciplinary case study with "Project Discovery." They suggest that support for teachers can help students meet and exceed expected standards (p.382). The "teacher scholar" framework described in Project Discovery informed my approach to working with a school partner. Based on follow-up interviews in my research, interdisciplinary partnership was successful. The participant teacher was willing to try both partnership and workshops again. Para-educators came to value planners as partners in education. I was enthusiastically asked to return. Students responded well to the opportunity to learn

in a hands-on way with an unconventional educator. I, in turn, gained important insight into some of the challenges and issues for school sustainability from a group of experts. Opportunities for interdisciplinary partnership may have potential at the grass-roots level. Teachers and planners may be able to establish partnerships based on acquaintance, word-of-mouth or conferences. To this end, I will be presenting my research in an interactive training workshop to educators in May, 2009 at "The Reggio Inspired Care & Education Conference."

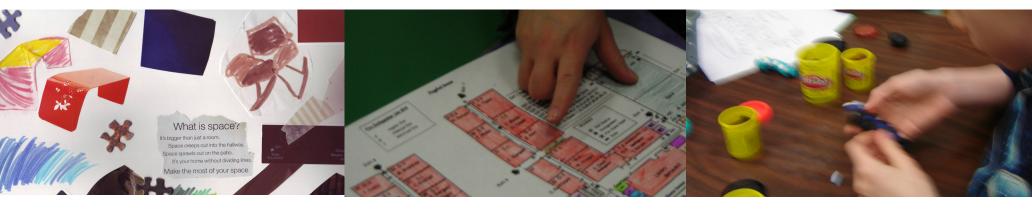
The timely nature of this exploration resulted in a need to continue reading and reviewing literature throughout the process of research. For example, Creech, Roy and Buckler (2008) released a preliminary exploration of implementing the ESD initiative in Manitoba after I had completed the workshop process with students. They identify a lack of policy for ESD implementation in k-12 schools. Comparing university sustainability policies to k-12 examples, they found the latter to be lacking significantly. Recommendations include establishing the school "as a laboratory" where students are actively involved in assessing and monitoring the use of resources (pg.9). This is consistent with the workshop approach I implemented for this research.

The report also states community connections and the role of good citizenship are important factors for a school sustainability program. Hands-on learning opportunities are emphasized as a critical component for success (2008, pg.10). They identify the importance of the "whole-school" approach, independent certification and awards programs and individual policy development by school districts (pg.11). Creech, Roy and Buckler (2008) state that "out of 39 school divisions in Manitoba, less than a third have published online those policies that deal with environmental issues – and only four have a more holistic policy

that encompasses long-term environmental goals through both curriculum and facilities management" (pg.20). They suggest that a comprehensive directory of ESD activities in Manitoba will be released in 2008.

Five barriers to implementing the ESD initiative were identified by Creech, Roy and Buckler (2008). They include: "non-acceptance" for sustainability as a principle for operations, "lack of designated staff, administrative mandate or process; time constrains on staff; financial cost; and high level of technical competencies needed for school operations" (pp. 21-22). My exploration of implementation of the ESD initiative with one class in a Manitoba school was consistent with their recommendations and observations. In addition, I suggest that a knowledgeable approach to the principles of child and youth participation is necessary and is not sufficiently emphasized in their report. In addition, strategies to support and train educators (through interdisciplinary partnership or other means) is another gap in their study.

Literature regarding the international implementation of the ESD initiative was also emerging as I worked with students (see Eames, Cowie & Bolstad, 2008; Davies, 2008; Kennelly, Taylor & Jenkins, 2008; Rode & Michelsen, 2008; Burnett, 2008). As explorations and findings emerged, several factors become clear. Effective implementation must occur at three levels: student, institution and policy. At the student level, the ESD should provide opportunities for hands-on discovery based learning. Discovery learning can be enhanced by interdisciplinary support. Institutionally, a whole-school approach is the best way to approach the ESD initiative. Although a number of different projects may be going on, a shared institutional philosophy helps students see their efforts have impact. National and international policies



are absolutely required to create resources and support for institutions, teachers and students.

The emergent literature reflects the core values and principles of this research. Participatory, handson experiences are consistently emphasized as an important way to engage students in exploration of
sustainability. Examples of grass-roots student-centered projects illustrate the importance of individual
knowledge, skills and values when teaching sustainability. Projects that allow the school to become
the focus of sustainability investigations (as the workshops did) are also emphasized as an important
approach for implementing the ESD initiative. Teacher support, through interdisciplinary partnerships
and training, along with a whole-school approach at the institutional level is also necessary. Emergent
research makes the case for national and international policies to provide resources that enable a "wholeschool" approach. Based on an analysis of my research and the literature review, participatory workshops
have real potential for ESD implementation in Manitoba schools.

6.1 Revisiting the research questions

Three main questions guided this thesis exploration. They address some of the tools required to implement the ESD initiative using participatory workshops in school classrooms. They guided the exploration of how and why that approach is valuable for sustainable community development. Fundamentally, the questions explore the possible connections between children's participation, school sustainability and the possible opportunities for planners and educators to work collaboratively. Revisiting the questions in this concluding chapter emphasizes this research as an ongoing process of exploration.

1. What knowledge, skills and values do planners require when working with children?

Knowledge

Planners need to understand a range of community engagement tools to work successfully with children. Knowledge of curricular themes that relate to planning are useful when partnering with educators. Citizen participation is the core theme of the grade six curriculum in Manitoba and provided an excellent place to begin working with children. However, connections can be made at all grade levels. For example, community is a core theme of grade one and structures and materials is an important theme in grade three. Curricular connections support teachers in the process of teaching sustainability and enable planners to build planning literacy with young people. Interviewing interested partners in education can help establish interdisciplinary opportunities. Partnership is a necessary factor when planning to engage with school children. Asset and opportunity mapping with a school community is an important starting point for assessing school sustainability. This process can help determine the strengths, vision goals and next steps in creating more sustainable schools. Participants of all ages can identify what they like and wish to improve in their community. Reviewing policies, like the ESD initiative, can also help to provide interdisciplinary opportunities.

Skills

Listening cannot be underestimated as an integral skill for working with children. Children commit to participation more fully when they feel they have been listened to and that their opinions have been heard. This is supported by the number of students (21/26) who volunteered to be interviewed following the participatory workshops in contrast to the 10/26 in preliminary interviews. Flexibility is the second

most important skill when working with children. Discovery of community assets and opportunities may take the workshops in a direction that is unpredictable. Accommodating discovery is more powerful than insisting on a didactic course of action. Creativity is definitely an asset when engaging child participants. The ability to take information and present it in an engaging manner is a very valuable skill. Helping children develop a creative presentation for their own information is also important.

Values

Ultimately, planners working with children must value them as equal partners in the participatory process. It is integral that planners support children's right to analyze and shape environments that affect them. Children's full participation in the planning, design and development of spaces for children is the only approach for truly sustainable community development. This is underscored by valuing children as citizens today, not future citizens.

Planners should value education as a tool for sustainable development. Schools are part of community infrastructure. Safe active transportation options should be provided for neighbourhoods. Educational institutions should be imaged as buildings that teach. Children and youth should be able to observe and explore their schools as living "labs" to examine sustainable systems and behaviors. Schools should offer children and youth the opportunity to evaluate school sustainability and monitor it in a long-term manner. In the process of planning new schools, addressing expansion or redesign existing schools, planners should collaborate with the school community. This includes engagement with children, parents, teachers, administration and neighbours.

Mentorship and volunteering can benefit both planners and children. Mutual knowledge sharing is a valuable tool for sustainable development. Planners should understand the value of learning while teaching one another.

2. How can participatory planning workshops be used as a tool for assessing and enhancing school sustainability?

Workshops are a hands-on planning tool to engage all members of a school community. Designed with a range of skills and abilities in mind, participatory planning workshops value the multiple languages of children: verbal, visual, tactile, and physical. Educators can implement planning workshops without the presence of a planner if some facilitation training and resources are provided. The results of the workshops could be implemented over the course of the school year enabling a sustained implementation of the ESD. A whole school approach has great potential for enhancing school sustainability based on assets and opportunities identified by the school community. The workshops were very successful in providing learning opportunities for students with special needs. The range of self-directed projects enabled total integration while children worked at their own learning levels.

a) What are the potential barriers to children's participation in a school environment?

Adultism, the process of adults taking control over children's projects, is always a potential barrier for children's participation. Other barriers include top-down policies that ignore the importance of children's participation in the creation of sustainable learning environments. Projects that appear to consult children, but only do so in a token way are another barrier for participation.

b) What do students discover about sustainable development in this process?

To para-phrase one student, kids learn that looking at the tiniest things can reveal the biggest problems. By giving students tools to assess the opportunities and assets of their own school environment and express their opinions and ideas about how to make change, children learn to think critically about their every-day environment. Students learn that making change begins with identifying issues and concerns. When contextualized in the planning workshops, students are challenged to imagine simple, cost-effective solutions that can be realized within their school. Students realize their role as active citizens in a sustainable school. Through the public sharing of information with their community students discover their ability to share their findings and become local experts. Unfortunately, students also learn that they require adult support to carry their projects forward. Without a whole school approach, this is difficult to achieve. It emphasizes the ESD initiative must occur at the student, institutional and policy levels in order to be completely successful.

3. How can young people's participation be integrated into the planning, design and maintenance of their schools?

Child and youth engagement must continue to develop from an emergent best practice to a mandated best practice. This will take time and continued investment from committed planning practitioners.

Ultimately, as schools are redefined as multi-use community hubs as identified in the literature review, the voices of many stakeholders will shape the visioning process for these new facilities. In order to truly be realized as sustainable community development, children and youth must be engaged to participate equally. I have no doubt this will happen. I have no doubt it will take a long time.

a)What are the potential benefits of child participation when planning, designing, building, maintaining and sustaining school environments?

Education for Sustainable Development will only be successful when schools become models of sustainability: social, environmental and economic. The literature review illustrates that this can only be realized through an approach that engages at three levels: student, institutional and policy. When children have the opportunity to discover those "tiny things" that make a big difference, they become more invested in committing to making change. They bring this knowledge home to their families and personalize the process to continue to make change in their own lives. Active and responsible citizenship is a direct benefit of child participation.

6.2 Lessons for planners

Approximately one month after the children had graduated from grade six, I was working on my thesis at home. My phone rang. It was one of the grade six participants. She remembered the story I told at the beginning of the participatory workshops about the way development can happen in a neighbourhood without engaging people in an active way. The child had identified a yellow sign for a public meeting about a proposed development on her street. She was wondering how she could participate in the process. I walked her through a few of the steps and provided her with a few more tips and tools. Based on the parameters of my ethics review, I could not follow up with her to see how her summer project went. I haven't heard from her again. But I certainly hope that the planner she called had some of the knowledge, skills and values that are necessary to understand the amazing quality of her desire to participate.

Community engagement in planning processes is an integral component of sustainable development.

To achieve sustainable development goals planners must develop appropriate knowledge, skills

and values to work with young citizens as equal participants. Children are stakeholders in all future development. At the same time, teachers have been tasked with the significant job of implementing the *Education for Sustainable Development* initiative. The opportunity for a logical partnership is clear. In the process of engaging children in inquiry driven planning workshops, planners have the chance to make connections with young citizens. Planning workshops offer teachers an opportunity to implement the ESD initiative through student generated discovery in a creative and exciting way. This approach requires interdisciplinary partnership and relationship development across professional silos. To successfully integrate planning workshops into classroom environments, both planners and educators must be willing to learn while teaching one another.

The workshops used the school environment as the "neighbourhood" of investigation. This approach is a practical way to engage students. As school infrastructure deteriorates, or fails to meet Provincial requirements for Universal Design, there are real possibilities to engage whole-school communities in sustainable facility planning. In the near future, schools will face very real issues of sustainability with regard to student transportation, energy consumption, waste management and universal design that requires equal access for all people be provided. As identified in the literature review, sustainable schools are in the process of being re-imagined as multi-use community facilities that serve multi-publics. Planning, designing, renovating and building schools that meet this new vision for sustainability will require sensitive and effective community engagement. The Council for Education and Facility Planners International suggests that:

The most successful schools of the future will be integrated learning communities that accommodate the needs of parents, seniors and students. These school facilities will incorporate

health, fitness, and recreation and should offer evening classes and university sponsored programs (Meyers and Robertson, 2004, pg. 3-2).

In the planning workshops, students discovered the goals identified by CEFPI using their own discovery and experience. Children wanted schools that were engaging social places that offered more opportunities for health, fitness and recreation. Students wanted greener, plant-filled spaces that were bright and comfortable. They wanted places to gather, relax, read and socialize. The children wanted better places to learn in a facility that thoughtfully responded to environmental issues. They wanted a better quality of personal space for learning and more interesting public spaces for gathering. The children were very successful at defining goals for a sustainable school that were practical and attainable.

To develop sustainable and relevant community multi-use facilities, many user groups must be involved in an engagement process – especially children and youth. Developing planning workshops for this purpose is a practical hands-on tool that emphasizes local knowledge and experience. Participatory workshops are a useful strategy for bringing people together to share ideas. Children should be at the centre of public engagement processes for sustainable development. However, children are often left out of planning and design because adults assume they cannot participate equally. Planning workshops reveal that students are very capable of identifying important issues and making realistic suggestions to try to solve them. Children collaborate well in group planning tasks and are results oriented in their thinking. Children, like most citizens, like to see how their participation will contribute to an environmental change.

The workshop method could be used in a planning process with schools set to undergo a range of capital projects including renovation or expansion. Ideally, schools in the process of trying to obtain funding from

the Public School Finance Board should engage whole school communities in a planning process early and have a strategy to ensure participation in ongoing. Students at all grade levels have a natural curiosity when change is occurring near or within their environment. Proposed change to a school environment can provide a significant applied learning opportunity. Best practices in community planning suggest participation is integral to a successful process. This research emphasizes the need for children to be engaged as active participants. This is as an integral component for sustainable development. The process should go beyond narrating information to students and should communicate with them about changes in their environment. Emergent research in implementation strategies for the Education for Sustainable Development initiative emphasize the importance of supporting teachers with both material and human resources. Based on the existing literature, facilities that successfully implement the ESD initiative strive to engage stakeholders at the meso (student), micro (institutional) and macro (national policy) levels (Rode and Michelsen, 2008).

6.3 Future research directions

In future collaborations between educators and planners, a "whole school" approach should be explored. This process should begin by engaging school administration and then continue by extending the invitation to all teachers within the school. Engagement should also extend to neighbourhood parents, community members and, of course, students. Teacher buy-in is integral. It is the first step; ensuring planning workshops have the necessary support within the school community. Teachers have limited time and should be engaged with a dynamic visual presentation and clear written information. Support materials should be simple, easy to use and focused on providing links to virtual and human resources for implementation of the ESD initiative. Resources should illustrate clear curricular links at every grade level. Based on my research findings, I will continue to pursue opportunities to engage children in planning workshops for sustainable development. As the ESD initiative gains momentum in Manitoba, particularly following the November 2008 International ESD conference in Manitoba, it will be important to examine the role planners take in collaborating with educators and students. As this research drew to a close, Manitoba school divisions were already more actively promoting and supporting implementation of the ESD initiative. The first Manitoba Education Citizenship and Youth ESD initiative newsletter was published online in June 2008 and represented an important macro level engagement with front line educators in the province. Opportunities for taking the next steps of this research will no doubt continue to emerge, illustrating the timely nature of this investigation.

Continuing to explore the role of schools as community infrastructure is another significant research opportunity for planners. Multi-service buildings that accommodate intergenerational activities have been identified as the future of sustainable educational facilities (Meyers & Robertson, 2004). Exploring the effects of aging school infrastructure on community sustainability is another important area for future explorations. In addition, tracking community engagement processes of newly planned, renovated or designed schools in Canada is an important trend to document and analyze.

Participatory planning workshops have the potential to develop into an important tool for educators and planners. My research illustrates that they can be an effective strategy for implementing the ESD initiative, even with limited funding and support. Participatory planning workshops enable students to develop their skills for environmental observation and assessment. The workshops were designed to meet the needs of multiple curriculum outcomes for social studies and language arts but were also

highly successful at providing applied opportunities for participatory democracy, public speaking, group collaboration, and a range of technology learning outcomes. Workshop facilitation does require preparation and training. Developing an interdisciplinary seminar strategy to cross-train teachers and planners is part of the on-going process of developing the best practices reflected in this study. Youth participation is integral for sustainable development. Engaging young citizens requires that planners develop the knowledge skills and values necessary to achieve this. Inquiry-based planning workshops help young people feel empowered to effect change based on their own discoveries about the school environment. Having experienced this process with young people, I cannot imagine planning in any other way.

Kids Kan participate.

Kids Kan make a difference.

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Appendix A Letter to students



Department of City Planning 201 Russell Building Winnipeg, Manitoba Canada R3T 2N2 Telephone (204) 474-9458 Fax (204) 474-7532

16 January, 2008

Dear student,

Have you ever thought about making your school a better place to learn? You are being invited to participate in workshops where YOU get to dream about ways to make your school better for you and the environment.

My name is Marcella and I am a student at the University of Manitoba in City Planning. I have been thinking about how kids can participate in planning and designing schools. Because you have been in school for six grades, I think you are an expert and would appreciate your help.

The workshops will not be extra school work; they will be a different kind of school experience. We will work together for eight weeks to develop projects about your school. We will do things that city planners and architects do when they are working on projects.

This may involve writing, drawing, photography, model construction, using computers or other cool ways to express your thinking. The workshops will be part of your social studies curriculum.

Why am I coming to your school?

My school work at University is about how kids can participate in City Planning. If you are interested in working together with me, your work will become part of my thesis research

What is a thesis?

It is a book that I will write about this project. I hope we can also write a shorter book together that could help other students plan to participate in their schools. If you

say OK, samples of your work may be used in one or both books. Some pictures may be used with your permission. The workshops will be recorded with a digital tape recorder with your permission.

You do not have to participate. If you would prefer not to participate, you teacher will provide you with other assignments. This is your choice.

It is OK to communicate that you would prefer not to participate. You can change your mind about participation at any time during the project.

You can ask questions at any time about this research. If you want more information before you agree to participate, you can ask permission from a parent or guardian to email your questions to me at umpoir24@cc.umanitoba.ca or you can call me with permission at

If you want to participate, please sign your name below. Your signature indicates that:

- 1) you have read this letter or had it read to you,
- 2) you understand the information.

Please check one or more of the following points if you AGREE with them:

- Marcella can show images of my work
- Marcella can show images of me if my parents/guardian has consented
- o Marcella can record my voice if my parents/guardian has consented
- I agree to participate
- o I understand I can stop participating without consequences

Signature of Student Date

Thank you very much for considering my request. Sincerely,

Marcella Poirier

Appendix B Letter to parent or quardian



Department of City Planning 201 Russell Building Winnipeg, Manitoba Canada R3T 2N2 Telephone (204) 474-9458 Fax (204) 474-7532

16 January, 2008

Dear Parent or Guardian,

My name is Marcella Poirier and I am a graduate student in the Department of City Planning at the University of Manitoba. In the past, I have volunteered as a storyteller and puppeteer at Princess Margaret School and chose to return for my graduate research because of the excellent experience I had with students, staff and parents at your child's school.

I have designed an eight-week workshop to work with students in grade six to plan and design their school environment to make it a more sustainable place to learn (healthier, better for the environment, better for students). The workshops connect to the grade six social studies curriculum and the Manitoba Government Manitoba Environmental for Sustainable Development initiative.

I would appreciate your permission for your child to participate in these workshops that will be conducted in his/her classroom.

Students will be investigating ways in which the school could be more environmentally sustainable. Students will be asked to communicate their projects to their whole school community. The workshops are an interdisciplinary tool for educators and planners to develop new approaches to teaching sustainability to young people while creating a process of participation. Grade six students may interact and communicate with other students in an effort to generate interest in their projects. I would like you to allow for the participation of

your child in that process.

Your child's participation in this research project will help in the evaluation of the workshop as a teaching tool. The goal of the research to create a participatory, student-centered learning experience that connects the *Manitoba Education for Sustainable Development* initiative to the Manitoba curriculum in an interactive and interdisciplinary way.

You are in no way obligated to provide permission for you child to participate. Your child will not be penalized in any way for opting out of the workshops and will be provided other work by their teacher if he/she does not participate.

This research does not seek to obtain personal information from children. The intent is a school evaluation as a teaching tool. However, should a child reveal a situation of abuse to the researcher, she will communicate this information immediately to the participant teacher and the school principal who will be responsible for due diligence in the matter.

If you have any questions about this project, please contact Marcella Poirier, the principal researcher, at phone/fax), or e-mail <u>umpoir24@cc.umanitoba.ca</u>.

For more information about the evaluation of this research by the Joint Faculty Research Ethics Board of the University of Manitoba, please contact Margaret Bowman, Human Ethics Coordinator, at 208 - 194 Dafoe Road (CTC Building), or by e-mail to or by fax to 269-7173.

Thank you for considering my request for your child's participation in the in-class workshop series. Please sign this form and return it to Princess Margaret School.

Sincerery,	
Marcella Poirier	
Signature of parent/guardian	Date

Appendix C Consent form for adult participants



Department of City Planning 201 Russell Building Winnipeg, Manitoba Canada R3T 2N2 Telephone (204) 474-9458 Fax (204) 474-7532

Consent Form for Adult Participants

Research Project Title: We Did It!: A Participatory Workshop Tool for

Improving School Sustainability

Researcher: Marcella Poirier **Supervisor:** Dr. Sheri Blake

Committee Members: Dr. Rae Bridgman and Dr. Gary Babiuk

Sponsor (if applicable): Manitoba Graduate Scholarship

This consent form, a copy of which will be left with you for your records and reference, is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information.

Description of the project:

This project is the research component of the Master of City Planning thesis. The student researcher is interested in how participatory planning with young people can support environmental literacy. Participants will include students in grade six as well as school board members, administrators, teachers and parent council. The intent is to provide students with support to create projects designed to improve the environmental sustainability of their schools.

Communication of research:

The research work will be communicated in a variety of ways. The student will produce a Master of City Planning Thesis to be submitted to the Faculty of Graduate Studies at the University of Manitoba. This thesis will be also made available online through the University of Manitoba Electronic Thesis Project and via microfilm through National Library of Canada. The student will be required to present this research at a public presentation and also at an oral thesis defense University of Manitoba. It is possible that some of this research might also be presented at Canadian or International Planning Conferences. A short document will be produced with contributions of pictures and writing from students, teachers and the researcher. This booklet will be designed as a teaching tool for students and teachers interested in strategies to implement the *Education for Sustainable Development* initiative in Manitoba schools. A copy of both the thesis document as well as the workshop document produced with students will be donated to the participant school library. An open invitation to the thesis presentation will be provided to the school through posters. You will also receive notification in the mail of the thesis presentation date and location should you wish to attend.

Specific activities to be completed by project participant:

Students will participate in group activities that may include: brainstorming, writing, taking photographs, creating models, doing research in the library or internet and participating in discussions about improving the environmental sustainability of the school. Student researchers may choose to promote their projects by contacting local media or government officials.

Adults will be asked to participate in interviews that will be audio-recorded with permission.

Audio-Taping, use of Data, secure storage and destruction of research data:

The interviews and workshops will be taped on a digital recorder and will be transcribed. Such audio-recordings will be kept in a secure place, and destroyed after thesis has been accepted. Your name or any other personal information will not be included in any publicly disseminated materials arising from the study. Where information occurs within a session transcript that will be included in the final project report, names and other personal information will be omitted, unless such permission has been explicitly granted.

Your signature on this form indicates that you have understood to your satisfaction the information regarding participation in this research project and agree to participate in the project. In no way does this waive your legal rights nor release the researcher, sponsor, or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time, and/or refrain from answering any questions you prefer to omit, without prejudice or consequence. Your continued participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation.

CONTACT INFORMATION:

Researcher: Marcella Poirier, Master of City Planning Student, Department of City Planning, Faculty of Architecture, University of Manitoba, 201 Russell Bldg., Winnipeg, MB, R3T 2N2; Email: umpoir24@

cc.umanitoba.ca

Advisor: Dr. Sheri Blake, Associate Professor, Department of City Planning, Faculty of Architecture, University of Manitoba, 201 Russell Bldg., Winnipeg, MB, R3T 2N2, Telephone: (204)474-6426; Fax: 474-7532; Email: blakes@cc.umanitoba.ca

This research project has been approved by the Joint Faculty Research Ethics Board (JFREB) of the University of Manitoba. If you have any concerns or complaints about this project you may contact the above-named persons or the Human Ethics Secretariat at 474-7122, or e-mail margaret_bowman@ umanitoba.ca. A copy of this consent form has been given to you to keep for your records and reference.

Thank you for participating in this project. Your cooperation and insights are very valuable, and are greatly appreciated.

I, consent to the		
[Name of Participant: please print]		
dissemination of material provided to the Student Researcher in all methods of research communication, including presentations, papers and the Master of City Planning thesis document. I understand that the information I have provided will be incorporated in presentations and reports in a fashion that does not		
Signature of Participant	Date	
Name of the Researcher: Marcella Poirier		
Signature of the Researcher	Date	

Appendix D Letter to the Superintendent of Schools

Barb Isaak Asst. Superintendent of Schools River East Transcona School Division 589 Roch St. R2K 2P7

02 January, 2008

Dear Ms. Isaak,

I am writing to you to formally request permission of the River East Transcona School Division to conduct my Master's practicum in City Planning in a grade six classroom at Princess Margaret School. I have been engaged in the process of planning, writing and obtaining permissions for this project since July 2007 and have recently passed the Joint Faculty Research Ethics Board protocol at the University of Manitoba. I am a recipient of a Manitoba Graduate Scholarship, a Corigill Scholarship, an UMSU scholarship and the E.H. Price Scholarship for my studies and research from September 2006 to present.

The enclosed material describes my research in detail. I have proposed eight weeks of classroom workshops based on the Manitoba *Education for Sustainable Development* initiative which emphasizes the integration of sustainability into all subject areas in the K-12 curriculum. I have also proposed 7-8 short interviews to prepare for the workshops. I would appreciate your insight if you have time to provide an interview for the project. All participants will receive questions in advance of the interview.

This practicum involves a collaboration of planning and education to help students explore the broad issue of "sustainability" in the context of their own school environment. As a facilitator, my role will be to plan workshops, provide resources, examples, guidance and assistance to students and encourage them to determine projects of their own interest. In the planning and design of this practicum, connections to the grade six curriculum in social studies and language arts were researched. Key themes are participation and citizenship which are integral to both planning and education.

Principal Ken Renaud and grade six teacher Ms. Zedenka Kinnear have both expressed interest in hosting the practicum at Princess Margaret School.

Thank you for considering my request. I look forward to hearing from you.

Sincerely, Marcella Poirier

Graduate Student
University of Manitoba
Faculty of Architecture
Department of City Planning

We Did It!: Participatory Planning with the Princess Margaret School Community

A project proposal



Marcella Poirier. University of Manitoba. Faculty of Architecture. Department of City Planning. September 20, 2007.

The Practicum

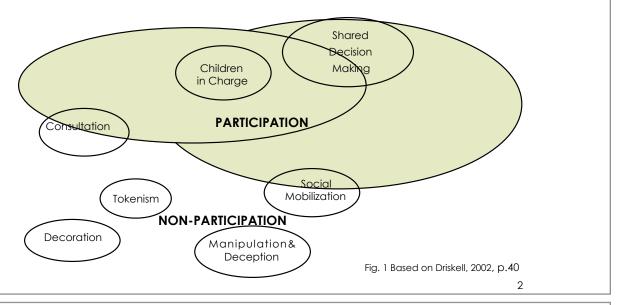
City planning is inherently about understanding the multiple ways that people live in their environment. Investigating what makes places special and studying how cities work are both aspects of the profession. There has been considerable research done on the practice of participation in planning and the benefits of involving multiple stakeholders at every stage of design and development of a project. Following the 1989 UN Declaration on the Rights of The Child, the importance of planning with children and young people has gained momentum within the discipline.

When planning with young people, adults should be prepared to act as listeners, scribes and observers in service to the learning process. Ultimately, young people must have the opportunity to lead. Several models for evaluating levels of participation exist. Most are derived from Roger Hart's influential ladder of participation developed in 1997. The ladder has eight levels which are expressed in a hierarchy. In Creating Better Cities With Children and Youth, seven of these participatory levels are expressed as bubbles. This more efficiently illustrates, in reality, participation is a more fluid concept. It does not always follow a direct path of ascendancy. It does convey that Shared Decision Making, Children in Charge, Consultation and Social mobilization are all aspects of a participatory model (Driskell, 2002, p.40).

According to Driskell, "Real participation provides both power and interaction" (p.40). Many well-meaning projects endeavor to involve young people, but fail to be truly participatory in their approach.

This practicum will involve both adults and young people. As the research is located within a primary school, learning outcomes based on curricular expectations will be a necessity. Currently, there is an emphasis on integrating the Manitoba Education for Sustainable Development (ESD) initiative into K-12 curricular programming.

This program will take an interdisciplinary approach between planning and education and work with students to plan improvements to their school. Together, administrators, educators, students, parents and myself will collaboratively work towards a classroom model where children can participate in assessing, planning and improving the environmental sustainability of their own schools.



The Environment

Issues of environmental sustainability can be overwhelming for any person to think about.

Considering the vast nature of the issue, it can be difficult to think of how individual efforts can make a difference to the problems we face both locally and globally. This practicum proposes a series of workshops working with students to create change in their own school environments. Students are experts about school environments because they spend so much of their young lives there. Throughout this practicum, students will be asked to use their knowledge and skills to take a project from observation, through analysis to suggesting and/or implementing an action for change.

The importance of democracy in participation by people of all ages is well articulated by Rae Bridgman. She reminds us that: "young people are not future citizens - they are active citizens here and now" (2002, p. 180).

Through the process of planning a more sustainable environment for their school, students will experience a number of learning opportunities. The role of young people as learners in the participation model will often involve programming designed by adults, but they shares leadership of projects with youth (Bridgman, 2004, p. 194). Civic engagement, global citizenship and youth leadership are common goals of the learning model for participation.

The worth of education must now be measured against the standards of decency and human survival - the issues now looming so large before us in the twentyfirst century. It is not education. but education of a certain kind, that will save us. (Orr, 1994, p.8)

The Process

Students will have the opportunity to direct the theme of the projects they wish to investigate. Within the context of the curricular unit the workshops are integrated with, students will brainstorm ideas they wish to pursue to improve the environmental sustainability of their own school.

In a school there are many possibilities for environmental amelioration that students may wish to investigate and improve. These may include recycling, composting, transportation, energy consumption, healthy foods, play spaces or other elements.

There are many ways students may wish to express the solutions they imagine. Model construction, mapmaking, poster design, web sites or student newspapers are just a few of the many possibilities. Students may choose to design surveys, conduct interviews or display their work to help create the changes they imagine. The goal will be to foster an atmosphere for environmental education that is "collaborative, creative and exploratory" (Pace-Marshall, 2006, p.72). The process will occur in three phases:

- Assess and Express
- Explore and Discover
- Make it Happen.

In this process, the journey to discovery will be led in large part by the youth themselves. Participants will be asked to assess their own work and report on what they have learned. Following the collaborative assessment model of Anne Davies et al., students will be active participants in the continuum of learning.







4

Next Steps

This practicum will require approval from the Joint Research Ethics Board (JFREB) which will take some time to achieve. Any information gathered prior to acceptance from JFREB cannot be used in the research document. Considering this limitation, pre-planning will be limited to conversations with administrators and teachers in order to schedule the participatory planning workshops at an appropriate curricular time. The length of the workshop series can

Following approval from JFREB, a school community meeting should be held to discuss the research and demystify any of the intentions of the project. Focus group sessions can also be scheduled with parent council members, teachers or administrators. Approv-

be determined in pre-planning.

al from the school board must be granted in order to proceed with the practicum.

Proposed time-line

- Pre-planning with teachers & administrators
- Approval from JREB by November, 2007
- School community meeting December, 2007
- Workshops begin second term 2008
- Students determine how to display projects.

Several opportunities exist for students to showcase their work. These include The Council of Educational Facility Planners International (CEFPI) Student School Design competition, Plan Your Winnipeg, or the Manitoba Education for Sustainable Development Grant for the 2008/2009 year.

Mind shaping is world shaping.

(Stephanie Pace-Marshall, 2007, p. xiii)

Telling Stories

I became a planner because I believe in the integral power of people to create change in their own environments. I believe that people have a right not only to be informed about what is happening in their communities and cities, but should have the opportunity to actively shape outcomes. For me, planning with young people was a natural place to start. I have volunteered as a storyteller and puppeteer in many schools, some as far away as rural Turkey. My experiences consistently reflect the tremendous ways in which young people view the world and their place within it.

The importance of hearing the stories of young people should never be under-estimated. Participation in planning is an experience in communication and expression of ideas. As planning literacy is built, students will gain new tools for self-

expression. This rich process will satisfy learning outcomes in an experiential way as students bring knowledge into action.

I sincerely hope this collaboration comes to fruition and look forward to a participatory planning experience with the Princess Margaret School Community.



6

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world changing takes lots of people



3

2

















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Appendix G Transcribed collaborative analysis of digital pictures used for classroom posters

Summary of Group Picture Analysis:

Our pictures communicate a story about our school environment. Every photographer took at least one picture of a helpful person. We think that is a strength of our school. We like the kids in our school community. We noticed this school has won awards. Two were for helping the environment.

We think the walls and halls are too plain. We don't like messy boot areas. There is not enough shelf space for boots. We don't understand why a bookshelf in the hall is empty all the time. We would like to see more signs of the school theme and more colour. The signs above the water fountains could be improved. They should not be just a white piece of paper.

We analyzed our pictures and discovered that we need more comfortable places to read. We also need more space to read. The reading chair outside the front office was a good idea. We like the blue library carpet. We like the light in the library. The tables are not comfy places to read. We like the computer lab. We would like more time in the computer lab. We would like more help to find information.

Our school only recycles paper.

One teacher has decided she will recycle the cans in the school. We are interested in how much garbage at this school could be recycled.

We would like all bathroom stalls to lock properly, be clean and have no graffiti.

Appendix H
Pre-workshop
semi-strucutred interview
questions for students

Project: We Did It: A Participatory Workshop Tool for Improving School Sustainability.

Researcher: Marcella Poirier

University of Manitoba Faculty of Architecture Department of City Planning

1. Can you tell me how long you have been a student at Princess Margaret School?

2. What is your role as a grade six student in the Princess Margaret community?

3. How do you think students can take a lead in creating environmental change in this school?

4. How can adults help students?

5. What environmental projects have happened at Princess Margaret? How were they good?

6. Do you have any suggestions for workshops we will be starting soon in your class?

7. Do you have any questions about what we will be doing or why?

Pre-workshop interview questions for adults Interviewer: Marcella Poirier

> Graduate student University of Manitoba Faculty of Architecture Department of City Planning

- 1. Can you tell me a little about your role within the school and how long you have been involved here?
- 2. How do you think students can take a lead in creating environmental change in this school?
- 3. How can students be supported by adults in this process?
- 4. What projects for sustainability has the school undertaken? How were they successful? How did children participate in the process?
- 5. Do you have any suggestions for the participatory workshop series?

6. How would you suggest handling parental consent forms to and from parents?

Appendix J
Post-workshop
semi-structured interview
questions for students

Post-workshop semi-structured interview questions for the students

Interviewer: Marcella Poirier Graduate student

University of Manitoba Faculty of Architecture

Department of City Planning

1. How are you doing? We're going to start today by looking at a poster. Have you seen it before? Where? What do you think it means? What is your favourite image? Why?

Communicating a message is a hard task – but you just finished doing that with your project.

- 2. How are you feeling about your project now?
- 3. What did you enjoy most about participating? Why?
- 4. What did you enjoy the least? (Why?)
- 5. How do you think your project could keep on going?
- 6. How do you think kids can make their school more sustainable?
- 7. Would you be willing to try this again? If so, why? (What are the opportunities?)
- 8. What did you do for Earth Day?

Thank – you!

Appendix K Post-workshop semi-structured interview questions for para-educators Post-workshop semi-structured interview questions for para-educators

Interviewer: Marcella Poirier
Graduate student
University of Manitoba
Faculty of Architecture
Department of City Planning

- 1. How are you feeling about the workshops now?
- 2. Based on your observations, what do you think students enjoyed most about the workshops? Why?
- 3. What did you enjoy the least? (Why?)
- 4. Can you describe how the students you work with (students with special needs) were enabled to participate in the project? What worked best for them?
- 5. How can student projects be carried forward?
- 6. How can students participate in making schools more sustainable?
- 7. In your opinion, how can a person coming to work with kids ensure all students are included?
- 8. Can you describe a significant moment during the workshops? (Did you observe anything special?)
- 9. Would you be willing to try this again? If so, why? (What are the opportunities?)

Thank – you!

Appendix L
Post-workshop
semi-structured interview
questions for teachers

Post-workshop semi-structured interview questions for the teacher

Interviewer: Marcella Poirier

Graduate student

University of Manitoba

Faculty of Architecture

Department of City Planning

- 1. How are you feeling about the workshops now?
- 2. What supports do you think are necessary for students to see their project taken to the next level?
- 3. How could that occur in this school?
- 4. Are there people who could help? If so, who?
- 5. Can you describe some of the learning outcomes you observed during this project?
- 6. Can you describe a significant moment for you during the project? (Did you observe anything special?)
- 7. In your opinion, what elements worked best for your student?
- 8. What elements worked best for you?
- 9. What elements would you like to see improved or changed?
- 10. What do you think needs to happen for teachers and planners to work together in the future?
- 11. Would you be willing to try this again? If so, why? (What are the opportunities?)
- 12. What tools would you like to use to integrate sustainability into your teaching?

Thank – you!

Workshop Planning Schedule Timeline

Week One Introduce project (seek assent and consent if necessary)

(Interviews may follow)

Week Two Assess and Express: photography workshop

Week Three Assess and Express: photography workshop (picture analysis and brainstorming)

Week Four Explore and Discover: mapping, collage, research and thinking

Week Five Explore and Discover: research, interviews, project boards, posters, writing, script

development, model and project planning

What are the root causes?

Week Six Explore and Discover: project planning and development continues

What is the message of your project?

Why is it important for your school community?

What would need to happen to make your vision a reality?

Week Seven Explore and Discover: project planning and development continues

Week Eight Make it Happen: filming, design worm bin, plan display case, and continue to work on

projects to engage the school community

Week Nine Make it Happen: work towards project completion and plan an engagement for the school

community

Week Ten Make it Happen: School Environment Fair and class celebration

Collaborative assessment

Week Eleven Interviews and debrief

Appendix N Ethics approval certificate



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OFFICE OF RESEARCH SERVICES Office of the Vice-President (Research) CTC Building 208 - 194 Dafoe Road Winnipeg, MB R3T 2N2 Fax (204) 269-7173 www.umanitoba.ca/research

APPROVAL CERTIFICATE

19 December 2007

TO:

Marcella Poirier
Principal Investigator

(Advisor S. Blake)

FROM:

Wayne Taylor, Chair

Joint-Faculty Research Ethics Board (JFREB)

Re:

Protocol #J2007:148

"We Did It? A Participatory Workshop Tool for Improving School

Sustainability"

Please be advised that your above-referenced protocol has received human ethics approval by the **Joint-Faculty Research Ethics Board**, which is organized and operates according to the Tri-Council Policy Statement. This approval is valid for one year only.

Any significant changes of the protocol and/or informed consent form should be reported to the Human Ethics Secretariat in advance of implementation of such changes.

Please note:

- if you have funds pending human ethics approval, the auditor requires that you submit a copy of this Approval Certificate to Kathryn Bartmanovich, Research Grants & Contract Services (fax 261-0325), including the Sponsor name, before your account can be opened.
- if you have received multi-year funding for this research, responsibility lies with you
 to apply for and obtain Renewal Approval at the expiry of the initial one-year approval;
 otherwise the account will be locked.

The Research Ethics Board requests a final report for your study (available at: http://umanitoba.ca/research/ors/ethics/ors_ethics_human_REB_forms_guidelines.html) in order to be in compliance with Tri-Council Guidelines.

Appendix O Master's Thesis Final Report



Name/Unit: Dr. Sheri Blake (Advisor)

Dr. Rae Bridgman (Advisory Committee member)

Prof. Gary Babiuk (Advisory Committee member)

Date: 2008

