

Benjamin Cleveland · Sarah Backhouse ·
Philippa Chandler · Ian McShane ·
Janet M. Clinton · Clare Newton *Editors*

Schools as Community Hubs

Building 'More than a School'
for Community Benefit

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Scene-setting

Renewed Aspirations for Schools as Community Hubs



Benjamin Cleveland , Ian McShane , Philippa Chandler ,
Sarah Backhouse , Ruth Aston , and Janet M. Clinton 

Abstract This book explores the expanded roles of schools, investigating how they may offer more to their communities than formal education. It also discusses what schools can gain from their communities through various forms of partnership and collaboration. We explore this ‘more than a school’ idea through past examples, in current practice, and as a model for schools into the future. Uniquely, the book investigates these issues from a spatial perspective, adopting the view that school and urban infrastructure, including buildings and landscaped outdoor areas (i.e., space), matters in the context of school-community relations. Indeed, we suggest that it mediates these relations, even though such influence is infrequently mentioned in the existing literature. Aligning our research with the spatial turn in the social sciences, we argue that research into school-community connections has tended to view such relations as fundamentally social, omitting adequate consideration of the role that space plays in enabling and/or constraining connections between school administrators, students, teachers, parents, carers, and members of the wider community. Adopting a spatial approach, a range of new perspectives are offered with respect

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to fostering stronger school-community connections through engaging thoughtfully with the built environment. The recurring themes of partnering, planning, designing, and enabling schools as community hubs are used to structure the 20 chapters that follow the initial scene-settings chapters.

Keywords Schools as community hubs · Mixed-use infrastructure precincts · Social infrastructure · Community facilities · Community schools · Learning environments

Introduction

Since schools proliferated with the rise of mass education in the late 1800s, they have played important roles within their local settings. By their nature, schools are places of significance, influencing the lives of young people, families, and community members through their physical presence and their social networks. While schools are common and well-accepted features of urban, regional, and rural landscapes today, the relations between schools and their surrounding communities have been a topic of debate, research, and development for over a century.

The suggestion that schools should act as community hubs is not new. In 1899 John Dewey promoted the school as a locus of community in the first edition of his book *The School and Society*, suggesting that schools should be considered a “genuine form of active community life, instead of a place set apart in which to learn lessons” (Dewey, 1915, p. 13).

With the advent of the single schoolhouse and later more sophisticated schooling models and facilities (Tanner & Lackney, 2006), schools have drawn people together, fostering social engagement and community cohesion. Yet, schools that actively promote the education, health, and wellbeing of not just students, but also teachers, parents, carers, and members of the wider community have been rare, and such models have not often been scaled. The historical record indicates that developing and sustaining ‘more than a school’ operations can be complicated and challenging.

This edited collection of chapters from authors in Australia, New Zealand, Canada, South Korea, the United States, and the United Kingdom has been brought together by researchers associated with an Australian Research Council (ARC) Linkage project titled *Building Connections: Schools as Community Hubs (2019–2022)*. This research involved a multi-disciplinary team of academics with backgrounds in education, urban planning, architecture, evaluation, human geography, wellbeing sciences, and educational facility planning. The team pursued insights into the opportunities and challenges associated with developing, implementing, and sustaining schools as community hubs—a broadly defined concept encompassing networks of relations between school administrators, students, teachers, parents, carers, and community members, with the buildings, landscapes, services and digital infrastructures of schools and surrounding areas. The project was supported by five state government and industry research partners from four Australian states.

Identifying renewed aspirations from state and territory governments in Australia¹ for schools to play a more influential role in local communities, the Building Connections team and collaborators investigated the socio-spatial operations of schools as community hubs. Acknowledging the spatial turn in the social sciences (Warf & Aria, 2008), the project adopted a spatial approach to gain unique perspectives on the issues that schools and associated stakeholders face when seeking to foster closer ties with local populations.

While the location of the research project in Australia foregrounds a local focus, we argue that analysis of Australia's governance, spatial and educational settings provide transferable insights into developing schools as community hubs in complex multi-sectoral settings in diverse urban and community circumstances. We suggest that readers around the world will find resonances with their school and community settings, while appreciating the particularities of place.

This introductory scene-setting section sets out the context for the book, with this first chapter introducing the main themes discussed, offering high-level insights into the pressing issues currently facing schools and associated stakeholders when developing, implementing, and sustaining schools as community hubs. Recognising the complex policy, design, and operational settings of these schools, the second chapter in this section links research and practice, synthesising and translating research undertaken in the project into a model of practice intended to guide future school planning.

Chapter authors in this book include a mix of academic researchers, government personnel, and industry practitioners. Founded on the notion that space plays a significant role in how schools and communities connect and disconnect, engage and disengage, a range of factors influencing school-community relations are discussed across the chapters, from the vantagepoint of both research and practice. The book is organised around four significant themes: partnering, planning, designing, and enabling. Collectively, these themes highlight important perspectives on how to foster the types of connections and enterprises—both formal and informal—that generate shared benefits for schools, government, industry, community groups, and individuals. These themes are introduced below.

Partnering

Collaborative partnerships are widely regarded as vital for the successful establishment of schools as community hubs (Calfee et al., 1998; Dryfoos, 2002; Hands, 2010; Walsh & Backe, 2013). Partnerships may involve interagency agreements, collaborations, or co-locations, and are commonly developed between stakeholders that may include education authorities, private education providers, service providers (such as health organisations), sporting clubs, universities, private industry, charities, and various agencies from all tiers of government. Some forms of partnership

¹ Publicly accessible schools in Australia are run by the seven state and territory governments.

are relatively common—such as arrangements between many Australian primary schools and commercial providers of outside hours school care—while others are unusual, such as agreements to share facilities between privately-funded and state-funded schools. A recurrent theme is that strong partnerships take time to develop and require trust and reciprocity between organisations that may be unaccustomed to working together.

Partnering is explored in a variety of ways in this book. Drawing on research conducted in Ontario, Canada and California, USA, Hands' chapter explores how complex social contexts can either facilitate or frustrate efforts to collaborate. Two chapters take a reflective look at attempts to establish innovative partnerships in Australia: one by Lauer et al. shares insights from a recent state government pilot program in Queensland that aimed to broker cross-sector relationships to build high-quality shared infrastructure involving schools and other service providers, while another by Brennan reflects on a period during the 1980s in Melbourne, Victoria when the Princes Hill School Park Centre was the focal point for attempting to radically engage schools, community and local government in participatory decision-making about community development initiatives. Partnerships between schools and nature are also explored in a chapter by Hron which draws on John Dewey's historic ideas about schools and life being intrinsically interrelated.

Collectively, the spatialised partnerships discussed in these chapters highlight place-based collaborations that are rooted in local communities and contexts. The importance of architects brokering partnerships and harnessing inputs from diverse stakeholders to deliver infrastructure that addresses the needs of multiple user groups is also highlighted.

Planning

Planning schools as community hubs engages two distinct planning regimes: educational planning, and social and urban planning. Educational planning focusses on the welfare and academic progress of students within schooling systems. Social and urban planning involves policy and planning decisions relating to the provision of social, environmental, and infrastructural services, as well as urban form and amenity, at neighbourhood, suburban or community level. The histories, institutional settings, and the ethos of these two regimes need to be acknowledged and reconciled for the successful design, operation, and sustainment of schools as integrated educational and community facilities. Notwithstanding the many successful examples of schools as community hubs discussed in this book, structural segregation of these two planning regimes has commonly frustrated ambitions to scale and expand such initiatives.

Further, ineffective governance structures and complicated, multi-agency resourcing arrangements tend to act as barriers to integrated planning. As Miles et al.'s chapter indicates, the assignment of responsibility for school and community facilities at different levels of government, as is the case in Australia, raises questions

about authority and coordination in planning and decision-making. The siloed organisation and operation of administrative units within government jurisdictions may be equally problematic, resulting in a lack of coordinated identification and resolution of objectives. Several chapters in this book cite examples where state-based education departments have not been actively present in local planning processes. Indeed, in some jurisdictions, public education authorities have been specifically exempted from local planning schemes. Furthermore, educational planning is commonly undertaken for communities, not with them, negating the types of participatory decision-making processes that can lead to productive school-community relations and the procurement of aligned infrastructure.

As chapters of this section explore, tensions between infrastructure that seeks to promote community access and social connectedness on the one hand, and infrastructure that prioritises the safety and security of young people on the other, are at the heart of the matter. However, complex multi-purpose and multi-sectoral institutions such as extended-use or ‘hub’ schools resist simple or singular responses. Both safety and social connection are important, as argued in chapters by Kim and Han, and Jahangiri. Productive dialogue between these rationales is needed if schools are to be equally welcoming and secure. Jahangiri argues that narrow architectural responses towards securitisation represent a failure to understand the importance of community participation in planning and design. As Ergler and Smith, and Miles et al. suggest in their chapters, prioritising a safety discourse can also diminish the agency of young people in their physical and social environments, and de-emphasise the articulation of schools, other community facilities, and the surrounding neighbourhood.

At a wider social and urban planning level, failure to view schools from both whole-of-community perspectives and facility life-cycle perspectives also brings sustainability questions to the fore. Ergler and Smith point to the impact of increasing journeys to school by car, in terms of increasing greenhouse gas emissions and concerns about the safety of active travel by walking or wheeling. Again, sound physical and social planning, in the form of traffic management strategies and investment in programs such as walking to school initiatives, can assist in breaking the negative feedback loop of car commuting.

Boys and Jeffery emphasise the significance of accommodating change and adaptive re-use in school planning and design in their chapter. Schools and other learning facilities, they argue, are key components of local planning and development activities. However, designing to narrow temporal, financial, and service criteria limits their long-term educational, social, and commercial contribution. Boys and Jeffery cite the British architect Alex Gordon’s dictum of ‘long life, loose fit, low energy’ as a planning aspiration for schools.

Throughout this section the school fence has a significant physical and symbolic presence. Jahangiri’s example of the spear-topped ‘diplomat’ fence, which communicates signals about risk and security to students and parents, points to unresolved challenges related to community entry, which may be welcomed, regulated or precluded. Boys and Jeffery neatly summarise the underlying theme of this section by arguing that the wider goal of planning for schools as community hubs should be to build bridges, not fences.

Designing

Educators, social services providers, and community planners focused on delivering education and programs may not immediately see the relevance of physical infrastructure to their work other than as a place to be and do. However, when viewed relationally, the built environment is a significant participant in people's lives and good architectural design informed by collaborative processes can enhance the social relationships at the heart of the school-community interface. Moreover, the architectural briefing process may catalyse a journey of discovery, imagining alternative futures long before a design or building exists, or programs are offered within it. Whether led by architects, educational facility planners, or both, this early process asks big and bold questions of school leaders, community stakeholders and policy makers about how things could be better.

In this section, five chapters highlight the role of participatory processes and good design in supporting school-community relations. Robinson's account of the development of Doveton College and Moeck and Branford's story of Calvary Community Hub illustrate how deeply considered spatial arrangements underpin inclusive and supportive school-community philosophies for positive social impact. Other chapters demonstrate how architectural and pedagogical philosophies can evolve and respond to urban densification (Matthews et al.) and changing community needs (Le Nepveu), and combine historical, cultural, and Indigenous narratives in community placemaking (Tordoff and Atkins). Each of these chapters demonstrate how the built environment, and the processes that create it, may exert significant agency and influence on schools as community hubs.

Enabling

In the final section of this book a range of factors associated with enabling the development, implementation, and sustainability of schools as community hubs are addressed. Extending Cleveland's earlier discussion in chapter two of a framework for planning, designing, governing and managing schools as community hubs, these chapters delve deeply into the application of a range of factors within the framework. Chandler and Backhouse discuss the importance of vision and intentionality, along with matters concerning the emotional labour needed to drive new hub projects from idea to reality. Polglase et al. then explore the challenges to hub projects presented by fragmented policy environments and go on to discuss approaches to policy analysis that may help inform how policy could be better developed and enacted in support of hub projects. Adapting the urban scholar Henri Lefebvre's ideas about the social production of space, Rivera-Yevenes proposes a research framework to investigate how schools as community hubs have been developed, implemented, and sustained, for the purpose of seeking insights into the processes, challenges and lessons that have been learned by those involved. Finally, Clinton, Paproth, and Aston co-author

three related chapters focused on the need for evaluative evidence to support decision-making about school as community hub initiatives and their ongoing operation. They highlight that schools as community hubs often target wicked problems which extend far beyond the realm of student learning, necessitating impact metrics that capture broader outcomes than just students' academic achievement, such as student and community wellbeing. The three chapters offer an evaluation framework for schools as community hubs, explore the role of evaluative thinking and its relationship to the success of hub projects, and interrogate questions about how to determine value for money. Overall, these three chapters promote evaluation as an important support vehicle for the successful implementation, improvement, and scalability of good ideas.

Conclusion

Schools are widely recognised as playing a central role in the lives of young people, families, and carers, perhaps even more so since the COVID-19 pandemic led to temporary school closures in many parts of the world.

As cities and regional areas around the world intensify and societal dynamics change, pressure on schools to become 'more than a school' appears to be increasing. Here, community hub initiatives and activities become entangled with issues associated with educational planning, social, community and urban planning, architectural design, governance, facility management, and of course funding. Exploration of the wide-ranging factors influencing school-community relations in this book highlights the importance of building school facilities to accommodate activities that foster connections and engagement and generate shared benefits for both schools and community-based stakeholders.

Should schools play a more significant role in supporting communities to thrive, exhibit resilience and become more sustainable, both socially and environmentally, by establishing closer connections with early years education, health and well-being services, sports and recreation organisations, plus other community-oriented partners? We believe so, as evidenced by the content of the chapters in this book.

On behalf of the Building Connections: Schools as Community Hubs ARC Linkage project team and partners, we hope all who read this book enjoy the insights and perspectives shared and will take actions to build better connections between schools and communities.

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A Framework for Building Schools as Community Hubs: If It Were Simpler Would It Happen Everywhere?



Benjamin Cleveland

Abstract Developing, implementing, and sustaining schools as community hubs is not necessarily easy. Nevertheless, the potential gains for students, parents, carers, and members of the wider community may be significant, as has been documented internationally. Drawing on information from a range of research activities, this chapter outlines the process undertaken by a multi-disciplinary research team to create a framework for planning, designing, governing, and managing schools as community hubs. The ‘How to Hub Australia’ framework offers evidence-based advice on school infrastructure provision and management linked to the activities, programs and services that may be offered from school sites in addition to schooling. Commonly, these include early years and adult education, organised sports, recreation, library and information services, visual and performing arts activities, and health and wellbeing services. The framework is intended to help policymakers, school leaders, and designers overcome the uncertainties and perceived obstacles that tend to limit the provision and use of school facilities for broader community benefit. If it were simpler, would it happen everywhere? This chapter argues that community-facing schools could become commonplace, rather than exceptional, through the establishment of effective and enduring partnerships and updates to governance and funding models.

Keywords Schools as community hubs · Mixed-use social infrastructure precincts · Social infrastructure · Community facilities · Community schools · Learning environments

Introduction

How can research, policy and practice be linked to inform the planning, design, governance, and use of school infrastructure to meet the emerging needs of local communities? This question directed a three-year investigation into how best to plan,

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design, govern and manage schools to operate successfully as ‘more than a school’ and encourage the development of better connected and more resilient communities.

The research project, *Building Connections: Schools as Community Hubs*, brought together a multi-disciplinary team of academics with backgrounds in education, urban planning, architecture, evaluation, human geography, wellbeing sciences, and educational facility planning to investigate the socio-spatial operation of schools as community hubs. *Building Connections* was funded by the Australian Research Council’s Linkage grant scheme and involved five state government and industry research partners from four Australian states and four Ph.D. candidates. Gaining insights into the opportunities and challenges associated with developing, implementing, and sustaining schools as community hubs required cooperation between researchers from multiple disciplines and collaboration with diverse participants and stakeholders from around Australia and internationally.

In the coming decade, Australia will require hundreds of new schools to meet the demands of a growing school-aged population (Goss, 2016). This presents a significant opportunity to embed new knowledge about the role that indoor and outdoor spaces can play in developing and supporting school-community relations and providing the social infrastructure assets needed by communities in cost efficient ways.

Historically, schools have been some of the most underutilised assets in Australia, with many used sparingly outside of school hours or on weekends (Cleveland, 2016). The co-location of school infrastructure with other forms of social infrastructure could play an increasingly important role in providing communities with the venues they need to flourish. Well distributed facilities are required across Australia to accommodate early years and adult education, sports, recreation, library and information services, visual and performing arts, and health and wellbeing services. Adapting the programming of existing school facilities and designing new schools to become anchor organisations in mixed-use social infrastructure precincts could play a transformative role in providing essential infrastructure for local communities, especially in high-growth inner urban, peri-urban, and regional city contexts.

Of course, this situation is not unique to Australia. The notion that schools should have stronger relationships with their communities has been promoted by governments, educators, health service providers and community developers in Europe, North America, and Australia over past decades (Cummings et al., 2011; Dryfoos, 1994; Dryfoos & Maguire, 2002; Hands, 2010; Pelletier & Corter, 2005; Salagaras, 2009; Sanjeevan et al., 2012). In Australia, a policy cycle focused on the multiple roles of schools in society has been recurring every few decades since the 1930s. Bursts of concentrated research and policy development have regularly included a focus on strategies for community infrastructure provision (Lewi & Nichols, 2010). Another ‘community turn’ (McShane, 2006) in public policy is currently evident.

Despite temporal cycles of interest in schools as community hubs, the literature concerning school facilities has predominantly focused on their design for teaching and learning, overlooking the role of school infrastructure in supporting the education, and health and wellbeing of the wider community (McShane & Wilson, 2017). Nevertheless, the days of Australian school sites operating from 9:00 a.m. to 3:30 p.m.

appear numbered (Cleveland & Woodman, 2009). Population growth, the densification of cities, and increasing demand for high-quality venues for a range of activities, programs and services is demanding that school infrastructure contributes more to social infrastructure networks, to offer a broader demographic access to the facilities and services they need.

Initially, this chapter describes the range of operational forms, or types, of schools as community hubs. Two illustrative examples are then described: one from Australia and another from Denmark. The strategies adopted by the research team to create a framework for planning, designing, governing, and managing schools as community hubs are then outlined and the emergent ‘How to Hub Australia’ framework is presented and discussed—drawing on and highlighting the key issues and themes addressed throughout the book. With a view to how the framework may be implemented, the question, ‘If it were simpler, would it happen everywhere?’ is addressed. To conclude, suggestions are made for shifting currently transformative approaches to school development to become normative, and practical suggestions are made to help achieve this.

Types of Schools as Community Hubs

Across Australia and elsewhere, almost all schools play the role of community hub to some extent, yet to vastly varying degrees. Looking at schools in Ontario, Canada, Clandfield (2010) suggested that school-community relations may be considered along a five-part continuum, extending from the community use of schools to fully integrated school-community relationships. At one end of the continuum he identified two types which he described as ‘sharing on demand’:

1. Community use of schools—involves community groups booking a space for use after hours, such as for “a public meeting in the auditorium, a sports event in the gym or on the grounds, a book club in the library, or a craft demonstration in an art room” (pp. 15–16).
2. Parallel use and shared use of schools—involves regular use of school facilities over time by approved groups, such as a yoga studio using the gymnasium each weekend, night classes for adults in classrooms, or a municipality operating play groups for children and carers in multipurpose spaces.

Clandfield (2010) described two further types as being associated with ‘rationalising services and use of space’:

3. Co-location of community services—involves the use of school property by either the school or municipality to operate, for example, a day-care centre, public library, swimming pool, or community centre, with services targeted to the needs of the local community, making efficient use of public space.
4. Full-service schools—involves an array of services around the needs of children and their families, where, for example, family services supplement a day care

centre, migrant services are offered to newly arrived families, breakfast and meal programs are offered to children in need, and medical services are integrated into school operations.

Finally, Clandfield (2010) identified the ‘two-way hub’, which he suggested must go beyond the parallel use of school-located facilities:

5. The school as community hub—involves the school’s curriculum and learning activities contributing to community development, and community development activities contributing to and enriching curricula and learning within the school.

Clandfield (2010) envisaged the ‘two-way hub’ as:

... a kind of New Commons where education for all, health, recreation, poverty reduction, cultural expression and celebration, and environmental responsibility can all come together to develop and sustain flourishing communities on principles of citizenship, co-operation and social justice. (p. 20)

The term ‘school as community hub’ used in this chapter—and indeed throughout this book—does not specifically align with Clandfield’s use of the same term and his description above. The Building Connections project was not premised on a specific aspiration for what schools as community hubs might be. However, the project found strong support around Australia and internationally for better developed school-community relations, especially associated with the types Clandfield (2010) identified as the ‘co-location of community services’ on school sites and the creation of ‘full-service schools’. Support was also found for deeply integrated relationships between schools and community development activities, along with acknowledgement of the operational challenges that such integration can present.

Leading Examples

Several projects in Australia and internationally have become recognised as exemplar schools as community hubs, helping others rethink how schools might better engage with their urban surrounds and local communities.

The Korayn Birralelee Family Centre opened in 2020 in Corio, Victoria, as a new addition to the schools as community hubs landscape in Australia. It represents efforts of the Victorian State Government to expand full-service school models in underprivileged communities. It was inspired by Doveton College, built over a decade earlier in an underprivileged area in outer Melbourne and commonly acknowledged to be the ‘lighthouse’ with respect to community-facing schools in Australia. Doveton’s first decade of operation has been well-documented (see for example Glover, 2020) and has informed the development of many subsequent schools.

The Korayn Birralelee Family Centre was created through a partnership between the Victorian Department of Education and Training, Department of Families, Fairness and Housing, City of Greater Geelong, Our Place and Northern Bay P-12 College, with philanthropic support from the Coleman Foundation. The centre and college

are connected both physically and operationally, although they sit on parcels of land owned separately by the Department of Education and Training and City of Greater Geelong (see Fig. 1).

Korayn Birraleee means ‘Corio children’ in the local Indigenous language, Wadawurrung. The centre includes a shared entry and reception with Northern Bay P-12 College (see Fig. 2). It offers long day care, kindergarten, maternal and child health services, playgroups, parenting programs, five consultation rooms for allied health services, a specialist family support program room, toy library, multipurpose community room, parent lounge and an extensive, nature-inspired outdoor play area (Our Place, 2021). In keeping with an approach developed by Our Place, as applied at ten school sites across Victoria between 2019 and 2022, five core strategies have contributed to achieving positive outcomes for children, families, and communities:



Fig. 1 Aerial view of Korayn Birraleee Family Centre, with connection to Northern Bay P-12 College (Image courtesy of Brand Architects. Photograph by Blue Tree Studios)



Fig. 2 Entry to Korayn Birraleee Family Centre, with passage through to Northern Bay P-12 College (Image courtesy of Brand Architects. Photograph by Blue Tree Studios)

1. High-quality early learning, health, and development
2. High-quality schooling
3. Wrap-around health and wellbeing services
4. Engagement and enrichment activities for children
5. Adult engagement, volunteering, learning and employment (Our Place, 2021, p. 8).

‘The Heart’ project in Ikast-Brande, Denmark, opened in 2018, creating “a meeting point where relationships between various societal and age groups can be formed and maintained” (C.F. Møller Architects, 2022, p. Projects section). As a major expansion of the International School Ikast-Brande, the multi-functional building (see Fig. 3) and outdoor areas (see Fig. 4) support a variety of community events, exercise, and recreational pursuits, plus places to work that include a café and office facilities.

The project has drawn significant international attention, due partly to its wondrous architecture, and partly due to the partnerships established between the Ikast-Brande Municipal Council, International School Ikast-Brande and other stakeholders, highlighting the productive involvement of Denmark’s 98 municipalities in school provision and governance (Moos, 2014). The project was delivered through partnerships with local businesses, the Danish foundation Realdania and the Danish Foundation for Culture and Sports Facilities. The Carlsberg Foundation contributed artworks to both the building and the site (IAKS, 2022).

‘Hjertet’ (The Heart) acts as a link between several organisations in a growth area of Ikast, being situated between the HHX Ikast Business College, Ikast-Brande upper secondary school, the teacher training college, and Ikast-Brande International



Fig. 3 ‘The Heart’ in Ikast, combining education, activities, community, exercise, and recreational pursuits (Image courtesy of C.F. Møller Architects. Photograph by Adam Moerk)



Fig. 4 Aerial view of ‘The Heart’ in Ikast (Image courtesy of C.F. Møller Architects. Photograph by Adam Moerk)

School. The latter uses a wing of the building as classrooms during the school week, in addition to the school’s other facilities located nearby.

Various wings of the ‘multi-building’ are arranged around a central square with a performance stage. The school’s classrooms occupy one wing and may be converted into multiple rooms and art workshops for clubs and evening community classes. The ground floor is complemented by a café and a shop area where local organic groceries and crafts are sold. The first floor has rooms for activities such as dance, yoga, cultural events, performing arts, and counselling services for young people in the municipal Youth and Education Advisory Centre. Outside, the landscaped areas include a skate bowl and flow skate park, a cycle pump-track, parkour facilities, playgrounds, beach volleyball pits, and a multi-use playing field. Less active pursuits are also afforded for boules, picnics, and campfires. The facilities are intended to support the participation of community members of all ages, offering them multiple opportunities to engage in activities that foster social connection and wellbeing (IAKS, 2022).

Research Design

With a broad research agenda, the multi-disciplinary Building Connections project was designed around a mixed methods approach. This enabled academics, Doctor of Philosophy (Ph.D.) candidates, industry partners, and collaborators to contribute based on their disciplinary perspectives and expertise. As mentioned above, the project drew on perspectives covering education, urban planning, architecture, evaluation, human geography, wellbeing sciences and educational facility planning.

The methodologies and methods applied across all aspects of the project are too numerous and varied to outline in this chapter. Here, the focus is on how the findings

from different research activities were brought together to generate the emergent ‘How to Hub Australia’ framework, which is introduced below.

Literature Scoping Study

The project began with a literature scoping study. Boolean key words searches were conducted for a variety of synonyms related to three terms: ‘school’, ‘infrastructure’ and ‘community’. A library of 302 relevant publications was produced and an annotated bibliography of the most salient publications was generated to inform subsequent research.

International Conference

The Schools as Community Hubs International Conference 2020: Building Connections for Community Benefit explored the wide-ranging issues pertinent to the field of inquiry, with an international audience. 130 delegates from Australia, North America, Asia, and Europe attended. The event provided insights into current and historic initiatives and research related to schools as community hubs. Further, it created a community of academic and industry practitioners who are engaged in complementary research. A 180-page proceedings was published (Cleveland et al., 2020). This included 14 peer-reviewed papers from 25 authors in Australia and the United States.

Expert Focus Groups

Three expert focus groups (Krueger, 2014) brought together a total of 71 experts from industry, government, and academia to identify the opportunities and constraints associated with schools operating as community hubs. These sessions were held online and included participants from Australia (33) and abroad (38). Public-facing summaries were published to share the emergent themes and insights from Australia (Chandler & Cleveland, 2020), Canada and the United States (Chandler & Cleveland, 2021), and the United Kingdom and Europe (Chandler & Cleveland, 2022).

Four Ph.D. Projects

Four Ph.D. projects funded by the Building Connections project all informed the ‘How to Hub Australia’ framework. While all still underway at the time of writing, the literature reviews, interviews, focus groups, workshops, impact models, and other

fieldwork activities undertaken by Carolina Rivera (lived experiences of schools as community hubs), Hayley Paproth (evaluative thinking and schools as community hubs), Rob Polglase (policy settings for schools as community hubs) and Natalie Miles (schools and social infrastructure networks) and their supervisors all contributed to generating new understandings.

National Survey of Schools

The Connecting Schools + Communities Survey was created by the Building Connections research team to understand how and why schools share their facilities with their community and to seek school and hub leaders' perceptions about the opportunities and challenges associated with doing so. A rigorous approach to item generation and development (Rattray & Jones, 2007) helped inform the 'How to Hub Australia' framework by drawing together insights from other research activities. While the data from the survey was not analysed at the time of writing, the process of developing, piloting, and refining the survey was informative.

Edited Book

The production of the 21 additional chapters in this edited book expanded the reach of the project across Australia and into Canada, New Zealand, South Korea, United Kingdom, and the United States, uncovering important insights into research and industry developments associated with schools as community hubs.

Value Focused Thinking Framework

The six guiding principles of the 'How to Hub Australia' framework were identified via a structured decision-making process called value-focused thinking, a methodology suited to decision-making in complex settings where the needs of many different stakeholder groups must be considered (Keeney, 1992). This approach to data synthesis was used to integrate initial findings from the research activities outlined above. Ruby Lipson-Smith, Ph.D., led three workshops attended by all members of the Building Connections research team. She adopted the value-focused thinking methodology (Lipson-Smith et al., 2019) to help the team identify what is fundamentally important when developing, implementing, and sustaining schools as community hubs. A detailed set of means objectives (things that will help achieve the fundamental objectives) was also identified.

Meta-Synthesis

To draw the multiple strands of research together and generate the factors within the framework, a process of meta-synthesis (Walsh & Downe, 2005) was adopted. This approach to amalgamating the findings of similar qualitative studies in a related area was described by Walsh and Downe (2005, p. 205) as one that “enables the nuances, taken-for-granted assumptions, and textured milieu of varying accounts to be exposed, described and explained in ways that bring fresh insights”. They cited Stern and Harris (1985) as the first to coin the phrase ‘qualitative meta-synthesis’. This, they differentiated from the meta-analysis of quantitative studies by suggesting that “the latter aims to increase certainty in cause-and-effect conclusions in a particular area, while the former is more hermeneutic, seeking to understand and explain phenomena” (Walsh & Downe, 2005, p. 204). Ultimately, the translation and synthesis of findings from across the research activities undertaken by the Building Connections team produced the ‘How to Hub Australia’ framework, which is introduced below.

The ‘How to Hub Australia’ Framework

The ‘How to Hub Australia’ framework depicted in Fig. 5 is intended to help policymakers, school leaders, and designers overcome the uncertainties and perceived obstacles that tend to limit the provision and use of school facilities for broader community benefit. The framework offers evidence-based advice on school infrastructure provision and management linked to the activities, programs and services that may be offered from school sites in addition to schooling. It highlights the need to adopt a broad perspective on the roles that schools play in society, and the need for supportive policy, leadership, and evaluation.

Additional layers of information will be added to the core framework to produce an evidenced-based resource to help inform the decision making and efforts of stakeholders wishing to develop, implement, and sustain schools as community hubs. Work is underway to produce this content, based on the research undertaken by the Building Connections research team. Resources produced by others will also be curated for inclusion in the framework. The overarching school context and culture, six principles and 12 factors that make up the framework are outlined below.

School Context and Culture

It is important to note that the success of each school as community hub is contingent on responding appropriately to its unique context and culture. The adoption of a ‘more than a school’ mindset should be paired with a clear and well-informed

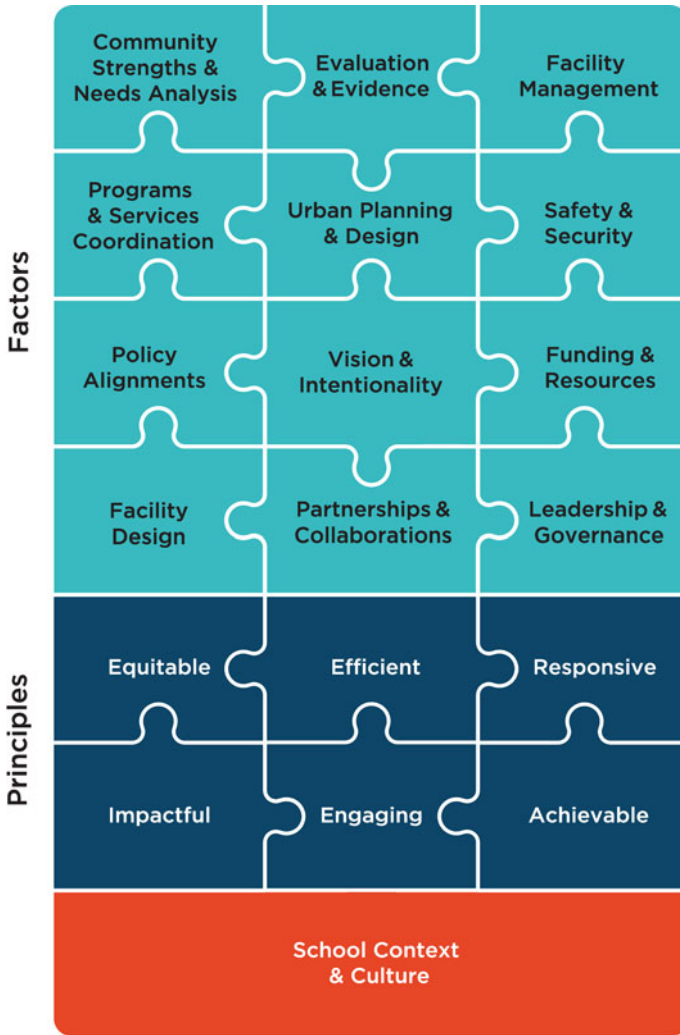


Fig. 5 The ‘How to Hub Australia’ framework (Cleveland et al., 2022)

perspective on why enhanced school-community relations should be established. Every school should respond to its unique socioeconomic, geographic, and cultural situation differently.

Principles

Six overarching principles should shape school as community hub initiatives:

Engaging Maximising stakeholder engagement is critical to fostering initial interest, connection, and long-term contributions to hub operations. Developing and sustaining partnerships that promote a sense of ownership and belonging is foundational to ongoing success. Stakeholders and partners may typically include both funders and users: education authorities, federal and/or state government departments, local municipalities, philanthropic organisations, service providers, sporting clubs and associations, school principals, school council members, parents, students, teachers, and community members.

Achievable: Maximising the feasibility of school as community hub initiatives requires due diligence, with a view to the future. Hub initiatives should be tangible, attainable, and based on a clear vision.

Equitable: Maximising access to hub activities, programs and services means providing equitable and inclusive opportunities for education, health, and wellbeing to all who wish to participate.

Efficient: Maximising the efficient use of hub resources means ensuring outcomes are assessed relative to the emotional investment, funding, labour, and spatial assets contributed. If intended outcomes change, so should assessment of efficiency.

Responsive: Maximising alignments between hub offerings and community strengths and needs is essential when initiating new hub projects. Adapting hub models to new locations requires close attention to local needs. Responding to changing contexts, such as demographic changes over time, should keep hub activities, programs, and services relevant.

Impactful: Maximising the positive and lasting impacts of schools as community hubs depends on regular patronage. This requires attention to the quality and long-term sustainability of activities, programs, services, and facilities. It is critical for hub offerings to reach intended populations and for contact to be maintained over time.

Factors

Twelve factors are offered to help guide those undertaking school as community hub projects.

Community Strengths and Needs Analysis: Every school as community hub is different. Detailed insights into local community contexts and requirements should inform hub objectives. Place-based approaches that engage community members and other stakeholders in the planning of activities, programs, services, and facilities is important, because one size does not fit all.

Vision and Intentionality: Developing a shared vision with stakeholders is essential to short- and long-term success. Championing this vision and adopting an intentional approach will attract like-minded partners and collaborators, guide decisions and facilitate action.

Partnerships and Collaboration: Schools can't go it alone. Schools have limited resources. Partnerships with like-minded community members, organisations and service providers are critical to establishing and operating a school as community hub. Facilitating communication, nurturing relationships, and developing robust partnerships requires significant investment of time and resources, but dramatically expands capacity for lasting impacts.

Leadership and Governance: School principals need support. Ideally, school leaders will champion hub projects, without becoming overwhelmed by additional hub-related responsibilities. Investing in their capacity to work with the community and external organisations, adopting distributed leadership models, and appointing dedicated hub leaders employed by the school or partners, will help prevent principal burn-out. Clear governance structures and decision processes also reduce stress.

Policy Alignments: Schools as community hubs inhabit fragmented policy environments. Enacting policy often requires crossing jurisdictions and funding agencies. Early insights into how the policies of stakeholders may influence a hub's development and operations should inform the way forward. Monitoring policy updates and their influence on hub resourcing, facilities and operations is also important. Regular engagement with policy makers enables advocacy for policy changes and fosters ongoing support.

Funding and Resources: Reliable, long-term funding and financial management are essential. Blending and braiding funding from different sources—often tied to reportable outcomes—is often required to support hub operations. Further, facility construction and management often necessitate contractual agreements between partners. Upfront agreements on who's paying for what helps avoid disputes.

Programs and Services Coordination: Random acts of programming won't deliver impact. Strategic planning ensures day-to-day activities, programs and services achieve the desired outcomes. This requires effective governance and choosing not to partner with stakeholders whose objectives do not align with the hub vision. Training and retaining skilled coordinators is critical.

Urban Planning and Design: Schools don't exist in isolation. Planning for hubs must consider their location relative to other infrastructure, plus their physical integration with immediate urban surrounds. The connection of school facilities with social infrastructure networks can enhance community education, health, and well-being. Design should boost the neighbourhood aesthetic, with welcoming thresholds between school and public property to foster a sense of belonging and encourage community members to access hub activities, programs, and services—as appropriate at different times of the day (see 'safety & security' below).

Facility Design: Design for learning and community. Identifying all user-groups is a prerequisite to good facility design. Buildings and outdoor spaces should accommodate core school activities, with flexibility for other uses. Digitally connected facilities should enable multiple modes of communication between program/service

providers and users. Spaces should be welcoming and inclusive, designed for all ages and abilities. Shared or co-located facilities can create budget efficiencies through capital and operational cost sharing.

Safety and Security: No school should be a fortress. Balancing security with an environment that welcomes the community is achievable. Safety is of heightened importance when children mix with adults from the wider community and is best discussed early in design, when both ‘hard’ and ‘soft’ security options can be explored. When stakeholders collaborate openly, solutions to security challenges can be found. Well-defined access protocols for different user groups during school times and outside hours should guide security measures.

Facility Management: Sharing facilities means sharing their management too. Sharing school facilities with the community increases the complexity of school site management. It is important to involve the managers of school facilities early to ensure sustainable arrangements inform the master plan and individual facility designs. Partnering with facility management groups, or outsourcing such services, can improve community access, while reducing the administrative burden on school personnel.

Evaluation and Evidence: High-quality feedback should inform decisions. Evaluation is vital as new hubs develop and as existing hubs evolve. Lessons from other hubs can help steer new projects in the right direction. Regularly collecting, analysing, and reporting evaluation data helps to sustain hubs. Metrics that go beyond students’ academic achievements to assess the impact of hubs on belonging, engagement, satisfaction and tangible benefits to individuals, families and the wider community should be considered. Partnering with trained evaluators can help overcome the challenges this may present.

If It Were Simpler, Would It Happen Everywhere?

Applying the six principles and 12 factors outlined in the ‘How to Hub Australia’ framework is not necessarily easy. Building and operating schools as community hubs requires consultative planning, working with others, making good design decisions, and the agility to respond to changing circumstances based on evidence about what’s working and what’s not. Yet, these alignments can be established through relationships between different levels of government, different government agencies, services providers, community groups and other participating organisations—often aided by skilful facilitation and philanthropic support (McKenzie, 2019).

Notably, where governance for schooling and additional services (e.g., early years, community wellbeing) sits across the same level of government, multi-service hubs with schools at the centre tend to be more common. For example, the Australian Capital Territory (ACT) has only two levels of government (federal and territory) and the Education Directorate has responsibility for schooling and early years services. The directorate holds a clear policy position on schools operating as community

hubs in its ten-year strategy titled *The Future of Education* (ACT Education Directorate, 2018). Under the heading ‘strong communities for learning’, the strategy advises that teachers and school leaders should work in partnership with families, other professionals, and support staff, to reorient schools as multi-service environments to better meet the academic and wellbeing needs of students, their families, and members of the broader community. The strategy promotes collaborative partnerships between schools, government, and community service providers to enhance wellbeing, resilience, and connections throughout the community:

This means that parents and carers are active participants in school life, involved in the learning of their children. Professionals such as social workers, psychologists and other health professionals bring their expertise to support student wellbeing and engagement in learning and provide families with convenient access to services including through outreach models. Other partners, like community service providers, unions, business, cultural and sporting organisations, enrich what schools can offer to students and the wider school community. (ACT Education Directorate, 2018, p. 6)

Similarly, Danish schools are planned, designed, and resourced by local administrations with responsibilities for governing and financing schools, along with a range of community services. In Denmark, funding flows from the national government to 98 municipalities, where decisions are made about education services and associated social infrastructure (Moos, 2014). There, municipal-level administration of schools assists integrated infrastructure planning and shared use. This promotes an expectation that school facilities should be accessed by local residents for a range of services and community activities.

Policy settings that streamline governance and funding arrangements, as found in the ACT and Denmark, may reduce the burden of establishing effective and enduring partnerships between core service organisations, such as schools and early years providers (McCulloch et al., 2004). Of course, establishing partnerships with external organisations and service providers often remains essential to meeting community needs. Also, breaking down siloed approaches to service and infrastructure delivery is essential if schools are to extend their reach to benefit the broader community. When multiple levels of government are involved, for example state governments with responsibility for school education and municipal governments responsible for early years and community services, further collaborative efforts are needed to align objectives, timelines, and funding.

Simplifying, or normalising, the partnership models that can shape community-facing schools (Hands, 2010; McShane, 2006; McShane & Wilson, 2017) could see schools as community hubs become more commonplace, rather than the exception. Establishing effective and enduring partnership models that prioritise the stability of governance and long-term funding, would go a long way to making currently transformative approaches to school development normative, enabling more schools to make a meaningful difference for children, families, teachers, and various populations within local communities.

Conclusions

What roles do we wish our schools to play in contemporary society, and how can we build them accordingly?

This chapter outlined various types of schools as community hubs, described illustrative examples from Australia and Denmark, profiled the strategies adopted by the research team to create the ‘How to Hub Australia’ framework for planning, designing, governing, and managing schools as community hubs, and suggested that attention must be paid to policy settings related to governance and long-term funding of community-facing schools if progress is to be made towards developing more community-facing schools.

Leadership and evaluation also have significant roles to play in determining what types of facilities should be built on school sites to support the education, health and wellbeing of young people and the wider community. Expanding the mindsets of school principals and others towards seeing themselves as civic leaders of communities, as well as leaders of learning, would aid a school as community hubs agenda. Leaders are needed to both shape new hub projects and steer existing projects as they evolve over time—leading and responding to evaluative evidence as a key driver of decisions.

Finally, it is hoped that the ‘How to Hub Australia’ framework will help inform all stakeholders wishing to contribute to school as community hub projects, offering them insights into the issues to be addressed and advice on the challenges to be overcome. This chapter introduced the framework in its simplest form. Additional layers of information will be added to produce an evidenced-based resource to help inform the actions of those wishing to develop, implement, and sustain schools as community hubs, towards developing better connected and more resilient communities. Collectively, the chapters that follow in this book elaborate on the issues and themes highlighted in the framework.

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Partnering

School-Community Collaboration: Insights from Two Decades of Partnership Development



Catherine M. Hands 

Abstract In recent years, there has been increasing interest in school-community partnerships as a promising way of supporting students academically, socially and emotionally in both Canada and the United States. This chapter outlines a partnership process that developers have found useful over past decades in creating their school-community relationships. While understanding the partnership process is helpful, relationships are fostered in complex social contexts that can either facilitate or frustrate efforts to collaborate. A willingness to accommodate collaborators' needs and goals, and opportunities to modify collaborative activities over time to better meet needs encourages partnership development and sustainability. Two-way communication and a shared purpose assist students, educators, families and community members to create mutually beneficial relationships founded upon a philosophy that all constituents have valuable resources to share. Hindrances to collaboration include territorialism, and agendas determined by the educators, school and district leaders without community input. Educators' perceptions of student, family and community needs can be problematic in culturally and economically diverse communities where residents' life experiences do not match theirs. The chapter includes recommendations for creating more seamless interactions among schools, districts and communities.

Keywords Urban schools · Communities · Social infrastructure · Partnerships · School-community relationships

Introduction

Cooperation and partnership play a foundational role in all non-human and human interaction and interrelationships in the environment (Capra, 1994/2009; Marten, 2001; Steiner, 2002). "In the self-organization of ecosystems, cooperation is actually much more important than competition" (Capra, 1994/2009, p. 8), which is reflected

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in the extensive network relationships in any society, with information and resources flowing in and across networks (Capra, 1994/2009; Marten, 2001; Steiner, 2002). Because cooperation is so prevalent in our world, it is a surprising contrast when we find it is not present.

Often culturally and economically diverse, urban schools are depicted as islands in the community, cut off from the neighbourhoods they are supposed to serve, disconnected from the lives students and their families lead outside of the school. A comprehensive meta-analysis of research on community involvement in North American urban schools revealed an overwhelming number of schools with limited community engagement (Schutz, 2006). While this analysis focused on the United States, similarly, in Canada, school personnel and community members such as parents were not frequently sharing their resources, and fitting their knowledge together (Pushor, 2007). Authentic partnerships, in which all parties are viewed as having resources and able to democratically engage in a collaborative relationship (Auerbach, 2011; Hands, in press) are uncommon.

Students with the greatest need for support in diverse, urban settings are least likely to be connected to their community (Schutz, 2006). In observing the disconnect between youth and the adults in their lives, influential American ethics scholar, Nel Noddings (1992), noted that children and youth are cast adrift in an adult world they perceive to be baffling at best and hostile at worst, so it is no wonder they think adults do not care about them and their concerns. Noddings' (1992) solution at its core is the establishment of caring relationships between youth and the adults surrounding them, building bonds of trust and nurturing over time to support and prepare youth to take their place in society as positively contributing citizens.

Youth, educators and community members alike have identified support from community members as vital to keeping youth engaged in their education by providing them with consistent messages about the importance of obtaining an education and persevering to achieve their academic goals (Epstein, 1995, 2011; Epstein et al., 2018; Shapiro et al., 2002). It can also strengthen trust and build their resilience when dealing with adversity (Darling-Hammond et al., 2020). Recognizing the critical need to re-establish family-school-community relations, intentional, deliberately cultivated partnerships have been touted to provide relevant educational opportunities and support for students as well as strengthen community ties since the early 1980s (Epstein, 1995, 2011; Epstein et al., 2018).

Chapter Overview

Community engagement exists on a continuum from no engagement or few connections between schools and their communities, to interagency collaboration, to full-service community schools and community development, which reflect the most integrated relationship between schools and their communities (Valli et al., 2016). This chapter examines community engagement from a North American perspective, drawing heavily on American empirical literature and research studies conducted in

Ontario, Canada and California, USA. The common themes from three studies of school-community partnerships at schools with numerous relationships and collaborative activities are presented and discussed. While these studies focus on interagency collaboration, the findings are broadly applicable, as they relate to human interaction, which is a foundational component of full-service schools just as they are for any school with partnerships. First, the chapter looks at strategies that individuals deploy and their resulting impact when seeking to establish and maintain collaborative activities. Moreover, collaboration does not take place in a vacuum; partnering success or failure is contingent on the social contexts that make collaborating across multiple sectors and organisations simple or complex. Consequently, the chapter explores enabling factors and challenges in the social contexts surrounding school-community collaboration and concludes with recommendations for policy and practice.

A Close-up of the School-Community Partnership Process

Collaboration is not widespread, even with increasing interest in school-community partnerships. Consequently, there is room to examine features that critically impact possibilities for partnering and relationship sustainability. District- and school-level administrators, teachers, and community business owners, plus representatives from non-profit organisations, social services and other public sector institutions have reflected on their successful and not-so-successful professional relationships, reporting strikingly similar experiences. Their insights and advice have contributed to a map of the partnership process, revealing a pattern of seven distinct stages, and feedback loops in which collaborators share information with each other (Epstein et al., 2018; Hands, 2005, 2014, in press; Sanders & Harvey, 2002). These stages are explored below.

- Stage 1: Identify own needs and goals (student, school, programme, or community partner).
- Stage 2: Locate potential partners.
- Stage 3: Initiate contact among potential partners and begin collaborative discussions.
- Stage 4: Negotiate partnership terms (goals, activities).
- Stage 5: Create win-win situation whereby all partners benefit.
- Stage 6: Engage in collaborative activities.
- Stage 7: Assess activities in terms of their ability to meet needs and goals.

In the first three stages, partnership initiators identify stakeholder needs and goals and contact potential collaborators. Partnerships involving schools, their employees or the students themselves are most commonly based on students' needs and school administrators and teachers most often identify them (Stage 1) (Epstein et al., 2018; Hands, 2005). If partnership initiators determine that stakeholder needs and goals cannot be met within their organization, they seek out potential collaborators who can likely help to achieve them (Stage 2) (Hands, 2005). Contact is most easily initiated

through the individuals' social and professional networks, although initiators will reach out to people they do not know if they believe the potential partners can contribute to the relationship (Stage 3) (Hands, 2005, in press).

During Stages 4 and 5, school and district personnel and their prospective community partners discuss possibilities for partnering and establish collaborative activities in which all parties may benefit. First meetings often focus on building rapport among potential collaborators who do not know one another and seeking commonalities, such as shared interests and goals (Hands, 2005). Next, collaborators negotiate a win-win relationship with benefits for both sides. Relationships may not always be equal or quantitatively equitable: partnership terms need to satisfy collaborators' needs, and resources that may seem inconsequential for one party might be highly valued by the other (Hands, 2005, in press).

Once the partnership terms are defined and the collaborative activities are developed, the participants engage in the activities and assess the activities' success in meeting their needs and goals during Stages 6 and 7. Partners create feedback loops, communicating their observations and evaluations to one another in an ongoing manner, comparing their experiences with their established needs and goals (Hands, 2005, in press). If needs and goals are met, they continue engaging in the collaborative activities, and celebrate successes (Sanders & Harvey, 2002). If at any time they are not met, collaborators renegotiate terms, modifying the partnership or the activities as needed (Hands, 2005, in press).

Partnership Features and Partnering Practices That Promote School-Community Collaboration

Having a clearly articulated partnering method is a promising direction for improving school-community collaboration, but it is only part of the story. Some potential liaisons run up against unexpected obstacles despite concerted efforts to collaborate. It is therefore worthwhile to closely examine the partnership process, looking for essential components that may make or break school-community relations, and any tactics collaborators use to successfully develop their partnerships and maintain relationships over time. In doing so, this section highlights the importance of the relations among various people as well as ways in which to enact formal relationships among school personnel and community organizations' representatives that promote collaboration and limit potential conflict.

Involve All Constituents in Collaboration Discussions from the Beginning

Partnerships may cross sectors involving multiple groups, and collaborators need to be prepared to engage with diverse individuals with different perspectives and ways of working with others. According to a city leisure services manager, “it’s not something you can do on your own. It’s got to be a two- or three-way conversation. With all the partners. You know, to get everybody’s input.... You need to get people to come in on it with you”. Everyone who is affected by a policy or practice needs to be involved in negotiating the shared goals, interpreting any guiding policy with an intent to reach a common understanding, and developing collaborative activities (Epstein, 2011; Epstein et al., 2018; FitzGerald & Quiñones, 2018; Hands, 2005).

Students also need to be included in partnership creation if they are involved in the collaborative activities in any capacity. Students can play an integral role in advocating for school change and initiatives involving community members with some guidance from the adults around them (Mitra, 2007, 2009; Yonezawa & Jones, 2011). While students and educators alike may think it is not part of a student role to participate in a formative way in curriculum or community engagement initiatives (Hands, 2014), teachers and educational administrators in particular might consider adopting an inclusive approach to ensure students’ voices are heard throughout the partnership development and implementation processes.

Similarly, any teachers or support staff who are expected to develop relationships with the community should be involved in discussions. Including diverse groups of people to define a purpose for partnering that is shared by everyone promotes constituent buy-in that is crucial for not only the initiation of a relationship but also its longevity (Datnow, 2000). It is a step towards creating “respectful alliances among educators, families, and community groups that value relationship building, dialogue, and power sharing as a part of socially just, democratic schools” (Auerbach, 2010, p. 729).

Promote Partnering Benefits

It is best to promote the benefits of partnering to potential partners from the beginning of the relationship (Hands, 2005). This requires initiators to have a good idea of what they can offer that would be of interest to the potential partners. Organizations’ missions and visions shape the kinds of partnerships sought or whether they are sought at all. For example, some community-based organizations such as the YMCA or Public Health may have mandates to work with children and youth, while schools may have a vision to promote holistic education and goals to include physical literacy, mental health or the arts (Hands, in press). Consequently, partnerships are sought with organizations that align with their missions and visions and can support their goals (Hands, 2005, 2014, in press). From the district and school perspective, generally,

relationships involving school personnel and their students are not likely to come to fruition if there is no clear benefit to the students. It is important for community members to explicitly articulate the benefits to students when seeking partnerships with schools and underscore any direct links between academic curricula and the learning opportunities they are offering (Hands, 2005, in press).

In the process of promoting the benefits, it is important to clearly outline the relationship parameters. Collaborators understand their and their organisations' limitations and are forthcoming about what they are able and willing to do within the parameters of the relationships; similarly, they are clear about what they want from their potential partners. Clear communication reduces chances partners' expectations are not met and increases their confidence that their time and expertise are valued (Hands, in press).

Embed Flexible Negotiation and Partnership Terms into Relationships

School personnel and community members alike have noted that flexibility is a key feature in partnering to ensure relationships are relevant. Collaborators are willing to accommodate their prospective partners from the beginning, shaping the terms of the relationship so that they can create a mutually beneficial partnership. At the same time, partnerships need parameters: "a structure in place that has to be flexible enough to accommodate everybody, but also where it's not loose, or nobody knows quite what's happening, when it's happening, and how we are doing along the way", observed a district superintendent. The collaborative activities also have room to change the partnership over time as needs evolved. Even with formal, contractual partnerships, "leaving some things vague and some things open, ... we can make modifications if we have to", according to a college broadcasting programme coordinator.

Opportunity to assess ongoing collaborative activities and communicate them to collaborators are essential ways to ensure policies and relationships are adjusted to meet all constituents' needs or terminated if they cannot. Collaborators need "the option of exiting, where it's not just 'Okay, we just don't show up anymore'", according to the superintendent. A plan from the beginning of the relationship for ending a partnership with activities that could not be altered to accommodate participants' needs helps to keep the doors open for future collaboration (Hands, 2005, in press). Flexibility is adaptive, promoting resiliency and enabling partnerships to be sustained over time (Capra, 1994/2009).

Social Contexts and Practices That Challenge School-Community Relations

The school, district and community contexts can create conditions conducive to partnering, or they can make it difficult to collaborate. Many of these challenges are not unique, and in the section that follows, various approaches to enhancing opportunities to collaborate and strategies for overcoming challenges are examined.

Territorialism, and Opening Schools up to Collaboration

Schools are contested territory (Boyd & Crowson, 1993; Keith, 1996). Multiple organisations, each with a mandate to support youth and responsibilities to carry out their mission as well as staff to guide towards their goals, can come into conflict with one another when they are all working under the same roof. Problems develop when community partners' mandates are not clearly understood, and there is a mismatch between educators' expectations and partners' capacity. Challenges may also occur when organisations are using school space after school hours, during the week, on weekends and during the summer. Questions arise regarding who has authority when the principal is not on site after hours and there are potential problems when classrooms are used. Community members and educators both report that some teachers are not supportive of community engagement in the school because users can leave the classes in disarray or damage classroom materials (Hands, in press).

The risk of potential territorial friction is minimized when school personnel reach out to community organisations to partner, inviting them into the schools. For several years, researchers investigating school-family-community partnerships have recommended that school leaders and teachers initiate collaborative activities with family and community members (see for example Epstein, 2011; Epstein et al., 2018; Sanders & Harvey, 2002; Sheldon, 2005), and with good reason: families are more readily involved in their children's education when they feel welcomed by school personnel (Hoover-Dempsey et al., 1992; Walker et al., 2005). The same is true for community members who may not know how to navigate the school system and are not able to initiate activities (Hands, in press; Sanders, 2018). Ontario's mandated school councils, which are made up of parents, teachers, administrators and community members, can function as action teams (Hands, 2013) to develop and maintain school-family-community partnerships (Epstein et al., 2018), as can district-level community liaisons (Hands, in press). Similarly, the full-service community schools literature highlights the importance of a site coordinator to establish and maintain diverse school-community collaborative activities at the school (Durham et al., 2019; Mayger & Hochbein, 2021; Sanders et al., 2019).

For those community members with established partnerships in schools, it is important to maintain respectful engagement. Some community partners—particularly those working with students in educational institutions during school hours,

report they take their direction from principals, and try to be good “guests” while they are in the schools. One child and youth worker who ran a pull-out programme for students with mental health and substance abuse issues within a school explained that meant he helped to coach collegiate sports, the school personnel were allowed to use his organization’s van to transport students to sporting events, and he and his colleagues worked to minimize any potential disruption to the rest of the school community from his clients (Hands, in press).

Address Limited Understandings of Community

Partnerships are usually initiated based on a schools’ agenda (Pushor, 2007), with goals that are not necessarily shared by the community members (Hands, in press). A mismatch between educators’ and students’ socioeconomic status or cultural experiences can create a divide between the teachers and the youth and their families, whereby they work in isolation at best or in opposition to one another in the worst scenarios (Bryk & Schneider, 2002). A mismatch limits the provision of culturally relevant educational experiences to engage the students in their learning (Dei et al., 2000) and threatens to break down communication and trust (Bryk & Schneider, 2002). Without allowing families and community members space to negotiate their involvement in education, they are not authentically engaged in ways that are meaningful to them (Auerbach, 2011; Barton et al., 2004; FitzGerald & Quiñones, 2018).

At times, the challenge lies within the individuals in the school building. Some educators adopt a deficit view of the community, assuming that residents need the school’s resources, rather than being able to provide others with any resources of their own. In one school with relatively few partnerships, the principal observed:

There’s a tremendous sense of community and a tremendous sense of, “We will take care of each other and try to take care of each other’s kids.”... The difficulty lies in the skill sets in order to get that accomplished.... to solve the problems and move forward are not always there.

With this approach, community involvement is not sought because the educators do not think the community has anything to offer (Keith, 1999). A school ethos that values collaboration is not fostered, and community engagement is not sought or welcome (Hands, in press). Schools remain siloed, separate from the communities they serve, and running the risk of providing irrelevant educational opportunities that do not meet societal needs.

Most importantly, all constituents need to share a philosophy that educating students cannot be left to the schools alone. One Community-based Education teacher captured the sentiments of other study participants and the mindset that encourages seamless, unobstructed exchanges between schools and communities: “I think education is a community responsibility.... If it’s left to us—the educators—then it’s not

going to happen to its fullest potential.” A secondary school guidance counsellor offered:

If we can have the community in and out of the school, and the school involved in different things in the community, then our kids’ll benefit. And I think that’s what needs to [take place] for real education to happen.

An outward-looking perspective that values the resources different constituents can potentially bring to a relationship needs to be adopted in place of a deficit approach, which views community members as needing support rather than as providers of support (Auerbach, 2011; Keith, 1999).

When school personnel have a philosophy that promotes community engagement as an essential educational component in place, they may be more inclined to seek out information about the communities surrounding their schools. With few educators living and working in the same community (Coleman & Hoffer, 1987; Hands, 2005), most need information about the neighbourhoods their schools are serving. Conducting an environmental scan is a strategy for gaining an appreciation of the community, its characteristics, as well as the residents’ needs and resources before setting up any relationships. School and district personnel as well as any interested parties can access publicly available Canadian statistics to build a picture of community demographics across the provinces, territories and country. At some individual schools in Ontario, school councils have been encouraged to seek out additional data from the school district, regarding student and family characteristics, such as languages spoken in the home (Hands, 2013). They also conduct surveys to find out how families are involved and how they are using community resources (Hands, 2013). School personnel can also visit students and their families at home (Hiatt-Michael, 2010), and district personnel can conduct community visits to get to know residents (Hands, 2013). A thorough review ensures initiators understand what others need and can therefore select partners with missions and visions that are compatible with theirs and promote the potential benefits of collaborating.

Ensure Alignment Among Policies and Practices

At other times, the social contexts external to the school negatively impact possibilities for partnering in the building. Even if governments are supportive of community engagement in education, legislation and the numerous mandates and guidelines for schools can conflict with one another and impede collaboration. The same is true for district-level policies and practices. For example, funding for school renovations was contingent on the schools having enough students to be populated at 83% capacity according to one study’s participants (Hands, in press). At the district level, schools near one another with low enrolment were being combined so they were eligible for refurbishing. While provincial government administrators may want to encourage collaboration, policies around school renovation reduce possibilities for partnering because high student capacity limits the available space in the school for services

and community resources. According to a district social work department head, “if I realise there’s just no way that I’m gonna have any room in buildings to bring in partners, then I’m not gonna waste my time bringing in partners”. The choice is between buildings that meet safety regulations as well as students’ learning and educators’ teaching needs and community engagement in education.

Although relationships among policies and their impact on one another are not always evident, policies at the district and provincial or state levels can compete and conflict with one another. Policy is often drafted as a response to a problem or to address an issue (Fowler, 2004; Malen, 2005). Policymakers would do well to survey the policy landscape with their goals in mind to identify any potential conflict before drafting new policy that may create other problems. A failure to do so leaves policy implementers, such as school administrators and teachers—who are able to initiate and maintain relationships with community members—with the task of prioritizing conflicting policies. Since community engagement is not always mandated, as is the case in Ontario, policies of that nature run the risk of being sidelined in favour of legislation or policies deemed more important (Clune, 1990).

Conclusions

Collaboration and partnerships are essential to life on this planet (Capra, 1994/2009). This is not surprising. Collaboration allows access to resources individuals would not have otherwise. In the case of school-community relationships, opportunities to share knowledge and expertise, material goods and funds, may enhance learning opportunities for students, programming support for educators, as well as provide information, skills and a workforce for the community. This kind of bi-directional resource exchange between schools and their wider communities promotes relevant education that reflects the communities’ contexts and may become more sustainable over time because the feedback accompanying such an exchange allows for modifications over time (Capra, 1999). From an ecological perspective, this kind of adaptability promotes resilience, or “the ability of social systems and ecosystems to continue functioning despite severe and unexpected stresses” (Marten, 2001, p. 158).

Insights from studies of the school-community partnering process inform us about the necessary ingredients collaborators require for developing mutually beneficial relationships—and alert us to potential pitfalls. Resources, such as time to develop and to participate in collaborative activities, a budget to support activities related to partnership development and engagement, a steering committee to coordinate and support community involvement initiatives, guidance, and leadership at the school and district levels (Sanders, 1999) are helpful and may be essential for effective collaboration. Yet, they alone do not guarantee successful partnering. The partnership features discussed, as well as less tangible elements such as participants’ mindsets and social contexts, may also play a role in school-community collaborative successes and failures.

There is a promising shift in some North American societies presenting opportunities for reconnecting communities with their schools. A growing number of schools and their districts are opening the doors to community engagement in education (Sanders, 1999, 2001), in some cases working closely with their partners in full-service community schools (Biag & Castrechini, 2016; Mayger & Hochbein, 2021; Sanders, 2018; Valli et al., 2016). Resilience is promoted not only within individual partnerships, but the partnerships themselves assist school systems to weather the storms of social change. Community engagement is not a substitute for “sound educational policies, adequate funding, or excellent teaching. It can, however, ... be the little extra that makes a big difference” (Sanders, 2003, p. 176), enabling educators and community members alike to meet the diverse needs of the children in our communities (Hands, 2005; Keith, 1996). Engaging multiple constituents from across communities is a way to support all students so they have opportunities to flourish academically, physically, socially and emotionally.

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Brokering School-Community Partnerships: Cross-Sector Advocacy and Hard Work



Lynden Lauer, Shirley Watters, Kari Morris, and Sandra Griffin

Abstract Collaboration within government and across sectors can be challenging due to differing priorities, disciplinary perspectives and funding cycles. This complexity can be a barrier when it comes to enabling schools to respond to local contexts and developing strong community partnerships. This chapter shares insights from one Australian state government pilot program that aimed to broker cross-sector relationships to benefit the health, wellbeing and educational outcomes of school children and the broader community. Established in 2014, the Community Hubs and Partnerships (CHaPs) pilot program was initiated by the Queensland Government to work with all levels of government, non-government organisations and the private sector to plan accessible and cost-effective social infrastructure to connect communities and support coordinated delivery of community services. Based on the practical experience obtained over seven years, this chapter discusses strategies for brokering partnerships, along with the types of impact and outcomes that can be achieved through collaborative approaches to planning social infrastructure. To illustrate the approaches and strategies that support the establishment of schools as community hubs, it profiles two related projects: Yarrabilba Family and Community Place, and the Buzz at Yarrabilba.

Keywords Schools · Communities · Government · Partnerships

Introduction

This chapter explores the lessons learned through the Community Hubs and Partnerships (CHaPs) pilot program which brought together a range of partners to plan and support the delivery of school-based community hub models in Queensland, Australia. The early objectives of the CHaPs program are explained and the context in which the program provides continued leadership and supports the collaborative planning of social infrastructure and integrated services in Queensland are described. Two

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community hub demonstration projects in the rapidly growing suburb of Yarrabilba in Logan, Queensland are showcased with the strategies found to support successful social infrastructure and services delivery discussed.

Social Infrastructure in Queensland

The Australian state of Queensland is growing fast. From a population of 4.8 million in 2014, Queensland is expected to grow to 7 million by 2041 and reach 9.5 million by 2066 (Queensland Government Statistician's Office, 2018a). Most of this growth will be in South-East Queensland where most of the state's population is based (QGSO, 2018b). To accommodate this growth, the state government has identified large land holdings on the fringes of existing population centres as Priority Development Areas (PDAs). This represents a key strategy to enable private land developers to deliver new, affordable housing stock attractive to young families.

The education capital program in the 2021–2022 state government budget indicates the scale of investment required to meet service demand in response to this growth, with A\$2.6 billion allocated for new schools and A\$1 billion to provide new classrooms and facilities at existing schools to meet increasing enrolments (Queensland Treasury, 2021a). Further, combined spending on health and education facilities and services made up more than half of anticipated state government expenditure in 2020–2021 (Queensland Treasury, 2021b).

This rapid population growth and the scale of investment required presents challenges and opportunities for government systems at a federal, state and local level. The challenge is to ensure that appropriate, quality social infrastructure and associated services are planned to meet the needs of communities as they develop, while staying flexible and responsive to changing demographics.

In Australia, schools are built and operated by three systems: state government, Catholic schools and independent schools. All students have access to a state government school at no or low cost as an alternative to the Catholic and independent school offerings, which apply student fees at varying levels. In Queensland, 70% of students attend a state government school (QGSO, 2021). In new housing developments, such as the PDAs, the state school is often the first piece of state government infrastructure delivered and, with the right partnerships in place, can be leveraged to deliver other government services.

It is within this context that the CHaPs program was introduced to pilot innovative and collaborative social infrastructure approaches.

Social and Economic Benefit for Queensland Communities

New approaches to delivering social infrastructure have been developed based on evidence that improved service accessibility and delivery, achieved through coordinated and collaboratively planned social infrastructure, can drive positive health,

educational and social outcomes. For service delivery agencies, integration and co-location opportunities can facilitate a reduction in capital and operating expenses and create diversified revenue sources through partnership approaches.

The range of state government delivered, or funded, services considered through co-located and integrated delivery models with schools include child and maternal health, early childhood education, mental health, parent support, and skills development and training programs. Depending on local context and community needs, it's also commonly desirable to include employment programs delivered by job service providers, along with community development programs, such as playgroups and youth programs, delivered by local government.

In Queensland, a range of school-based, service delivery models operate across the state. Examples include:

- provision of support services for students delivered by the school through youth health nurses, youth support coordinators, other wellbeing support staff and general practitioners (Department of Education, 2021).
- provision of support services for the school community through the programs delivered in partnership with other organisations on school sites. For example, 17 Queensland schools host the National Community Hubs Program, focused on supporting migrant and refugee women to access services, leveraging existing facilities in primary schools (Community Hubs Australia, n.d.).
- co-location and integration models that provide services for the broader community such as: the Aura Community Hub, a local government community centre co-located with the Baringa State Primary School in Caloundra West, a growing coastal area at the southern end of the Sunshine Coast, 90 km north of Brisbane; or the integrated social, health and education services provided through the Yarrabilba Family and Community Place (YFCP) co-located with the Yarrabilba State School in Logan, described later in this chapter.

The first two approaches can be implemented at the school level, leveraging existing school facilities. The CHaPs program pilot therefore primarily focused on enabling the third category due to the requirement for bespoke operational models and tailored infrastructure solutions to support services delivered by multiple agencies, both government and non-government.

The Role of the CHaPs Program

The CHaPs program was initiated as a pilot by the Queensland Government in 2014 as a dedicated cross-agency and cross-sector social infrastructure program to champion and support collaborative approaches to planning, investing in and delivering social infrastructure.

The CHaPs pilot was introduced at a time when service delivery was facing the dual challenge of significant population growth combined with an increasingly complex and overlapping range of demands from service users.

During the early years of the CHaPs program pilot, the team averaged eight full-time staff and additional contractors with experience across a range of fields including stakeholder and community engagement, program and project management, strategic partnership development and infrastructure planning. The focus during this time was on identifying collaborative planning opportunities that could lead to facilities being co-located, shared and developed as integrated hubs.

One of the defining features of the CHaPs pilot was that it aimed to build collaboration and partnerships around existing assets or planned investments in new infrastructure, such as schools, to maximise potential to improve community outcomes, rather than establish a new investment program. This reflects the objective of the program, with its remit to respond to the state's need to deliver cost-effective services and social infrastructure in areas of high population growth within a constrained funding environment.

CHaPs' program objectives were aligned with the Queensland Government's Strategy for Social Infrastructure, introduced in 2019 to guide the planning and delivery of social infrastructure through place-based collaborative investment.

Priority Development Areas in South East Queensland

Priority Development Areas (PDAs) are parcels of land within Queensland identified for development to deliver significant benefits to the community.

There are two PDAs south of Brisbane supporting significant growth in the area from Brisbane to the Gold Coast: Yarrabilba and Greater Flagstone. A further PDA declared west of Brisbane is referred to as Ripley Valley and supports growth through the western corridor to Ipswich.

The Yarrabilba PDA was declared in 2010 and covers 2222 hectares within the Logan City Council Local Government Area (DSDILGP, 2021c). In 2016 the population was 4182 people (QGSO, 2019). This has been growing steadily, with the current population estimated by the developer, Lendlease, to be over 10,000 people (Lendlease, 2021). Lendlease is the sole developer of the Yarrabilba master-planned community that will provide a range of housing designs and price points as well as home ownership and rental options. Full development of the PDA is expected to take 30 years and is planned to provide 20,000 dwellings to house more than 50,000 people (DSDILGP, 2021c).

Greater Flagstone PDA, also in the Logan City Council Local Government Area (LGA), covers 7188 hectares. Full development is expected to take 30–40 years and provide approximately 50,000 dwellings to house a population up to 120,000 people (DSDILGP, 2021a). Ripley Valley, in Ipswich City Council LGA, is in one of the largest urban growth areas in Australia. It offers opportunities for further residential growth to meet the region's affordable housing needs. It currently covers an area of 4680 hectares and will have the potential to also develop into 50,000 dwellings to house 120,000 residents (DSDILGP, 2021b).

Opportunities to Broker School-Community Partnerships in Yarrabilba, Logan

The CHaPs program successfully demonstrated a coordinated, cross-sector approach to planning school-based hubs in the rapidly growing Yarrabilba PDA in Logan. Yarrabilba's population is largely comprised of young, aspirational, working families. The median age of residents is 25 years and 31% of residents are under 14 years old, compared to 19% across Queensland (ABS, 2017). Notably, population projections indicate that younger age groups will be more prevalent in Yarrabilba for at least the next 20 years (QGSO, 2019).

Other indicators from the 2016 Australian National Census depict a community of contrast. High weekly incomes and a large working population could be mistaken as markers of an affluent community, whereas factors such as the high rate of rental housing tenure and proportion of one-parent families suggest that residents face financial and social challenges. Adding weight to these indicators of vulnerability, stakeholders have identified low levels of school readiness among children, high rates of domestic violence and high rates of substance abuse as prevalent in the broader region. These are potential drivers for emerging service needs within Yarrabilba.

Yarrabilba is approximately 15 minutes by car from the nearest, smaller, established population centres of Jimboomba and Logan Village, and approximately 30 minutes by car from the larger centres of Beenleigh, Beaudesert and Loganlea where health and wellbeing services can be accessed. The relative isolation of Yarrabilba from existing service networks and the unique demographic characteristics of the community were cause for the CHaPs program to prioritise collaborative social infrastructure planning for the emerging Yarrabilba community in 2016.

Case Studies

The following case studies provide information on the CHaPs program's involvement in supporting innovative social infrastructure and integrated service responses in Yarrabilba.

Yarrabilba Family and Community Place (YFCP) Demonstration Project

Given the profile of residents, one of the earliest service delivery priorities for the community was early childhood services and support, with a parcel of land on the Yarrabilba State School site identified as a potential site for a community-focused facility. In February 2018, the Queensland Government committed \$3.6

million in capital funding for the delivery of the Yarrabilba Family and Community Place (YFCP) to provide health, education and community services to meet the community's needs.

The planning and establishment of YFCP was facilitated by the CHaPs program team. A cross-sectoral project steering committee was established to co-design a purpose-built facility and collaborative operational model. Through this process, it was agreed that the state-wide Children's Health Queensland Hospital and Health Service would operate the centre, supported by programs provided by other project partners such as Logan City Council and the Department of Education. This was seen as an opportunity to trial a new approach to service delivery for the state. The model was informed by best-practice case studies and the experience of the committee members in visiting a range of early childhood-focused service hubs around Australia.

The model of service focuses on a soft-entry approach, creating a warm and non-threatening environment that children and families can engage with at will. A primary focus was building foundational, trusting relationships with families to be able to support and empower them to self-identify and address more complex issues as they arise. Staffed by health professionals, the YFCP offers flexible health, educational and community services and activities which support the growth and development of children and families. The focus is on universal services that engage parents in non-stigmatising ways, which includes playgroups, health clinics and KindyLinQ, a play-based program providing early learning experiences that families can attend in the year before their child starts kindergarten (Cortis et al. 2009).

Importantly, the YFCP enables a range of services that would not normally be available at such an early stage of the Yarrabilba community's development lifecycle. An example of this is midwifery and child development services which, through the YFCP, can be scaled to demand and offered before a dedicated health service is delivered in later stages of the Yarrabilba PDA. The range of services will change over time to meet changing community needs and demographics.

Findings from the YFCP first-year baseline evaluation provided promising evidence that the model had a positive impact with parents and children accessing the health, early education services and social programs offered at YFCP (Deloitte Access Economics, 2020). Survey data demonstrated that over the course of a year, an increase of 25% of users agreed that families "know the services my family needs" and an increase of 30% agree that "I know how to access these services when my family needs them" (p. 21). Additionally, the co-location of the integrated services hub with the primary school was reported by families as being responsive to family schedules and enabling improved accessibility of services.

One of YFCP's unique features is the open-plan design of the facility, with one large main common area (203 m²) with a communal kitchen, casual seating, books and toys (Fig. 1). As part of the centre's soft-entry approach, families are welcome to use this space and access the kitchen at any time, without the need for an appointment or to be attending an organised program. The post-occupancy evaluation, undertaken to review the effectiveness of building design and functionality, found this feature,

supported by a mix of informal and formal meeting and consultation spaces, to have contributed to the success of the approach (Fulton Trotter Architects, 2020).

The Year Three Evaluation of Yarrabilba Family and Community Place (Deloitte Access Economics, 2021) identified the soft entry model as a key enabler of high-quality service delivery. It highlighted how the wrap-around and co-location of services is facilitating increased information sharing among services resulting in more timely and holistic support for families in Yarrabilba. For example, 71 children received an earlier diagnosis or referral than they would have if YFCP did not exist. Nearly 70% of service users reported an improvement in social participation, which was seen as a major benefit as many families moving to the region had limited social support networks and were at high risk of social isolation.

This independent three-year evaluation of the YFCP re-confirmed the first-year baseline evidence and highlighted that the most significant longer-term impact of the model is the ability to reach families who otherwise would not have engaged in health, education, or social services.



Fig. 1 Yarrabilba family and community place (Image by CHaPs)

The Buzz at Yarrabilba Demonstration Project

Lessons from the YFCP initiative were used to inform subsequent collaborative social infrastructure planning and investment approaches in Yarrabilba. A key lesson from YFCP implementation was that more time between the initial funding announcement and the building's construction would have been beneficial to fully explore all the potential service delivery partnerships and confirm operational funding arrangements prior to the facility opening. With no delivery timeframe set, the Buzz at Yarrabilba project, discussed below, presented an opportunity to take a more staged approach.

In 2018, CHaPs identified an opportunity to consider service delivery and facility partnerships across a precinct consisting of state and Catholic secondary schools, the first Logan City Council district community centre, sports fields and a small neighbourhood retail centre. Exploratory discussions started with land-owning agencies before the delivery timeframes for the two secondary schools were even confirmed. Around the same time, the Queensland Government committed funding for a neighbourhood and community centre in Yarrabilba. The proposal of a shared facility to deliver integrated services for young people and the broader community on the Council site emerged following a range of workshops, including a precinct master-planning process.

During 2019, a cross-sector project steering committee developed the proposal further and in January 2020, CHaPs delivered a collaborative investment business case involving the Queensland Government, Logan City Council, Brisbane Catholic Education and Lendlease (the land developer). This secured support for the delivery of an integrated services community hub in 2022. Developing the business case included a community needs analysis and research on best practices. The business case ultimately recommended a particular approach to ownership, capital and operations funding, and outlined an operational and governance model. The business case also proposed partner agencies' roles and responsibilities in an implementation plan.

The investment model includes a mix of capital and operational contributions secured from all parties, with the agreed community outcomes of 'connecting, learning, earning and innovating' (see Fig. 2) providing a strong basis for all partners to demonstrate alignment of objectives and guide implementation decisions. The core operating principle of The Buzz at Yarrabilba hub is the integration of the partners' service delivery priorities through the appointment of a single Hub Operator with responsibility to coordinate the delivery of programs and services to achieve positive outcomes for the community.

The Yarrabilba State Secondary College and San Damiano Catholic College are active partners in the project, seeing significant benefits in programs, activities and support services for young people under the "connecting, learning and earning" themes. Innovation is also a high priority for the schooling partners, with entrepreneurship programs already on offer at the Yarrabilba State Secondary School. Each partner will have access to the hub to offer programs, and the schools intend to use the space for joint programming, extending the range of courses and activities available for their students through a partnership approach.

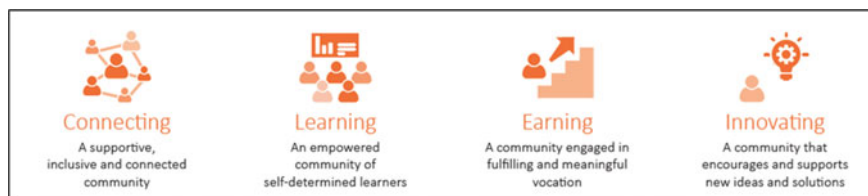


Fig. 2 The Buzz at Yarrabilba community outcomes framework (Institute for Social Science Research, 2020)

Because an early planning process was initiated in 2018, well before the schools opened, both were able to be master planned with community use and accessibility across the hub precinct in mind. For example, the Yarrabilba State Secondary College hospitality facilities are easily accessed from the street and closely link to the hub site, providing potential for out-of-hours training and for students to gain industry experience by catering for hub events. The sports halls and performing arts buildings have also been located to provide the best opportunity for community use after hours. The oval on the San Damiano Catholic College site has also been positioned to support community access.

Partnerships: Focusing on Alignment of Partner Agency Objectives and Outcomes

Given the CHaPs program did not have a dedicated infrastructure funding budget, the CHaPs approach focused on aligning individual and shared partner agency objectives and securing commitments for delivery of community hub projects. In particular, establishing a shared vision and defined outcomes, and continuing to refine these over the planning and implementation phases, has provided a strong foundation for collaboration.

The proposal for the YFCP was closely aligned with the Department of Education's focus on supporting positive early childhood development and the department's strategic objective to "engage early with families and children to give them the best start" (Department of Education & Training, 2017, p. 6). However, the funding submission also built on the relevance of the project to the Queensland Government support for the Logan Together movement, which is applying a collective impact approach to improve the wellbeing of children. The government commitment for the Logan Together roadmap, which included goals to provide accessible and integrated community services and community hubs, provided the authorising environments for agencies to pursue new integrated services approaches in Yarrabilba (Queensland Government, 2017, p. 3).

For The Buzz at Yarrabilba hub, the alignment between Logan City Council's objectives for a community centre and the Queensland Government's Neighbourhood and Community Centre program led to the Department of Communities, Housing and Digital Economy becoming a core operational and capital funding contributor for the hub. Both organisations have objectives to strengthen communities and improve health and wellbeing outcomes through provision of community infrastructure (CHaPs, 2019).

With six partner agencies, defining the community outcomes of “connecting, learning, earning and innovating”, along with associated indicators, has been an important process to ensuring each partner can see how their objectives will be addressed through the hub's operations. The outcome indicators will be incorporated into the contract, with the hub operator allocating responsibility for coordinating programs, services and community access. This has also helped to demonstrate the synergies across the four themes, reinforcing the value of the unique partnership of community, education and employment interests. For example, volunteering supports community connections and is a first step to building skills under the learning and earning themes.

Investment: A Staged Approach to Decision-Making

There are many options for the ownership, operations, governance, and funding of community hubs to be explored with prospective hub partners. To ensure that each agency was able to dedicate the resources required for detailed planning, The Buzz at Yarrabilba hub model was progressed through three decision-making stages with the following documentation provided for senior executive endorsement:

- a high-level project proposal recommending that a model for a shared community and education facility be developed by a cross-sector project steering committee
- a collaborative investment business case setting out the rationale for investment, the proposed operational, governance and funding model, partner agency contributions and the implementation plan
- a facilitation agreement providing an overarching legal framework for the design, construction, funding, tenure arrangements, operation and use of the hub.

This process has allowed for an increasing specificity of the arrangements for delivery of the hub to be developed at each stage, with representatives from project partners able to engage, in good faith, in detailed negotiations with the endorsement of their senior executives.

Collaborative Planning: Strategies Supporting Delivery of Schools as Community Hubs Projects

Government policy frameworks increasingly promote a more joined-up and collaborative approach to state government service delivery, but in practice there are significant systemic barriers to this occurring. These include insufficient visibility of service planning and needs assessments across government agencies, different thresholds and timelines for investment in infrastructure and services, and the inflexibility of traditional funding and operating models. Funding guidelines for services generally apply on a state-wide basis for consistency in program reporting and performance monitoring, which can mean there is little flexibility to tailor service agreements to place-specific models. Collaborative projects involving schools have the added complexity of providing social and community services for adults whilst assuring stakeholders that due regard has been paid to the safety of students.

The following strategies were useful in overcoming the barriers to planning and delivering a network of integrated community services in Yarrabilba.

Broad and Early Cross-Sector Engagement to Identify Service Needs and Collaboration Opportunities

Prior to identifying the specific project opportunities in Yarrabilba, CHaPs organised a series of workshops and forums to enable cross-government and cross-sector discussion on planning for social infrastructure and services in Yarrabilba. These forums brought together representatives from Commonwealth, state and local government, the land developer, non-government social service organisations, the schooling sector and local community service providers.

Benefits of this broad engagement and information sharing approach included:

- The information shared on the pipeline of services and infrastructure planned for delivery in Yarrabilba informed the timing of collaborative projects. For example:
 - the construction of stage 2 of the Yarrabilba State School presented an opportunity to deliver the YFCP as an additional facility on site in a cost-efficient way
 - with both the state and Catholic education sectors commencing planning for delivery of their first secondary schools in the same precinct, a working group was initiated to explore collaboration potential, resulting in the initiation of The Buzz at Yarrabilba hub early in the design and planning of both schools.
- Limited demographic data was available for this emerging community. Real-time information from the non-government sector, with on-the-ground experience of the challenges faced by families and children, was important to demonstrate the need for Queensland Government investment in the YFCP.

- Relationships were established with a range of key organisations that ensured the right representatives could be invited to be involved in project scoping and initiation. Additionally, key champions for projects emerged from outside the Queensland Government and were instrumental in securing support and project resources.

Providing Leadership and Neutrality

The CHaPs program provided strategic leadership and resources that were key to moving the projects from ‘a good idea’ to delivery. This included:

- establishing and leading project governance, ensuring the right organisations were represented in the planning and establishment phases
- detailed project implementation planning and reporting
- developing customised project outputs, for example drafting the business case for The Buzz at Yarrabilba, which responds to partner agency programs
- problem solving and negotiating between partners, for example negotiating a lead agency to operate the YFCP
- expertise in customising funding and contracting to support planning activities, for example the concept planning to develop costings for The Buzz at Yarrabilba
- providing seed funding for early concept design work, to aid buy-in from partners.

As CHaPs did not have an operational role in the delivery of services, it was perceived as having the neutral objective in negotiations of supporting improved community outcomes through integrated service delivery.

The need for this role was most critical in the planning and implementation phases of a project when partners’ roles were still being negotiated. Without this facilitation role, the collaborative projects may have stalled, as no single agency was responsible for driving the concept development. In the establishment phase, where the lead roles were agreed for delivery and operations of the facility, CHaPs transitioned project leadership to the partner agencies.

In circumstances without an external project facilitator, clarifying the project facilitation responsibility and recognising the resources required to bring together a collaborative social infrastructure project would be an important first step for project partners. As the CHaPs program continues to evolve, the templates and tools developed from demonstration projects such as the YFCP and The Buzz at Yarrabilba are being made available to support other projects.

Conclusion

Global and local trends, stresses and impacts over the past two years, including the COVID-19 pandemic and savings and debt measures, have highlighted an urgent

need to maximise investment in the state's social infrastructure. There is growing understanding that the quality of social infrastructure is inextricably linked to the accessibility and impact of the essential services and programs needed to support quality of life and economic prosperity.

It is now more important than ever to move beyond standalone, sector-specific asset planning to integrated planning. It is also critical that service delivery organisations have the partnership and planning capabilities required to deliver fit-for-purpose, productive social infrastructure and services.

These emerging priorities have underpinned a refocus of the CHaPs program to enhance reach and impact across Queensland post-pandemic and leading up to the Brisbane Olympic and Paralympic Games in 2032. The CHaPs program will continue to support cross-sector partners and stakeholders through an advisory role that draws on the strategic learnings, tools, templates and processes developed over the previous seven years of CHaPs program delivery.

The demonstration projects outlined in this chapter are not only benefiting the communities where they are located, the learnings are also helping to build capability and inform government infrastructure policies and strategies. Working with stakeholders and other jurisdictions to understand and unblock systemic barriers to collaborative social infrastructure planning is the next step in maturing the CHaPs program. In accordance with the original intent of the program, supporting positive community outcomes through partnerships, co-location and integration of community infrastructure and services will always be at the heart the program.

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Rear Vision: Lessons from Community Education in the 80s



Martin Brennan

Abstract This chapter presents an historical framework of community education concepts through its roots in the USA and a 1980's Australian example of a school as a community hub: Princes Hill School Park Centre. The writer's reflective narrative reveals experience of a rich history of interaction between schools, communities, and local government and how the concept of community education expanded from community use of school facilities to community empowerment and resilience. In the context of reviewing the current largely untapped potential of schools as community hubs, the term 'rear vision' emerged, reflecting a sense of 'looking back to look forward'. The experience of community education in the 1980s in Australia and the USA, informs how 'schools as community hubs' can embrace the building of new connections. In the 1980s the Princes Hill School Park Centre adopted a community empowerment model reflecting the need to move beyond the use of school facilities and instead radically engage the school, community and the local government in a range of activities that promoted and facilitated participatory decision-making. The history of the community education movement provides evidence that broadening the role of schools beyond the use of their facilities can build connections, resilience and empower communities.

Keywords School community · Empowerment · Connectedness · Resilience

Introduction

In 1978, I was appointed as the Community Education Officer for the Princes Hill School Park Centre (PHSPC), Melbourne, Australia. The role was to move the PHSPC beyond the use of school facilities and radically engage the school, community and the local government in programs and projects that fostered participatory decision-making. The PHSPC adopted an empowerment model that opened the

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school to the community and engaged the local government in place-based neighbourhood decision-making. My story reveals a rich history of interaction by the school, community and local government and is an example of the potential of a school as a community hub.

The school community movement in the USA was founded in Flint, Michigan in the early 1930s in response to the impact of economic decline. This resulted in a range of issues, including unemployment, crime, youth delinquency, property damage to public buildings and increased community tensions, leading to an unstable and unsupported school system. Over the following decades, Community Education fostered a partnership between school districts and local authorities and delivered lifelong learning through adult education programs and recreational activities. This was seen as an important part of a community's educational process in a changing society. Hiemstra noted at the time that 'in Flint, Michigan, many traditional community school directors are now called community education agents and they are responsible for designated advocacy areas, such as parent involvement, health, academic support, and neighbourhood development and safety' (Hiemstra, 1972, p. 24).

Michigan Roots, Melbourne Beginnings

In 1974 the Recreation Superintendent of the City of Melbourne visited Michigan, USA, to research what many in the community education movement saw as the birthplace of Community Education. The City of Melbourne subsequently promoted the role of the city in community education with a focus on adult education and recreational pursuits. The following year the Victorian Liberal Government recognising the need to facilitate community use of schools amended The Education Act to become The Education (Schools Councils) Act 1975. When combined with the Youth Sport and Recreation Act 1972, this handed schools the power to enter into agreements for community use of school facilities.

In that same year, a public meeting of the Princes Hill and Carlton communities was held in the theatre of an inner-city suburb of Melbourne. The meeting adopted a constitution establishing the Princes Hill School Park Centre (PHSPC), a joint initiative of the Princes Hill High School Council, the Princes Hill Primary School Council and the Melbourne City Council. The PHSPC derived its name for its educational and recreational role from the contribution of school buildings and facilities and Princes Park, by the City of Melbourne. A Committee of management was elected comprising school community representatives, nominees from the staff of both the schools, and a City Council representative.

Since it first came into use in Australia in the early 1970's the term community education has been made synonymous with adult education, non-formal education, parent participation in schools, community development, improved use of community resources and so on. (Townsend, 1990, p. 61)

Many in the Australian education sector in the 1980's viewed community education as school-based adult education, reflecting the North American influence. However, this changed over coming years to 'the identification of needs, wants and problems in a community' with an emphasis on participatory decision-making in the provision of services, programs and facilities (Townsend, 1990, p. 62).

The establishment of the PHSPC in 1974 reflected the early definition of community education being the community use of school facilities for adult education programs and recreation activities. But the late 70s and early 80s were periods of economic, social and political change and community education became less focussed on adult education, recreational activities and the use of school facilities, moving towards the development of strategies for the empowerment of communities through the interface of school and community and the strengthening of community participation in local agenda setting and decision-making.

Changing Times

The political scene was volatile during this period as reflected in the sacking of the Melbourne City Council in 1980 by the State Government and the appointment of Commissioners with the aim to stall the rise of progressive residential candidates and their election to a central business district dominated Council. The economy generally was suffering from high inflation with high levels of unemployment alongside increases in industrial disputation. The earlier dismissal of the democratically elected Whitlam Federal Labor Government in 1975 was the most dramatic event in the history of Australia's federation. When elected in 1972 as the first Labor Government for twenty-three years there was a national mood of hope and anticipation and it continued to enliven many in the community who were now seeking ways to realise the benefits that could be derived from a more active, influential and empowered community. The election of the Melbourne City Council in 1983, following the sacking of the previous council resulted in an increase in residential representation. The council sought to grow the social and environmental capital of the city and respond to the needs and aspirations of the community. Change was in the air, with an increasing realisation of the need to bring the community into education, welfare, arts, recreation and public housing. School governance had shifted toward greater autonomy with the introduction of school councils with control of school finances, school policy and curriculum and the participation of parents, teachers and students in decision-making. Princes Hill Primary and High schools, through the PHSPC were at the forefront of these changes supported by the Federal Government.

Earlier in 1973, the Whitlam Federal Labor Government had established the Schools Commission as its education policy making agency to reform the role of the Government in the educational system and introduce a needs-based assessment of schools. The Commission was an election promise of the incoming government with its aim to promote equality of outcomes and opportunity and progressive teaching for

citizenship. The Interim Committee for the Australian Schools Commission in 1973 reported that ‘the aim of schooling is not to prepare people for school. Rather it is to prepare them for living in society (Balmer, 1975, p. 35). It sought less centralism and ‘more diversity in education’ and ‘for the school to be more open to society’ (Balmer, 1975, p. 28). Reports during the seventies by the Schools Commission were significant in promoting a changed view of schools and the importance of participation that has ‘intrinsic value as it teaches the skills of give-and-take, of power relations, and of planning and working towards goals’ (Beacham & Hoadley, 1981, p. 12).

The mood of the times was also reflected in parent-initiated publications with titles such as ‘Techniques for Participation in Decision Making for Previously Uninvolved Groups’ (Beacham & Hoadley, 1981). Such publications grew from not formal research but from ‘talking, talking with many parents, listening to them generalise their experiences with each other, listening to them realise that their experiences are not unique’ (Beacham & Hoadley, 1981, p. 7). There was an emphasis on the role of the parent in school decision-making and the education of children. ‘Parents make powerful allies and dangerous enemies’ (Beacham & Thorpe, 1980, p. 14). While substantially focused on equity of educational opportunity, such publications also reflected the broader issue of social inequality.

The Schools Commission introduced the Disadvantaged Schools Program in 1974 to provide extra funding to those schools with the poorest students. Jean Blackburn, Schools Commissioner responsible for the Disadvantaged Schools Program, believed that the program ‘does not attempt to impose answers but rather to engage people in the power and responsibility of finding their own’ (Campbell & Hayes, 2019, p. 231). Princes Hill High School and Princes Hill Primary School were designated Disadvantaged Schools. Both primary and high schools reflected a diversity of community that included recently arrived immigrants, Indigenous and locally born residents. Yabberstick, the student high school newspaper, reflected this diversity but also sought a joined-up school community through an inclusive attitude and an openness to issues beyond the school curriculum. ‘Yabba is an aboriginal work meaning speech and a Yabberstick was a stick which an aborigine of one tribe was required to carry with him when visiting another tribe’ (Vlahogiannis, 1989, p. 182). Amidst articles and letters on issues such as work experience and sport, topics such as racism were also featured with articles like ‘Racism in Australia’ (Grimshaw, 1981, p. 4).

Much of the thinking on empowerment at the time, including my own, had its roots in the work of the American community activist, Saul D. Alinsky and the lessons he had learned throughout his experiences of community organising. His guide ‘Rules for Radicals: A Pragmatic Primer for Realistic Radicals’ published in 1971 set out how to run a movement for change. While Alinsky’s guide aimed at uniting low-income communities in Chicago to gain political, social and economic power, the lessons were transferable beyond the United States and to the field of education. He provided lessons on how to create powerful and active organisations through the sharing of social problems to increase resident awareness of their commonalities and thus their capacity to seek change. Importantly he understood the role of working within to create change, the value of first-hand experience and the power of grass roots action. Each of these was central to the emergence of schools as community

hubs extending beyond adult education and recreational activities toward community empowerment and the expansion of the role of schools within their communities. Alinsky believed that as an organiser ‘I start from where the world is, as it is, not as I would like it to be...that means working in the system’ (Alinsky, 1971, p. xix). Such thinking provided a rationale for those working in Community Education to seek change by forming alliances and empowering the community.

Architects for Change

The stage for the establishment of the PHSPC was set not only by growing awareness of social inequalities and more general political and social change but also by the unique design of Princes Hill High School. A fire destroyed the school building in 1970. Uncertainty and disarray followed until a delegation of parents, teachers and residents joined together to demand action and a new building was approved to go ahead immediately. The urgency of the problem and its potential political consequences led to the commissioning of private architects for the first time by the Victorian Department of Education. Since 1885 the Department had relied solely on the Public Works Department to design schools. The new building was designed by architects Daryl Jackson and Evan Walker who had a reputation for expertise in school design. Earlier Walker had toured Britain, Canada, Russia and Sweden on a study tour made possible by private sector funding. His brief was to ask planners how they planned—‘to what extent for instance, they consulted outside government offices and used experts other than architects, and conferred with the pupils, teachers and citizens who after all use the schools’ (Walker, 2014, p. 226). Central to Walker’s report was the possibility of school buildings being resource centres for the whole community. The design for Princes Hill High School gained them the Royal Australian Institute of Architects’ Victoria Architecture Medal for ‘the outstanding building’ of 1973.

Jackson and Walker had been presented with a challenging brief. ‘It can be confidently asserted that Princes Hill’s new building bore no relation whatsoever to what the Education Department officials or the representatives of Princes Hill High School would have expected’ (Vlahogiannis, 1989, p. 38). While the architects conceived the basic concept, the final design grew out of consultations between the architects and the broader school community. The community was open to new ideas and embraced the architects’ design philosophy. ‘If a place is to work as an educational centre it is vital that people who use it have a say in its shape. They even have to be involved in making mistakes’ (Walker, 2014, p. 226).

Unlike the usual school design at the time, the new Princes Hill High School building design focused on a sense of openness and flow with the potential for accessibility to a wide range of users. Its unpainted concrete Brutalist form with bold interior colours created a non-school atmosphere. Common hubs of interest were created rather than arbitrary locations of classrooms. The theatre and the library were at the core of the building design. The library on the second floor was surrounded by high user classrooms while the theatre and canteen led off a wide foyer area located

on the ground level that was seen as ‘the social heart of the school’ (Vlahogiannis, 1989, p. 39). The openness of the foyer area encouraged and facilitated community use. The theatre for example, was designed for a range of uses apart from theatre productions, including film, exhibitions, social functions and community meetings. The architecture welcomed the community.

Within this social, political and design framework, I was appointed Community Education Officer by the PHSPC in 1978. I was the first Community Education Officer to be appointed under the auspice of the Princes Hill High School Council and paid for by the Education Department. The role was to adopt a community development model and explore and capitalise on the interface between school and community and develop programs and activities that responded to the interests, issues and needs of the school community. The Centre was to move from a centre of adult education to a centre that prioritised community outreach, empowerment and the participation of the school community in the governance of their schools and the wider community. In May 1981, those attending the First National Community Education Conference, Southport Queensland were reminded of the move toward community empowerment in an address by Sugata Dasgupta titled ‘Community Education as a Concept for a New Society’. In her address, Dasgupta stated ‘Community education should be a new movement for social transformation, for a new policy, a new society and a new economy’ (Dasgupta, 1981, p. 65).

Radical Rules in Action

In 1983 I undertook a reciprocal exchange to St Ignace, Michigan, USA as Community Education Director for Straits Area Community Education. As in Melbourne in the 1980’s, the role of Community Education in the USA had moved from a focus on adult education and recreational activities to support participation in both school and community. Community Education within the Straits Area Schools District was not immune from this move to empower the community. Straits Area Community Education functioned across a consortium of primary and secondary schools and provided adult education classes to those needing to complete their high school education as well as develop skills which would best fit future employment opportunities. However increasingly the program expanded its role. The Title IV Indian Education program provided Native American families with access to cultural activities and language skills both in school and the wider community. In addition, the Straits Area Community Education program provided educational and life skills support to young offenders in a local juvenile detention facility. These federally funded programs provided the opportunity to support the participation of marginalised groups in the community.

When I arrived in St. Ignace, I found grassroots community activity being taken on board by the Straits Area Community Education program and was encouraged to respond with my Melbourne experiences and expertise. A central example of applying Alinsky’s ‘rules’ was the establishment of a community run cable television

station that promoted not only local football games, but also local politics. The St Ignace City Council election was given greater coverage through the community television station that was beamed into every home. A meet-the-candidates event at a local family restaurant resulted in increased voter turn-out beyond that previously experienced. The community was ripe for participatory decision making at the school and community level, and the Straits Area Schools District Board was swept along by a wave of 'empowerment that had its roots in an American tradition' (Osborne & Gaebler, 1993, p. 51).

On my return to Melbourne in 1984, my Michigan experience aided my contribution to the PHSPC and its continuing efforts to be at the forefront of the community education movement. The PHSPC initiated and fostered a range of projects, programs and activities drawing on the support of the school community including marginalised residents and those who previously had no interest in the schools apart from having their children attend. The non-school settings and the broader range of programs reflecting their interests and needs encouraged greater interest and participation in both the schools and the community. The PHSPC was open seven days a week for a diverse range of school community activities, a full time City of Melbourne Recreation Officer based at the PHSPC provided after school and holiday programs and sporting activities, whilst the Council for Adult Education introduced adult education classes of particular interest to local residents.

Extending beyond the classroom, community artists and writers were contracted to undertake creative activities with the school community and build connections across the diverse community. 'Curtains for Carlton' a community arts project led by an artist produced a curtain comprising a tapestry of squares hand made by individuals, local groups and agencies. It was hung in the Princes Hill High School cafeteria. The well frequented cafeteria provided before school breakfasts, lunches and was a social venue for evening dining for local families. The Centre became a sought-after venue for a range of cultural and ethnic groups for regular functions and special events. In keeping with its *modus operandi*, the PHSPC expanded its operation beyond school buildings to off-school site locations including the park, an abandoned railway station, a Housing Commission flat and a former kindergarten and warehouse. Community issues such as youth employment and public housing needs found a new forum through a community newspaper and activated submissions to the city council.

Innovative responses relevant to the times focussed on community engagement to address local issues, needs and interests. Building connections across the community became the *modus operandi* for the Centre. The high level of youth unemployment was a major issue that bedevilled the Australian economy and impacted on young people, families and the local community. The PHSPC enabled several linkages between school and post school that addressed this issue. The establishment of 'The Island' in an off-site former kindergarten, provided students experiencing learning difficulties a full-time structured setting with trade, craft and art skills to complement their time in the school classroom. A youth drop-in centre was set up in a former warehouse, locally called 'One C One', to cater for school leavers and provide a place

to socialise whilst gaining post school advice on jobs, training and tertiary education. During school hours it functioned as a drama, film and television facility for high school students. This school-based program funded through the Disadvantaged Schools Program, enabled students to gain experience and skills in theatre and media. The success of several media projects resulted in the students being asked to undertake an episode of the ABC TV current affairs program, *This Day Tonight*. One C One also housed a weekly acoustic music venue that drew in a wide cohort of musicians and audiences. It linked the School Park Centre's support to a growing live music industry in Melbourne that attracted local, national and international musicians.

A locally based and owned community newspaper, *City Alternative News* (CAN), became a voice of the community and, monthly, was distributed across Princes Hill and Carlton highlighting issues and interests and supporting local community networks. The abandoned North Carlton Railway Station became a focus of community action and CAN lobbying of the State Government and the Melbourne City Council for its use as a neighbourhood house (Brennan, 1980, p. 1, *City Alternative News* 1980, p. 1). Protracted negotiations led to an unofficial Grand Opening in the Railway Station in April 1984. 'We wanted to get our fingerprints on it; to get the community's hands into the building' (Brennan, 2011). As a result, the PHSPC was offered the North Carlton Railway Station Neighbourhood House at a peppercorn rent. In partnership with the locally based Montemurro Bocce Club, the Station was restored for use as a neighbourhood house with a bocce court and barbeque for the Italian community and a place for children, families and friends to be supported in their daily lives.

The Neighbourhood House subsequently supported the establishment of a community flat on a nearby Housing Commission Estate that provided residents with a platform for addressing their issues and interests and a steppingstone into the activities at the Neighbourhood House that included childcare, after school and holiday programs and evening barbeques and bocce plays. The widespread community concern that the needs of residents were not being met, especially for those living in public housing, resulted in extensive community consultation with a focus on welfare services and childcare and resulted in a submission to the Melbourne City Council. The submission titled *A Case for Carlton* contained overwhelming evidence of the need for expanding and improving the planning and delivery of community services provided by the City of Melbourne.

Looking Back to Look Forward

In August 1979 the Australian Association for Community Education organised the Third International Community Education Conference in Melbourne, Australia—'Here come the 80's! Community, Participation and Learning'. A range of workshops, importantly led by practitioners, addressed the need 'to look at the who, what, when, where and how of education which is responsive to the community needs of the

1980's' (Australian Association for Community Education, 1979, p. 3). The conference theme, 'Community, Participation and Learning', provided the framework for future directions. Community, participation and learning continues to resonate in our contemporary world which will be increasingly confronted by stresses and shocks be they the result of increasing population growth, environmental damage, extreme weather and climate related events, social inequalities, economic disruption or pandemics. Through the planning, design and operation of schools as community hubs we can empower communities and foster justice, equality and access to decision making that impacts on both the individual and community.

While the learning drawn from Michigan and Melbourne in the 1980s can be seen as specific to the times, many lessons are transferable to today. Looking back, we can see how the school as a community hub is 'about empowerment, about helping people to gain power over their own lives, thereby working towards a more equal distribution of power in our society' (Townsend, 1990, p. 62). The success of the PHSPC through the collaborative approach by Princes Hill High School, Princes Hill Primary School and Melbourne City Council contributed to community initiated, planned and led responses to the needs and interests of the school community. Together with new and innovative educational thinking at a national and state level, this resulted in the local operation of the school as a community hub. This thinking was embedded in the design of the Princes Hill High School through a process driven architectural response that differentiated its functioning from the traditional school building. The access provided by the PHSPC to a public park, a former railway station and warehouse encouraged the school community to protect and utilise those public assets for the common good. The school community was supported by staff of the PHSPC and its representative local committee to seek a voice of its own through a locally produced and distributed newspaper and participation in community arts activity that focussed on its own local stories. And importantly the international experience provided confidence in the work that was being undertaken and its successes.

The dynamism generated through the PHSPC was the result of a range of inter-connecting factors. The leadership provided by the PHSPC committee, comprising parents, residents, teachers and the local ward Melbourne City councillor, initiated opportunities for engagement with the schools and community on local needs and issues. Funding was made available by local, state and national governments for community education projects that built partnerships across a diverse range of interests. The ability to engage politically to resolve these issues contributed to community cohesion and confidence in the participatory process.

As we seek to build our resilience to environmental, economic and social challenges we will need to develop anticipatory and participatory ways and means to ensure we come out better from crises such as the COVID-19 pandemic. Schools as community hubs, building connections that pivot on the interface between the school community and local government and empowers individuals and their communities in decision-making should be one pathway that will help to secure our collective future.

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Nature as Partner: How School Communities Benefit from Ecological Connections



Cynthia L. Hron 

Abstract How have schools partnered with nature—as an architectural influence and pedagogical framework—to improve the campus experience for their communities? Influenced by John Dewey’s web of life concepts as a position to consider the interrelations between schooling and life, this chapter explores the benefits to schools and their communities of partnering with nature to support academic, physical, and mental well-being. Dewey believed that public education had a fundamental responsibility to support young people to understand the world around them. Public-school examples in the United States are discussed, as shaped by green infrastructure initiatives; ecosystem services; biophilic design; and community hub constructs. In this context, the motivations of stakeholders to develop partnerships between schools and nature are identified and were found to relate to desires for environmentally sustainable infrastructure, developing community networks—socially and ecologically—and delivering health and wellbeing benefits for students, teachers, professional staff, and members of the broader community.

Keywords Nature · Schools · Green infrastructure · Ecosystem services · Biophilic design · Community

Introduction

What choices would we make about school facility design if we started over? Following a devastating tornado in 2007 that destroyed 95% of the town’s infrastructure (Bickel, 2017) the town of Greensburg, Kansas faced this question—including the Kiowa County School District (Fig. 1). Greensburg’s residents could have rebuilt their community as it had been, instead they adopted a more sustainable approach. In

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Fig. 1 Greensburg, Kansas, following the tornado (Photo by Greg Henshall for FEMA)

the months that followed, federal¹ and state agencies helped the town establish long-term recovery goals, and the United States Department of Energy and the National Renewable Energy Laboratory joined community leaders, business owners, and residents to devise ways to integrate sustainable building practices into the town's new infrastructure. Together they formed a non-profit organization, the Greensburg Green Town, to aid development of a master plan and to procure resources to support the rebuild.

A New Vision for a Sustainable Community

By May of 2008, the community had created the Greensburg Sustainable Comprehensive Plan. This plan aimed to develop a “truly sustainable community ... that balances the economic, ecological, and social impacts of development” (United States Department of Energy, 2012, p. 10). Through this process the residents of Greensburg acknowledged the importance of the natural environment to their long-term goals and identified the need to incorporate sustainable practices into their recovery efforts. They recognised that to rebuild their town meant more than structures and that green development could provide the infrastructure needed and generate a more vibrant

¹Federal Emergency Management Agency (FEMA) Following the devastation of the tornado, FEMA worked with Kansas State Government and the Environmental Protection Agency to draft a Long-Term Recovery Plan, finalized, and presented to Greensburg residents August 15, 2007.



Fig. 2 The Kiowa County Schools designed by BNIM Architects (Photograph by Assassi)

and liveable community; one that balanced economic recovery and growth with community health and wellbeing.

Part of this vision included the adoption of an ordinance that all city-owned buildings over 4000 square feet (371.6 sm) must be designed to Leadership in Energy and Environmental Design (LEED²) Platinum rating certification standards, providing a minimum 42% energy saving (United States Department of Energy, 2012). Working with BNIM Architects, stakeholders of the Kiowa County Schools district, including students, played an important role in consolidating a new school into a single location on Main Street, where shared use facilities could be made accessible for adult education and senior citizen activities (BNIM, 2010a). A large K-12 school was developed of 125,000 square feet (11,613 sm), featuring 23% renewable energy produced on site and 72% energy savings compared to typical existing schools.³

Today, Kiowa County Schools (Fig. 2) features an onsite wind generator, closed loop ground source heat pump and fluid cooler, and energy recovery ventilators. Buildings have been sited to take advantage of natural daylight and passive solar gains by season. Students view native prairie grasses and windmills from classroom windows, exposing them to local ecology and renewable energy production (BNIM, 2010b). Underscored by near perfect ratings for water efficiency, indoor environmental quality, innovation, energy and atmosphere, the school was LEED Platinum certified in 2011.

² United States Green Building Council is a non-profit organization that oversees LEED certification process and standards, based in Washington, DC.

³ Kiowa County Schools' energy savings were featured as a case study for *Advanced Energy Design Guide for K-12 School Buildings: Achieving 50% Energy Savings Toward a Net Zero Energy Building* (ASHRAE, 2011).

Community-Informed Decision Making

The development of Kiowa County Schools cannot be discussed outside its context. It is the product of a community informed decision-making process in response to devastation by nature's forces, but also empowered by partnering with nature to rebuild infrastructure and community. School siting places the school as social centre. School building and landscape design reinforce connections to local ecology with native planting, views of Kansas prairieland in the distance and, energy and watershed practices demonstrated on campus. This example demonstrates the co-benefits of architectural influence and pedagogical framework to create a learning landscape that supports young people in understanding the world around them.

There are over 98,000 public school facilities in the United States on over 2 million acres (809,371 ha) of land (Filardo & Vincent, 2017). Public schools are uniquely situated to provide contact with nature and demonstrate community scale environmental stewardship. Studies from several disciplines support the hypothesis that contact with nature is good for people, especially children (e.g., Berman et al., 2008; Berto, 2005; Bowman et al., 2016; Danks, 2010; Dewey, 1943; Dymont & Bell, 2007; Louv, 2011; Orr, 1994; Razani et al., 2018).

Dewey's Web of Life

Over one hundred years ago, philosopher John Dewey proposed that schools had a fundamental responsibility to aid young people in understanding the larger world, prepare them for citizenship and active engagement in the social, spiritual, and intellectual aspects of community life. This meant that pedagogical practice needed to connect school to home, be experiential, and interdisciplinary. Learning needed to build on itself to construct mental models and inform decision making. Schools as social centres, he advocated, should bring people together, promote empathy, and facilitate understanding of difference (Dewey, 1902). Dewey advocated for distinctive facilities with school buildings designed in connection with the grounds to reflect each community's educational vision (Wirth & Bewig, 1968). Dewey's work co-occurred with other influential social movements and activists: the City Beautiful Movement, an architectural and landscape architecture response to deteriorating living conditions following Industrialization; Jane Adam's and Ellen Starr's Hull House, an early settlement house in Chicago offering multiple social services based on the model of Toynbee Hall in London's East End; and Colonel Francis Parker, director of the Cook County Normal School for Teacher Training, whom Dewey referred to as the *father of Progressive Education*. To Parker and Dewey, school was the training ground for good citizenship (Cooke, 2005; Gross, 2009). In essence, schools need to model the community they want to be.

Dewey's influence can be seen in many community school initiatives in the United States. The Coalition for Community Schools and the Institute for Educational Leadership advocacy groups have outlined a hopeful vision of community schools from a Deweyan perspective (Melaville et al., 2011). For a little over a century the community school movement in the United States has looked to Dewey's example of *school as social centre* (Blank et al., 2003). Common community school characteristics encompass family support centres, health and mental health services, early childhood and after school programs, adult learning, partnerships with businesses and civic groups, and shared use of facilities after school hours (Melaville et al., 2011). Expanding on the more traditional community hub characteristics are partnerships and initiatives designed to connect schools and school districts to their local ecology. Place-based education is described as immersion in local ecologies, cultures, and heritage as a foundation for studying math, language arts, and sciences (PEEC, 2004). In this way community school initiatives align Dewey's educational philosophy with experiential and interdisciplinary learning within the framework of citizenship and community life.

This chapter profiles five schools where stakeholders have made facilities design and curriculum choices that have created opportunities for students and community residents to bridge the relationship between schools and local ecology. Each example is unique to its context and provides insight into what practices are being implemented and how partnerships can be leveraged to advance schools as places to connect with nature.

Research Design

This chapter examines schools that self-identify as having green infrastructure, ecosystem services, biophilic design, and/or community hub characteristics. It also seeks to identify the stakeholders, partnerships, and design decision making processes that contribute to sustainable practices and, in turn, support health and well-being through connections to nature. Further, the chapter seeks to identify the co-benefits of school building and grounds design influenced by green infrastructure, ecosystem services, and biophilic design to forge connections between school community and local ecology.

School profiles were developed using multiple sources, including site visit data, informal interviews with school administrators and staff, project profiles created by architects, American Society of Landscape Architects (ASLA) case studies, Sustainable SITES Initiative (SITES) case studies, US Green Building Council's Leadership in Energy and Environmental Design (LEED) project profiles, Landscape Architecture Foundation (LAF, 2017) performance series, school websites, and journal articles.

Three themes related to community partnerships, focused on nature-based connections, provided a conceptual framework for developing the school profiles:

- Green Infrastructure (GI), as defined by LEED certification criteria.
- Biophilic design (Kellert et al., 2008).
- Ecosystem services, as defined by World Wildlife Fund (WWF).

Green Infrastructure (GI)

The Centre for Green Schools, a department of the US Green Building Council defines criteria for LEED certification and provides guidance and resources to schools interested in obtaining LEED certification. Their mission has three goals:

- Minimize environmental impact.
- Improve occupant health.
- Foster environmental and sustainability literacy.

In 2019, The Centre for Green Schools reported that 171 schools in the United States serving 90,000 students achieved LEED certification (Center for Green School 2020). The LEED certification process is highly structured and rigorous. A point system is employed for each credit and there are four certification levels. Projects are re-certified to maintain LEED status. A scorecard records points in each of the following categories: location and transportation; sustainable sites; water efficiency; energy and atmosphere; materials and resources; indoor environmental quality; and innovation and regional priority.

Biophilic Design (BD)

In his influential text, *Biophilia*, E. O. Wilson describes biophilia as being the innate tendency to focus on life and lifelike processes (1984). Before him Eric Fromm coined the term as *love of life*, and all that is alive (1973). Regarding biophilic design applications Stephen Kellert says, “Looking at biophilic needs as an adaptive product of human biology relevant today rather than as a vestige of a now-irrelevant past, we can argue that the satisfaction of our biophilic urges is related to human health, productivity, and well-being” (Kellert et al., 2008, p. 4). Kellert’s approach offers a new design paradigm he calls, *restorative environmental design*, fostering biophilic design applications that encourage contact between people, nature, and the built environment. He defines six biophilic design elements and an additional seventy biophilic design attributes summarized below (Kellert et al., 2008):

- **Environmental features** include water, air, sunlight, plants, natural materials, views and vistas, façade greening, geology and landscape, habitats and ecosystems.
- **Natural shapes and forms** include botanical motifs, tree and columnar supports, animal motifs, shell and spirals, arches, vaults and domes, simulation of natural features, geomorphology, biomimicry.

- **Natural patterns and processes** include sensory variability, information richness, growth and efflorescence, central focal point, bounded spaces, transitional spaces, integrated patterns to the wholes, and fractals.
- **Light and space** includes natural light, filtered and diffused light, light and shadow, warm light, spaciousness, spatial variability, spatial harmony, inside-outside space.
- **Place-based relationships** include geographic connection to place, historic connection to place, ecological connection to place, cultural connection to place, indigenous materials, landscape features that define building form, landscape ecology, integration of culture and ecology.
- **Evolved human-nature relationships** include prospect and refuge, order and complexity, security and protection, mastery and control, affection and attachment, attraction and beauty, exploration and discovery, information and cognition.

Ecosystem Services (ES)

Ecosystem services are the benefits that people get from nature. Since the Millennium Ecosystem Assessment (MA) was published in 2005, other studies have been published with alternative interpretations of how to both define and value ecosystem services. One response to the MA is the observation that the report needs to be more interdisciplinary in scope and address human well-being as an ecosystem service (Carpenter et al., 2006). A more recent study found an interest in defining intrinsic values as they relate to human-nature relationships (Flint et al., 2013). The MA provided the foundation on which the World Wildlife Fund (WWF) Living Planet Report 2016 defines four categories on how ecosystem services can be understood and identified:

- **Provisioning** products derived from nature: food, raw materials, fresh water, genetic, pharmaceutical and chemical resources, fertilizer, fodder, and energy;
- **Regulating** services provided by nature: air quality, climate regulation, water regulation, erosion regulation, water purification and waste treatment, disease and pest regulation, pollination, moderation of extreme events;
- **Cultural** services provide benefit to support mental and physical health, and include recreation and ecotourism, aesthetic values, spiritual and religious values; and
- **Supporting** services include photosynthesis, nutrient cycling, and soil formation.

Case Studies of Nature as a Partner

Following are four case studies of public schools in the United States. The schools are representative of urban, suburban, and rural locations. Each of the case studies demonstrate features of biophilic design, ecosystem services and community hub

Table 1 Case study overview

School	Type	Years	Students	GI	BD	ES	CH
Kiowa County Schools	Rural	K-12	433	X	X	X	X
Louis B. Nettlehorst School	Urban	K-8	700		X	X	X
Discovery Elementary	Suburban	K-5	591	X	X	X	X
Green School of Baltimore	Urban	K-5	150		X	X	X
Chester A. Arthur School	Urban	K-8	251		X	X	X

GI green infrastructure, *BD* biophilic design, *ES* ecosystem services, *CH* community hub

characteristics. Two of the case studies: Discovery Elementary and Kiowa County Schools (described earlier) represent new construction and significant green infrastructure as part of the school building and campus design. Three of the case studies work with existing infrastructure to achieve their missions: Nettlehorst School; Green School of Baltimore; and Chester Arthur School. Table 1 provides an overview of the five case studies.

Louis B. Nettlehorst School, Chicago

The outward appearance of Nettlehorst School is visually rich with exterior artwork, murals, linear gardens, chicken coop, and outdoor classroom along the perimeter of the building at the corner of Evanston and Broadway in the Lake View neighbourhood of Chicago. Bright colours and foliage stand out against the historical masonry building. There are two Works Progress Administration restored murals in the school's art collection, and several other artworks, inside and out, by local Chicago artists. Some of these projects were created in collaboration with Nettlehorst students.

History Established in 1892, the school is housed in an historical building designed by J. J. Flanders. In 1911, Arthur F. Hussander designed an addition to the school, and in 1937 a three-story wing was added to accommodate 2,200 students. Over the years Nettlehorst School has struggled with facilities conditions, declining enrolments, and academic achievement (Bachrach, 2012). The recent turnaround of the school is credited to an initiative that gathered parents, teachers, and community leaders to renew Nettlehorst School and revitalize the neighbourhood (Wilson, 2011).

Sustainability Initiatives Nettlehorst School is part of Chicago Public School's Sustainable Community School Initiative that encourages a place-based approach in which schools' partner with community-based agencies to support academic achievement, health and social services as well as encourage community and parental engagement (Oakes et al., 2017). The outdoor classroom employs the Nature Explore model, a data informed design, with curriculum resources and educator workshops.

School Community Benefits Nettelhorst School strives to be the centre of its community through contact with nature that facilitates topophilia and biophilic predispositions through community engaged programming inclusive of arts expression and urban centred gardening practices open to all residents every day, evenings, and weekends, while at the same time focusing on students with resources for health, social services, and academic attainment. Afterschool programming and adult education are offered. Expectations for students, families, and the school community are to take care of yourself, take care of others, and take care of our environment. In this way Sustainable Community Initiative schools become, or are enhanced to be, hubs of their communities.

Partners of Nettelhorst’s program commented: “The Nettelhorst School has taken an important leadership role in a profoundly needed initiative to connect young children with nature, setting a wonderful example for education centres across the country,” Susie Wirth, the Arbor Day Foundation. “Architecture for Humanity Chicago was thrilled to collaborate with The Nettelhorst School to design the concepts that would ultimately lead to the Outdoor Classroom. The space created allows for imagination and learning beyond the narrow borders of the lot, entices the community to participate, and provides a unique educational opportunity that should be modelled across Chicago Public Schools,”—Katherine Darnstadt, Architecture for Humanity Chicago (Nettelehorst School, n.d.).

Discovery Elementary School

Arlington, Virginia is a growing suburb near Washington, D.C. Discovery Elementary is an example of recent construction in response to population growth. The design of Discovery Elementary is focused on energy costs but considers every aspect of the building and grounds as a tool for learning.

Sustainability initiatives VDMO Architects worked with CMTA Consulting Engineers to create a net zero energy plan for Discovery. The school proudly displays an axonometric graphic of the school design and energy dashboard in the lobby. The siting of the building works with the existing hilly topography facilitating stormwater sequestration on site. Impressively, the roof is covered with 1706 photovoltaic panels and includes a roof top classroom with demonstration panels that illustrate energy production. The interior school design uses nature references, with technology and space exploration themes. The cafeteria includes a vertical garden that grows green leafy vegetables used in the cafeteria and demonstrates seed to plate concepts. Floor to ceiling windows flood the space with natural light and provide views to campus gardens.

The district created a new position to ensure the building functions as designed: Energy and Stormwater Program Manager. Responsibilities of this position encompass all forty facilities of the Arlington Public School district. It is a goal of the district for the rest of the school buildings to move towards greater energy efficiency.

School Community Benefits The biproducts of Discovery Elementary School's focus on energy conservation and sustainability infuses the curriculum. Place-based relationships and evolved human-nature relationships can be identified in and around the school facility. Ecosystem services include all native vegetation, energy provisioning, regulating services, especially water runoff and infiltration, supporting services include indoor and outdoor gardening and cultural services. Alternative commuting options are promoted with expanded bike racks and preferential parking for vehicles using alternative fuel sources (Fig. 4). Biophilic design is referenced in signage, shape, and pattern motifs throughout the building. The interactive dashboard displays energy use in real time and accumulates data that students can use to help make informed choices. The LEED gold (2018) plaque is displayed nearby, and Discovery is one of the largest buildings in the world to receive Zero Energy certification from International Living Futures Institute and New Buildings Institute. Discovery has a MS4 permit (2014), Municipal Separate Storm Sewer System and Minimum Control Measures (MCM) Best Management Practice (BMP) policy in place, all runoff is infiltrated on site through terraced bioretention using native vegetation (Fig. 3). Discovery Elementary School was completed under budget, providing for supplementary community amenities like additional restrooms and enlarged gym space. The solar array alone represents a savings of \$100,000 (USD) per year for the district (United States Department of Energy, 2017).

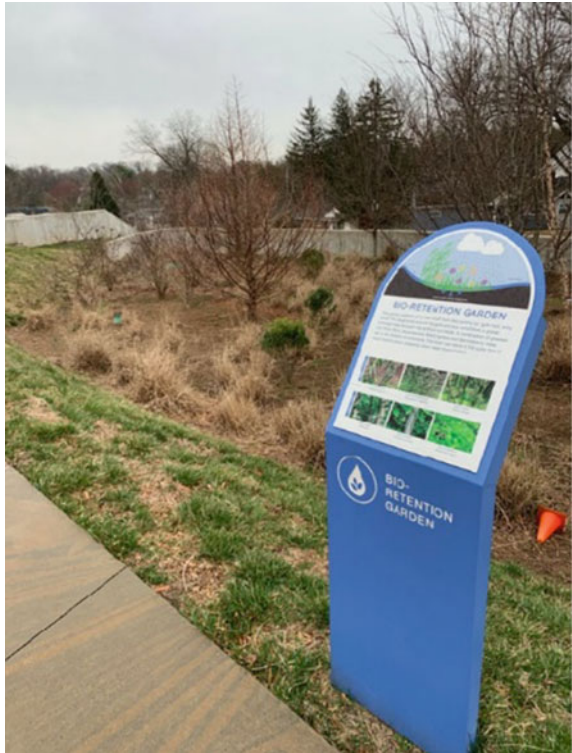
Green School of Baltimore

The Green School of Baltimore is tucked into a neighbourhood setting of row houses, adjacent a public middle school, and a Catholic church. The facilities are modest and homey. The play yard is centred around and shaded by the oldest tree on campus, a Cherry, and bordered by recently planted Dogwoods. To one side of the building is an outdoor gathering area with gardens, picnic tables and terraced seating. Signage on the front gates lets visitors know that this space is a Certified Wildlife Habitat, approved by the National Wildlife Federation.

History The public charter school is in its second home having spent two years as a tenant in the nearby middle school along with another charter school. The Green School currently occupies a three-story brick building, formerly a convent. The repurposed building is surrounded by lush vegetation (Fig. 5). An oversized fig tree prominently at the corner of the building, storied for its Italian origins in the area.

Sustainability Initiatives The nature-based curriculum promotes engagement with the natural world with the goal of lasting environmental stewardship. Green School works with Next Generation Science Standards as a supplement to their environmental programming. Each grade is programmed around age-appropriate environmental concepts, for example: kindergarteners are the *Pollinators*, first grade: *Terrapins* and fifth grade: *Organic Gardeners*. The curriculum works with inquiry

Fig. 3 Discovery
Elementary bioretention area



based, web of life concepts that demonstrate increasingly complex structures as students advance.

Green School partners with community organizations such as Belair-Edison Neighbourhoods Inc., Blue Water Baltimore, Chesapeake Bay Foundation, Maryland Zoo, Baltimore Orchard Project, and Living Classrooms Foundation (Fig. 6). These partners collaborate to provide funding for and support of specific projects and curriculum goals.

School Community Benefits School administrators have collaborated with horticulturalists and neighbours for maintenance of the schoolyard tree inventory and gardens. Key biophilic features of this schoolyard are native and culturally significant plants and trees, natural materials, views, botanical motifs, sensory variability, filtered and diffused light, place-based relationships, and evolved human and nature relationships. Ecosystem services are demonstrated in native vegetation, pollination, cultural services related to physical and mental health. Community connections include encouragement of bike commuting and programmatic liaisons with partners, neighbours, and nearby parks.

Fig. 4 Bike parking

Chester A. Arthur School

Chester Arthur School is in the Graduate Hospital neighbourhood of Philadelphia, a neighbourhood with limited options for outdoor recreation or contact with nature.

History The schoolyard project at Chester Arthur School is the result of collaborative efforts of Friends of Chester Arthur, SALT Design Studio, The College of New Jersey’s Centre for Excellence in Science, Technology, Engineering and Mathematics (STEM) Education, The University of New Hampshire’s Stormwater Centre, The Philadelphia Water Department, Neighbourhood Transformation Initiative, School District of Philadelphia, and financial support from William Penn Foundation.

Friends of Chester Arthur provided seed money to get the Graduate Hospital neighbourhood project going and commissioned SALT Design to do a pre-construction site assessment in 2016. The assessment found the grounds to be 99% impermeable (Fig. 7). SALT Design referred to it as an *ecological desert* and identified that all the stormwater runoffs went into Philadelphia’s combined sewer system.

Sustainability Initiatives Stormwater management components of the project were designed in accordance with the Stormwater Retrofit Guidance Manual, a product of the Philadelphia Water Department to manage 28,000 gallons, or 1 inch of stormwater for a 24-h rainfall event. SALT Design’s concept created a learning

Fig. 5 Green School of Baltimore planting area



lab that divides the site into four sections: *Habitat Lab*, *Systems Lab*, *Motion Lab*, and *Energy Lab*.

School-Community Benefits The new design addresses stormwater management with STEM curriculum to be explored as an outdoor laboratory, green space, and public gathering for the community. A post-construction site assessment completed in 2017 found that Chester Arthur School has become a living hub for the community. The Landscape Performance Series assessment outlines how the new outdoor learning environment is a model for transforming traditional public schoolyards. The findings show that noise levels are reduced from 87 to 81.5 decibels, temperature of the playground is down by 7.2 °F, and site use by all user groups is up.

SALT Design used protocols defined by System for Observing Play and Leisure Activity in Youth (SOPLAY) and System for Observing Play and Recreation in Communities (SOPARC) as part of their post-occupancy research assessment. Observation of children’s play indicates that during school hours site use has increased by 128%, and site use after school hours has increased by 157%. The study classifies type of play by gender, and as sedentary, moderate, and vigorous as defined by SOPLAY and SOPARC. All types of play for boys and girls have increased according to the study (Pevaroff et al., 2017).

Fig. 6 Partnerships



Fig. 7 Chester Arthur Street schoolyard project before (Photograph by SALT Designs)



Pre-construction asphalt coverage of the site was 91.4% and post-construction coverage is 54.3% (LAF, 2017). New plantings have improved overall habitat, affording opportunities for exposure to diverse ecological systems. The Landscape Performance Series reported an addition of 21 deciduous canopy trees, 27 shrubs, and over 3,000 perennials, grasses, and bulbs to expand native habitat resulting in

Fig. 8 After (Photography by Sahar Coston-Hardy)



additional numbers of birds, insects, and mammal sightings by 350%. Philadelphia Water Department maintains the stormwater infrastructure system inclusive of plant and soil health monitoring.

The biproducts of the participatory stakeholder design process resulted in creation of native habitats that produce ecosystem regulating services and place-based design responses that enable ecological and cultural connection to place facilitating biophilic tendencies (Fig. 8). Use by students and adult residents on the weekends has increased, demonstrating desire for green spaces in this high-density urban neighbourhood. Chester Arthur Schoolyard project has encouraged connectivity and neighbourhood liaisons.

Scaling Up Partnerships with Nature

In addition to the above case studies, partnering with nature has been scaled up to address district, city, regional, and even national applications. These examples further exemplify how concerned individuals, educational professionals, school administrators, non-profit organizations, and municipal authorities can catalyse to implement change in their schools.

The Boston Schoolyard Initiative This initiative transformed 88 schoolyards between 1995 and 2013, with sustainable development that promoted experiential learning, environmental stewardship and placed the school at the centre of community life. The initiative reached more than 30,000 students, created 32 outdoor classrooms, planted 200 trees, added 100 garden beds, provided professional development for 850 teachers, reclaimed 130 acres of asphalt, and turned 25 acres of asphalt into green space. School principals reported significant increase in student physical activity, improved behaviour, and greater cohesion with parents and community. The new schoolyards are open for before and after school programs, summer camps, and for community residents (Boston Schoolyard Initiative, 2018). The initiative established the Boston Schoolyards Funders Collaborative and included the Office of the Mayor

of Boston, Boston Public Schools (BPS), the BPS Wellness officer, Boston Department of Neighbourhood Development, Boston Basic City Services, Edwards Ingersoll Browne Fund, Boston Community Centres, and Boston Parks and Recreation Department.

Space to Grow: Greening Chicago Schoolyards This initiative works with underserved neighbourhoods and engages students, families, and residents, to transform underutilized schoolyards into green spaces for students and community. They focus on replacing asphalt with playgrounds and green spaces that attract community to gather while at the same time mitigate urban flooding. Space to Grow is a public–private partnership between Chicago Public Schools, the City of Chicago Department of Water Management, Metropolitan Water Reclamation District of Greater Chicago, Healthy Schools Campaign, and Openlands, together they have completed 34 schoolyards since 2014. The partnership leveraged financial investments from two water agencies charged with designing green infrastructure to absorb storm surge. Government agencies contribute to the cost and have developed an intergovernmental agreement that defines the role of each partner. The partnership is co-managed by Healthy Schools Campaign, whose mission is to make schools healthier places for children, and Openlands, whose focus is to connect people with nearby nature as part of their everyday lives. This partnership extends past implementation of new schoolyards into professional development, community events, workshops, and curriculum development to guide teachers on how to best utilize their new campuses (Bowman et al., 2016; Openlands, 2021; Space to Grow, 2021).

Community Design Collaborative This organization connects communities with volunteer designers to enable residents to express the vision they want to see in their neighbourhoods. Since 2003 Community Design Collaborative has facilitated 18 preliminary schoolyard designs with the School District of Philadelphia and the Philadelphia Water Department. Together they have addressed a state and federal mandate to mitigate flooding and manage stormwater to protect natural waterways. Many schools lots in the City of Philadelphia are asphalt covered and create significant stormwater runoff sending pollutants into waterways. Partnering with the Philadelphia Water Department, the School District has been able to leverage funds to transform schoolyards into permeable spaces through removal of asphalt and introduction of biodiverse vegetation. This work has transformed parking lots and paved spaces into rain gardens, green roofs, living laboratories with porous paving and shade trees helping the Water Department reach its goals towards Green City, Clean Waters Plan while providing access to nature to thousands of students. Moreover, these spaces add to urban open green spaces available to residents after school hours (Community Design Collaborative, 2015; Green City, Clean Waters Plan, 2011; Philadelphia Water Department, 2021). Community Design Collaborative has published guidelines: Transforming Philadelphia’s Schoolyards, with case studies and practical advice for creating green schoolyards.

Green Schoolyards America This initiative is dedicated to the transformation of schoolyards from asphalt covered space into park-like green campuses that enable learning and well-being while supporting ecology and resilience of surrounding

communities. Green Schoolyards America is part of the living school ground movement and has partnered with Oakland Unified School District in California and The Trust for Public Land in a pilot study of five schools. The initiative prioritized schools in low income areas and provided inclusive design engagement activities resulting in asphalt removal, garden additions, outdoor classrooms, and diverse plantings. Schools in the study received professional development through Green Schoolyards America's Principal's Institute. Green Schoolyards America has also taken on a critical role in response to the COVID 19 pandemic. During the summer of 2020, the organization mobilized educators, school administrators, designers, public health experts, garden professionals, and others in weekly meetings to develop a set of guidelines to address the needs of schools to reopen safely and advance outdoor learning spaces as *Plan A* in the return to school. Moreover, guidelines for leveraging partnerships for use of adjacent green space, street spaces, local, regional, and state parks were developed. This series of meetings culminated in the Covid 19 Outdoor Learning Library of downloadable resources, available on their website (Green Schoolyards America, 2021).

Discussion

The above case studies show that the motivations for and the methods used to partner with nature vary for schools depending on their circumstances. Schools whose mission it is to provide greater contact with nature take a pedagogy first approach often incorporating biophilic design holistically. In these instances, school buildings are repurposed by modifying the original design to accommodate garden spaces and nature references inside and out to support curriculum. For example, Louis B. Nettelhorst school has capitalised on its long history, art and architectural presence, and parental determination for neighbourhood revitalization. By working with parents and partnering with neighbours, local, and regional non-profit agencies, they were able to incorporate nature-based curriculum which served to enhance community identity and urban environmental stewardship. Similarly, Green School Baltimore made a commitment to promote nature concepts in their curriculum through modifications to their facilities with modest means. They enabled biophilic tendencies with a holistic model using nearby nature and organizational partnerships. Chester Arthur School leveraged a partnership with Philadelphia Water Department to address STEM education and urban flooding resulting in expanded outdoor learning opportunities and added green space to the urban neighbourhood. Kiowa County Schools rebuilt in response to natural disaster. The choices made by residents of Greensburg, Kansas, highlighted their local ecology through LEED certification process that became the standard for all new buildings in the rural town. Schools that pursue LEED certification motivated by energy savings have good reason to do so, with reports indicating that savings are substantial. Discovery Elementary School working with VDMO Architects, designed Discovery to be a net zero school. Further, schools like Discovery can serve as an example of the numerous benefits of investing in green

infrastructure that go beyond energy efficiency to form a whole school learning environment tied to local ecology. For example, Discovery Elementary made energy use tangible to students with an interactive energy dashboard. Moreover, the district recognized and adapted its maintenance practices in response to the new net zero facility by employing a full-time energy and storm-water manager to the staff, demonstrating an evolving understanding of sustainable maintenance practice.

Conclusion

School communities connecting with their local ecology can experience multiple benefits. Initially, schools may pursue green infrastructure and certification primarily as a way of reducing energy costs. Green infrastructure can produce valuable energy offsets for schools with the resources to invest. The benefits of integrating green infrastructure also include opportunities to incorporate biophilic design and enable ecosystem services that extend beyond the school grounds. For example, schools that incorporate bioretention into their design include native vegetation, siting, and terrain preservation to achieve those goals, which supports regional habitat and pollination. Moreover, the school communities profiled have formed interdisciplinary partnerships with municipal authorities, local and regional parks, conservation organizations, green infrastructure technologists, environmental educators, and community residents to strengthen the connections to their local ecologies which in turn support academic, physical, and mental well-being. Community centred schools partnering with municipal water authorities demonstrate benefits of shared green spaces and environmental stewardship through stormwater sequestration. Likewise, schools incorporating nature through pedagogy have implemented biophilic design by adding gardens and nature references that promote community involvement through stewardship activities that address provisioning, supporting and cultural ecosystem services which further promote social cohesion. The community school movement has demonstrated the importance of new roles like the community facilitator who acts as a liaison between the school and social service agencies. Similarly, partnerships with nature demonstrate the need for new and or evolved staff roles to enhance and strengthen connections between schools, communities, and local ecology. The co-benefits of this pursuit support green infrastructure by making sure schools are operating as designed and by incorporating biophilic design, facilitating ecosystem services, and improving community cohesion through ecological connections. Schools partnering with nature: support web of life concepts, advance understating of ecosystem services, and demonstrate environmental stewardship with benefits for the entire school community and beyond.

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Planning

School and Community Infrastructure Networks: What Might These Look Like?



Natalie Miles , Benjamin Cleveland , and Philippa Chandler 

Abstract This chapter asks, ‘How might school and community infrastructure networks be conceived, and what might they look like?’ Through an exploratory review of the literature, the relationships between school and community infrastructures are investigated and connections and boundaries between different forms of infrastructure for community use are discussed. A network theory approach is adopted to explore emerging insights into how school facilities and other community assets (buildings and landscaped areas) might better support whole-of-community development, education, and wellbeing. Historically, the opposing design objectives of connection and security have challenged the development of schools as locations for community use, often resulting in facilities that are inadequately planned or resolved in their design to meet the needs of multiple user-groups. Might the reappraisal of school planning and design enable new and improved connections with other community infrastructures? Might planning and designing community facilities with school users in mind improve their utility? Drawing together various discourses in the literature, a network model is proposed to represent relationships between school and community infrastructures. This is intended to encourage planning authorities to explore potentially better integrated, more effective, and financially more efficient models of infrastructure provision for community use—especially in fast growing areas on the edges of Australia’s largest cities where demand for community services and infrastructure is high, but resources are stretched.

Keywords School facilities · Community infrastructure · Infrastructure networks · Social networks · Network theory · Urban planning · Urban design

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Introduction

In recent years there has been a push from Australian state governments for schools to act as community hubs (e.g., Audit Office of NSW, 2018; Department of Education and Early Childhood Development, 2008; Department of Education and Training, 2020; Department for Education SA, 2017). This ambition stems from a desire to better integrate, or co-locate, community services and programs on or near school sites to make them more accessible to young people, families, and other community members, in the belief that connecting schools with the broader community will be beneficial (Black et al., 2010; Cleveland, 2016; Glover, 2020; McShane, 2012).

In this context, the language of ‘schools as community hubs’, and synonyms including ‘full-service schools’, ‘extended service schools’ and ‘community schools’, represents a multifaceted and nuanced conception of the school as an important anchor organisation in local neighbourhoods. Black et al. (2010) suggested such language refers to connections between a school and its local community through the provision of shared facilities and/or services, often accessed by both adults and children outside of school hours.

Despite wide acceptance of these ideas by state governments across Australia, little data has been collected to monitor how shared infrastructure, such as sporting and recreation facilities, multipurpose halls, and health service facilities on or near school sites is being used by community members. A better understanding of the use of shared facilities by school and community members is needed to inform the planning and design of shared infrastructure for the delivery of schooling *and* community services and programs.

The literature on schools as community hubs tends to focus on community services being delivered from school sites (e.g., Calfee et al., 1998; Dryfoos, 1994; Dryfoos & Maguire, 2019; McShane et al., 2012). This chapter proposes a shift in focus; from paying attention to what schools can provide to communities, to viewing school campuses as sites within a broader integrated network of community infrastructure. If the relationships between school and community facilities are mutual, what opportunities (and challenges) arise?

Below, the relationships between school and community infrastructures are investigated through an exploratory review of the literature. The focus of the research is largely spatial and facility-based, yet also inherently social. A transdisciplinary approach to reviewing the literature, exploring the connections and boundaries between school and community infrastructures reveals the value of scholarly works from the fields of urban planning, infrastructure policy, human geography, social psychology, architecture, education, and network theory.

The key question being addressed is ‘How might school and community infrastructure networks be conceived, and what might they look like?’ The literature review draws attention to current and historic discourse about; social and community infrastructure; emerging ideas about infrastructure networks; conceptions of community (including the inconclusive meanings of the term); the connections between schools and communities; and studies into child friendly neighbourhoods.

Finally, these threads of inquiry are drawn together to inform a proposed network model. This represents potential relationships between school and community infrastructures and is intended to progress debate about the role of school facilities in supporting broader community outcomes, as well as the role of community facilities in supporting the educational objectives of schools.

Social and Community Infrastructure

Community infrastructure fits within a broader conception of social infrastructure and is largely provided by local government authorities (LGAs) (McShane, 2006; Miles, 2020). Social infrastructure serves sectors such as healthcare, education, recreation, arts, culture, justice, emergency services and social housing and is defined by Infrastructure Australia (2019) as “the facilities, spaces, services, and networks that support the quality of life and wellbeing of our communities” (p. 1). Infrastructure Australia (2019) further identifies social infrastructure assets as “the buildings and spaces that facilitate the delivery of social services by governments and other service providers” (p. 1).

The Victorian Planning Authority (VPA) offers a useful definition of community infrastructure, describing it as “the buildings and spaces that provide services, activities and opportunities” (2021, para. 1), and suggests it can be “provided by government, not-for-profit organisations and the private sector” (ibid.). Similarly, McShane (2006) uses the term ‘community facilities’ to identify “recreational, cultural, educational, health and civic facilities available to the public” (p. 269). Morphet (2016) argues that social and community infrastructure is “essential for the functioning of society, including the economy” (p. 90) and “includes all aspects of caring for individuals and contributing towards community life” (p. 90).

Community facilities in Australia have historically been stand-alone facilities. Many were initiated with community investment—both financial and emotional—and were paid for and built by sporting clubs and local groups (Lewi et al., 2010). Over time, LGAs took over the management of these facilities and shifted the focus from facilities for specific purposes to creating the multi-purpose facilities that are common today (McShane, 2006). However, these multi-purpose facilities largely operate independently from each other, with separate management structures and booking systems, rather than as complementary networked operations.

Infrastructure Australia (2019) included ‘social infrastructure’ in the *Australian Infrastructure Audit* for the first time in 2019, reasoning that its inclusion “responds to the growing recognition of the role effective social infrastructure assets and networks play in supporting our nation’s wellbeing” (p. 388). The audit describes buildings and facilities as ‘assets’ and suggests that “while assets are often considered individually, our social infrastructure networks as a whole play a nationally significant role in supporting Australia’s economy, liveability and sustainability” (p. 388) and affirms that “the network of social infrastructure contributes to social identity, inclusion and cohesion and is used by all Australians” (p. 338).

Throughout the Infrastructure Australia (2019) report ‘social infrastructure networks’ are referred to frequently, yet without specific explanation or definition. While it seems logical to think about social infrastructure as a network, how do these networks occur and how do they function in practice?

Given the range of sectors associated with social infrastructure, some components of these networks may be more clearly identified than others. For example, Infrastructure Australia (2019) suggests that creating a network of green connections, such as high-quality shared cycling and walking paths, may “provide opportunities for a series of individual small projects to deliver a large-scale impact when woven together to form a new landscape across an urban area” (p. 433).

Can this logic of connections and networks also work in the context of smaller community facilities? While smaller facilities are commonly seen in isolation, if they are considered as ‘woven together’, can such projects have a large-scale impact if they are to operate as a network?

A recent report released by the Greater London Authority (2020a) in the United Kingdom (UK) outlines the importance and potential of social infrastructure, specifically in the context of social integration. The report describes social infrastructure as “an ecosystem of local organisations, networks and services, supported by different types of buildings and physical spaces” (p. 15). This ‘ecosystem’ is further defined as “a mix of ‘hard infrastructure’ – buildings and other space – and ‘soft infrastructure’ – the groups, networks, online forums and individuals that bring the physical facilities to life” (p. 87). The report includes a helpful diagram (see Fig. 1) that sets out a continuum of ‘hard’ and ‘soft’ infrastructures, as well as identifying roles across a spectrum of ‘formal’ to ‘informal’.

While this research is largely focussed on the role of hard infrastructure in supporting communities, it is important to recognise the reciprocity of the physical and social components of infrastructural arrangements, as highlighted in the Greater London Authority (2020a) report.

Networks and Infrastructure Networks

As infrastructure networks are ill-defined in the literature, it is important here to firstly define what is meant by a ‘network’ and subsequently to explore what might constitute an ‘infrastructure network’.

Rogers et al. (2013) define a network as “a set of nodes and the paths linking them together” (para. 1). Working in the field of human geography, Mayhew (2015) identifies a network as “a system of interconnecting routes which allows movement from one centre to the others” (para. 1). She suggests that networks are made up of “nodes (*vertices*), which are the junctions and terminals, and links (*edges*), which are the routes or services which connect them” (para. 1).

In his book *Community*, Delanty (2018) defines networks as “heterogeneous sets of relationships between nodes” (p. 90). He outlines that social networks facilitate communication, saying “networks are both based on and make possible conduits

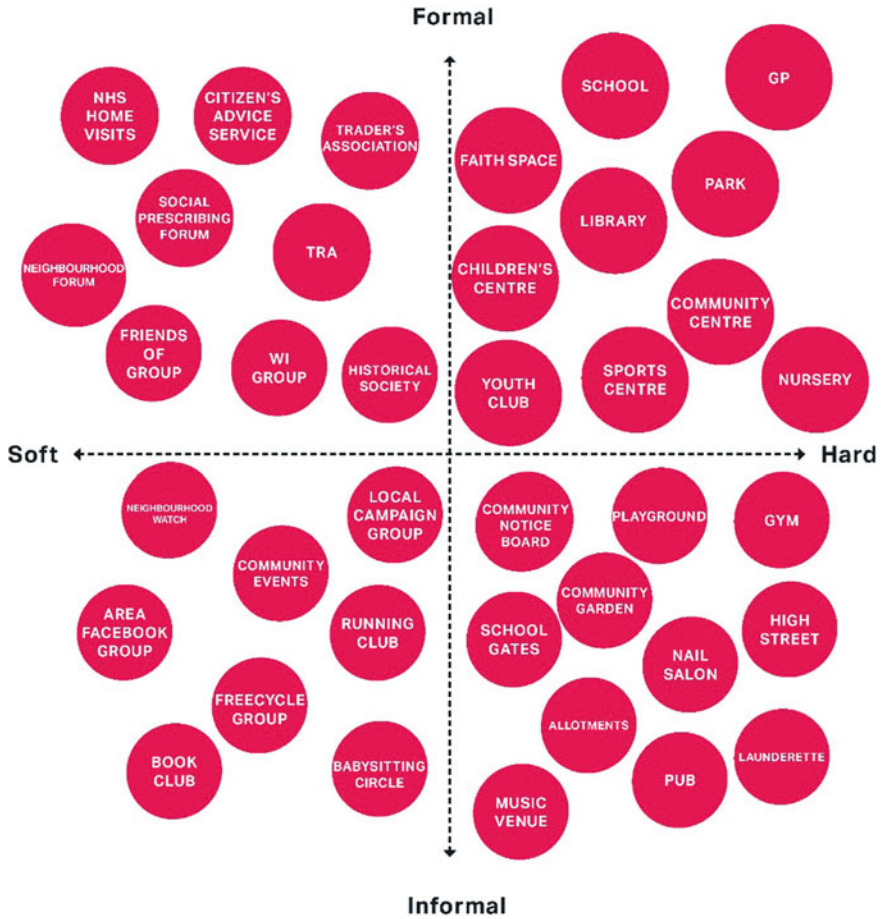


Fig. 1 Understanding different types of social infrastructure (Greater London Authority, 2020a, p. 51)

of communication between otherwise different centres” (p. 91). Further, Delanty (2018) argues that flows of information are “crucial in explaining their capacity to bring about social change” (p. 91).

The network diagrams shown in Fig. 2, adapted from Baran (1962), show different ways networks can operate. These types of representations were developed to explain communication networks but have relevance here in showing how all types of networks can be considered. The first network type, ‘centralised’, includes one central node linking to each end node. Baran explains that this network type is “vulnerable” (p. 3), whereas the ‘distributed’ model is preferable as it allows the network to continue to operate even if one node is not operating. Barabasi (2003) explains how Baran’s proposal of the ‘distributed’ network contributed to the design of the world wide web, offering multiple pathways for information to flow between nodes.

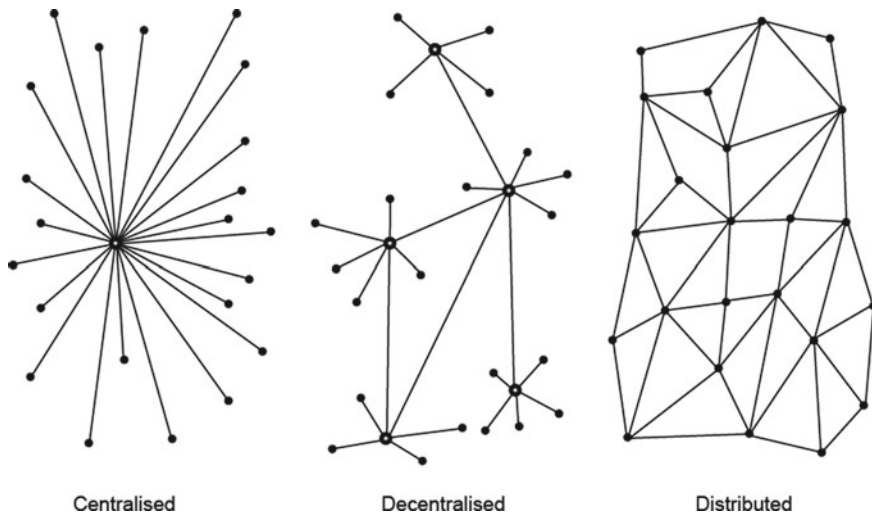


Fig. 2 Network types, adapted from Baran (1962)

In practice, most networks include both centralised (star) and distributed (mesh) elements (Baran, 1962).

Studies of social networks may offer leads into the operation of infrastructure networks, including mapping techniques and ways of understanding links between nodes. For example, network diagrams relating to social networks are often called ‘sociograms’ (see for example Carrington & Scott, 2011; Korom, 2015). These show individuals or organisations as the ‘nodes’ and their relationships as the lines (Carrington & Scott, 2011). In addition, Social Network Analysis (SNA) (see for example Borgatti et al., 2009; Marin & Wellman, 2014; Scott, 1988) offers methods for determining social relationships. Such techniques may be useful in developing insights into the relationships that exist between infrastructure assets, where individual facilities may be identified as ‘nodes’, but what are the ‘links/edges’ in infrastructure networks? Deeper consideration of the ‘links’ in infrastructure networks appears necessary, however, it seems reasonable to believe that links may take multiple forms: the physical flow of people between assets; operational connections; indirect connections via broader social networks; and the sharing of data via digital networks could all be playing a role.

Community

The term ‘community’ is frequently used in government publications about infrastructure, but rarely defined—and as observed by Williams (2002), “unlike all other terms of social organization (state, nation, society, etc.) it seems never to be used unfavourably” (p. 66).

Parker (2006) identifies that “despite years of research and inquiry, definitions of ‘community’ are unstable and fluid” (p. 472). Clay (2007) argues that “the word itself has become almost devoid of precise meaning” (p. 12) and Head (2007) comments that “the term ‘community’ is notoriously vague and value-laden” (p. 441) and overused without interrogation in the political realm to imply harmony and unity. Head (2007) argues further that ‘community’ is often used in a symbolic way, as a ‘spray on solution’, to suggest that all members of an area or group have one voice, or one set of needs, whereas in fact each community is made up of both individuals and smaller communities. Chaskin (2008) offers multiple definitions of community, including “community as a network of relations” (p. 67).

In their book *Community: Building modern Australia*, Lewi and Nichols (2010) agree with such discourse and describe how definitions of community “have been multifarious and elastic” (p. 8). They offer a broad definition, suggesting that community “encompasses a group of people bound together by common threads, including geographical location, ethnicity, socioeconomic status, sexuality, or circumstances” (p. 8).

Working in the field of sociology, Delanty (2018) offers a history of how the word ‘community’ has been used and contested. He argues that although ‘community’ has been—and remains—contested, we “cannot do without” it (p. 3).

As the literature outlined suggests, it is important to be aware of the limits and intended meanings of the term ‘community’, and the biases often associated with its use. For example, it is acknowledged that the concept of a singular ‘school community’ is false, as there are commonly many smaller communities associated with a school. For the purposes of this research exploring connections between the built environment and social networks, ‘community’ has been taken to describe the various populations who share an association with a place or space, and places and spaces are identified as the links that provide the potential for relationships and connections to be made between people, and social networks to be formed.

Connecting Schools and Communities

This chapter proposes a shift in how we view the operation of both school and community facilities. How—and to what extent—are various populations within communities accessing school facilities to support community outcomes? Conversely, how are Australian schools utilising community infrastructure to extend their activities beyond campuses to achieve educational outcomes?

Anecdotal evidence suggests that many schools share facilities with ‘outside groups’ (at least to some extent) and that it is common for schools to use community assets, such as sporting fields, swimming pools and libraries that are managed by local government authorities and other organisations, to enable a range of curricular and extra-curricular programs and activities. However, such phenomena are under researched and little data exists on the extent or value of such sharing arrangements.

Before connecting schools with community infrastructure, it is important to understand why this may be a useful endeavour. Efficiencies in land use, financial investment, and asset utilisation have been identified as benefits of shared infrastructure (VCEC, 2009). A variety of additional stakeholder objectives can also be found, including those of multiple levels of government, educators, and health service providers. As identified in Canada, these include improving the range and quality of support services to students and families; strengthening relationships between school administrations, community partners and the public; providing a platform for improved service delivery to communities; maximising the use of public infrastructure through increased flexibility and utilization; and reducing the costs of operating facilities for schools and government (Pelletier & Corter, 2005).

Connecting schools and communities has also been linked to a range of more complex social benefits, including gains in social capital (Fisher, 1998). While acknowledging that social capital is somewhat difficult to define, Fisher (1998) states that it seems to be “dependent on a number of values—trust, reciprocity, networks and community cooperation” (p. 10). Subsequently, he laments that due to concerns of safety and liability, school designs have continued to remain separated from their surroundings, stating that:

The concern for safety and security in society is seen uppermost in the design and placement of schools—the idea of trust, networks, reciprocity and collaboration is seemingly deliberately designed out. Thus, opportunities for students and staff and parents and the community to ‘learn’ social capital are extremely limited and in fact in many cases almost physically impossible. (Fisher, 1998, p. 11)

These conflicting desires of safety and security, versus openness and connection, remain a challenge more than twenty years later for the development of schools as community hubs—in Australia and many other developed nations, including the UK, Canada and the USA (Chandler & Cleveland, 2020, 2021, 2022; Jahangiri, 2018; Stevenson, 2019).

So, how can both safety and connection be achieved? In her book, *Infrastructure Delivery Planning: An Effective Practice Approach*, Morphet (2016) argues that “planning for school places needs to be part of an integrated process for all infrastructure” (p. 95). She and others (e.g., McShane & Wilson, 2017) have identified that school planning and community infrastructure planning have largely been undertaken in isolation from each other. Few authors discuss interactions between urban planning, school planning, and community infrastructure planning, apart from to comment that productive connections between these processes occur too rarely. For example, McShane and Wilson (2017) discuss the barriers in Victoria to better integrated planning, identifying the responsibilities of different levels of government as a structural impediment, with the State government generally overseeing school provision and development, while local government authorities provide community infrastructure.

A study on facility sharing by the Victorian Competition and Efficiency Commission (VCEC, 2009) stated that “of the 1577 Victorian government schools, as many as two-thirds might share their facilities in some way” (p. XXVIII). The VCEC (2009)

report goes on to suggest that “better connections between what is wanted and what is available is a starting point for improving the benefits of shared facilities” (p. 33). It then goes on to suggest that “information can help identify sharing opportunities of which groups may have been unaware and help bridge the gap between available facilities and user groups looking to access facilities” (p. 33). Such thinking aligns with Fisher’s (1998) who stated that “schools are now seen as not simply buildings but are organisations and networks of relations and communications” (p. 6).

How have such ideas translated into physical, organisational, and operational changes related to how schools connect with their surroundings, and communities connect with schools?

It is clear there are many potential benefits to increasing connections between schools and communities. The literature above shows that the potential is more complex than simply co-locating shared facilities on school sites. As Morphet (2016) discusses, the factor of integration is not addressed adequately in current planning policy (in the UK) but adopting improved integrated planning approaches could drive real change.

Child Friendly Neighbourhoods

Research into child friendly neighbourhoods (Ergler et al., 2017; Gleeson & Sipe, 2006; UNICEF, 2018) has much to offer school and community infrastructure planning and projects, reminding us that communities are comprised of all ages and abilities. Accounts of children’s explorations of urban environments have appeared extensively in Australian and NZ scholarship (e.g., Clement, 2018; Kearns et al., 2003; Malone, 2002), highlighting the importance of activating the connections between schools and community amenities.

Carver et al. (2014) argue that children’s independence should be prioritised in both the design of community facilities and the connections between them. Here, the connections between facilities (i.e., the links in the infrastructure networks) as much as the facilities themselves (i.e., the nodes) are important. According to the Greater London Authority (2020b, p. 23):

It is not enough to just create a lot of activities for children and young people - they must be able to move between these different activities, school and home. Only when children and young people can easily and safely move from place to place, do you have a child friendly environment.

The importance of activating connections between community settings and schools is highlighted (Smith et al., 2021). Freeman (2006) states that without walkable neighbourhoods “children’s lives become a fragmented mosaic of places - school, childcare, club, shops and playground” (p. 86). Just as community infrastructure networks can provide adults with walkable, integrated, accessible facilities, including schools in these networks opens possibilities for children to extend their independence and participation in the life of their neighbourhoods. How do the

boundary conditions of the school and the library, plus the footpaths and crossings between them, effect the social capital and child-friendliness of a neighbourhood?

It is important that children's voices are included in the processes of planning and designing the facilities and landscapes that supposedly cater to their needs (Ferguson, 2021). Children are increasingly acknowledged as having the right to participate in such decisions:

For children and young people, the rights to play, to gather and to participate in decisions that influence them are enshrined in the United Nations' Convention on the Rights of the Child. (Greater London Authority, 2020b, p. 17)

Techniques to consult with children include interviews, focus groups, photo-elicitation and diary-keeping (Barker & Weller, 2003). Another technique to capture children's experiences is community mapping. Ergler and Freeman (2020) discuss children and mapping, stating that "participation often carries the connotation of rights, empowerment, and justice and describes various forms of social engagement" (p. 155). The discourse associated with research into child friendly neighbourhoods makes it clearly apparent that children's perspectives be considered when mapping community infrastructure networks.

Mapping Community Infrastructure Networks (Including Schools)

As noted previously, there is a gap in the literature about school planning in relation to the surrounding urban environment (e.g., McShane & Wilson, 2017; Morphet, 2016), including with respect to schools contributing to and benefiting from local community infrastructure. There is also a need for further research into the operation of social infrastructure networks. The benefits and importance of social infrastructure networks are now acknowledged (Infrastructure Australia, 2019) but more research is needed into how they function and what they look like. The Greater London Authority offer a starting point for mapping connections:

Engagement processes should start with observational research and mapping of both quantitative and qualitative elements of environments, including barriers to independent mobility and wider connectivity and networks. (Greater London Authority, 2020b, p. 58)

Using the network models proposed by Baran (1962) as a starting point (see Fig. 2), we can speculate as to how a community infrastructure network may emerge. Documenting the connections between facility nodes, both existing and potential, builds a picture of how a network model could operate. Figure 3 offers a speculative community infrastructure network map, showing a hybrid of the 'decentralised' and 'distributed' network models offered by Baran (1962). The map imagines a neighbourhood network, connecting schools, sporting facilities, outdoor recreation areas, specialist institutions like music and performing arts centres, local halls, aged care facilities, and public facilities such as libraries and museums. If a school, aged care,

and early learning centre were connected to a performing arts hub, with walkable connections, what benefits could be afforded to local neighbourhood communities?

In considering how the network of community infrastructure could be ‘woven together’ (ibid., p. 433), a new social infrastructure landscape could be uncovered.

Conclusion

Australian schools are under pressure from surging enrolments. Infrastructure Australia (2019, p. 26) notes that “school enrolments are projected to increase by almost half a million students between 2019 and 2027”. In this context, planning schools as part of community infrastructure networks (a sub-set of social infrastructure networks) could offer significant benefits. Conceptualising schools as assets within ‘woven together’ infrastructure networks that include a variety of facilities in geographically related areas may help deliver more fiscally efficient assets that can be shared to deliver more benefits to more people. For example, if a community infrastructure network included a large indoor sporting facility there may be no need to build another. Instead, attention could be paid to the urban connections between assets and the creation of shared facility management systems.

Understanding schools’ existing networks may be a first step towards strengthening such connections and relationships (GLA, 2020b). Mapping the ‘nodes’ and ‘links/edges’ of existing (potentially underutilised) networks could offer valuable insights into the types of relationships that exist and their value to different user groups. Such mapping exercises could, for example, expose opportunities for schools to develop stronger relationships with LGA-run facilities within close geographic proximity, bringing a host of potential benefits to school children, their families, and community users of various facilities and services.

The literature reviewed above also indicated that thinking equally about the ‘links/edges’ as much as the ‘nodes’ is important. Ensuring urban planning and design addresses the safe movement of adults and young people of all abilities between infrastructure assets appears critical to ensuring connections between facilities are effective. For community infrastructure networks to be conceived to include schools, a focus on accessible, walkable connections and integrated operational models is needed. Schools should not be considered in isolation, but as critical community infrastructure, offering more than education facilities to school-aged students. Partnerships and willingness to cooperate between multiple levels of government, and across different government departments, is needed (McShane, 2012) to unlock the potential of schools as connected community assets.

While the arguments put forward above may be viewed as aspirational, the challenges to linking different services across multiple facilities are acknowledged. For example, Cummings et al. (2011) outlined challenges experienced in full-service schools in the UK related to strategy, consultation versus participation, funding and sustainability, accountability, and facility management. Nevertheless, they concluded that while making connections between schools and outside organisations is a

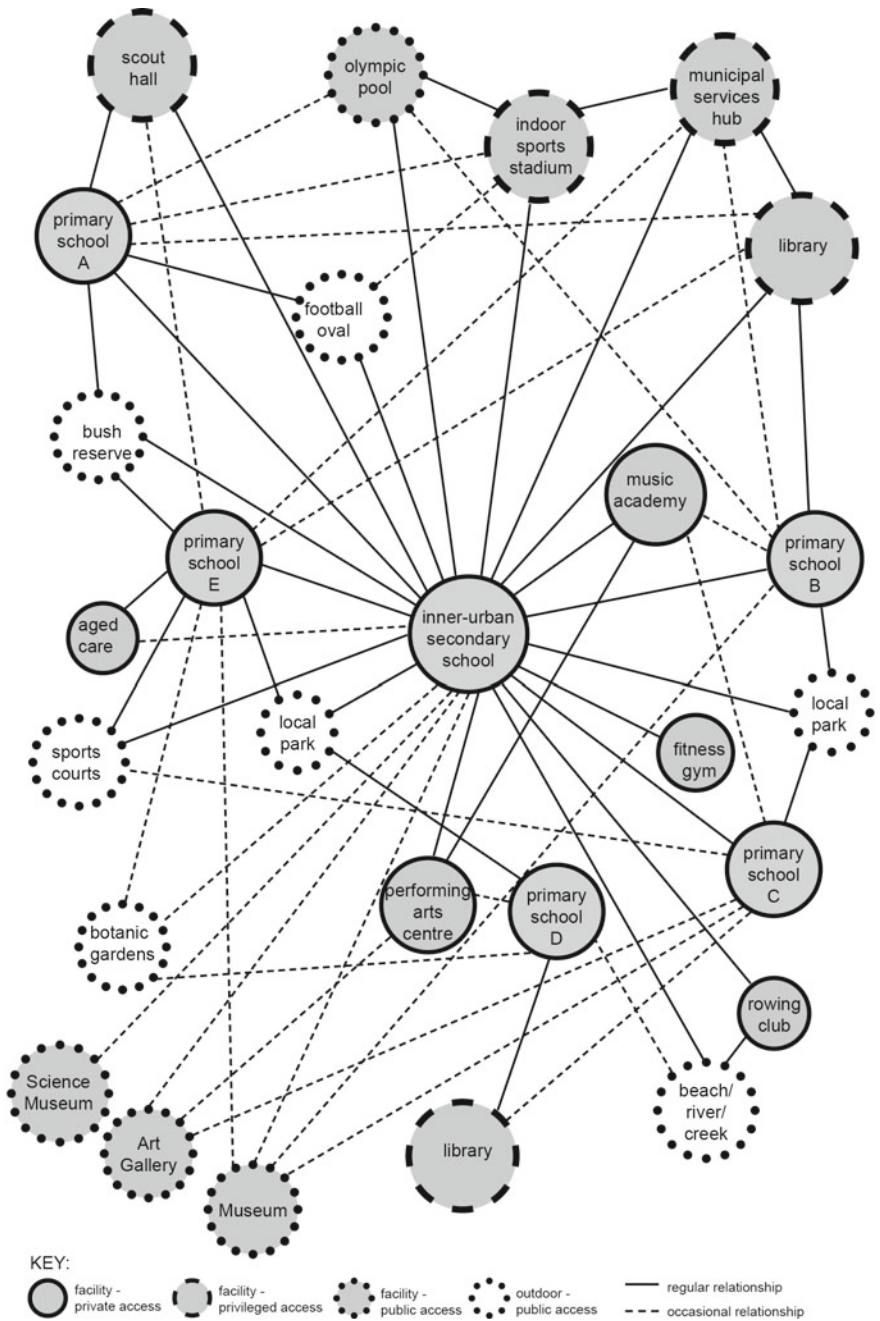


Fig. 3 Community infrastructure network map (Miles (2022) <https://doi.org/10.26188/2011328>)

complex undertaking, the physical, social, and environmental benefits make it worth the effort.

Collecting data and developing deeper insights into the ways community infrastructure networks, including schools, operate, is needed to help inform future infrastructure asset planning, especially where opportunity exists for LGA-led community facility planning and state-led school facility planning to be integrated and considered from a networked perspective.

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Valuing Urban Schools as Social Infrastructure



Jos Boys  and Anna Jeffery

Abstract Re-thinking urban schools as part of an integral network of social infrastructure in cities presents new opportunities for mixed-use educational spaces at the heart of urban development. Yet these opportunities to leverage school assets to better integrate with, and enhance, their localities are often being missed. This chapter explores the value that schools can offer, not just for children, but for wider neighbourhood residents. While understanding that there is no one-size-fits-all approach, we report on a research project to produce a social infrastructure framework which can be included in schools' policy, implementation and evaluation measures. Developed through an engagement process with key stakeholders, and focused on England, we propose principles for enabling schools to provide better local social infrastructure; based on broadening how we value schools; taking a long-term view; using joined-up thinking; enabling schools to deliver community support; and designing in community potential from the start. This chapter discusses the implications of each principle, supported by examples.

Keywords Urban schools · Mixed-use education · Social infrastructure · Community schools · Community facilities · Learning environments

Introduction

While the primary purpose of schools must remain the education of children and young people, limiting the vision of these significant public assets is negating valuable possibilities, particularly within emerging and existing urban centres where social infrastructure is often limited. Many schools in the United Kingdom (UK) are publicly funded, often with significant land and spatial requirements. To ensure that these assets reach their potential and enhance opportunities for local people, it's vital

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that a wider understanding of community value is included in policy, implementation and evaluation measures, and that these community values are key considerations in planning application criteria. This is about what has been called ‘civicness’ or schools as civic places—but also about equality of opportunity and inclusion. Through re-thinking their value to a wider community, schools may become much more than just a building, conceptualised instead as enabling and integrating a set of social interactions and processes (Ralls, 2019).

The opening of school facilities for community use may seem obvious—and there are many schools which do this well—yet, in England, these wider social missions have been progressively limited by an increasing education and estates policy focus on standards, employability and individualised understandings of educational purpose, centred on personal academic achievement. When this is combined with austerity measures that affect not just schools’ budgets, but which have forced the closure of libraries, swimming pools and adult learning centres, the combined effects can be significant. In parallel, current means for commissioning and procuring schools in new developments often results in complex tensions between central government, local authorities and school operators dependent on a range of governance and funding frameworks. This can be a barrier to schools as integrated social infrastructure—and to fresh thinking that goes beyond the basic rental of school facilities for community use.

This chapter focuses on England—educational policies and practices vary across the UK—and is based on research undertaken to scope challenges and opportunities for rethinking the value of schools to their localities in an urban context. This was done through a series of discussion seminars with a range of stakeholders involved in the design, procurement, policy, and operations of schools. Following some shared editing, this led to the production of a discussion paper, *Educating the City: Urban Schools as Social Infrastructure* (Boys & Jeffery, 2020). This examined the problems and possibilities of schools as community assets in the English urban context. Five key values for existing and new schools were discussed to inform educational policy and built estate provision; and are outlined below. We then go on to discuss some of the significant challenges and barriers, and opportunities presented if these barriers can be overcome, towards a collective re-thinking of schools as social infrastructure in cities.

Broadening How We Value Schools

In this section, we outline five main ways in which schools can better provide social infrastructure. This starts from the simple and already common offering of community facilities and services. But it’s also about potentially offering education to learners who are not just the children who attend the school; enabling community involvement in school activities; supporting environmental sustainability; and becoming a catalyst for urban regeneration and socially sustainable mixed development.

Community Facilities and Services

School buildings, their contents and grounds, often represent the largest single asset for their immediate locality—where sports halls, playgrounds, meeting rooms, libraries and classrooms can also offer vital community spaces. In addition, schools can (and often do) offer access to services and equipment, and/or provide hubs (permanent or temporary) for community social care programmes, including parenting support, childcare, breakfast and after-school clubs. Sometimes other facilities are co-located with schools, often requiring little more than space and ease of access. The provision of such spaces can make a significant impact on local communities; both through the availability of these important social services as well as creating a sense of community pride around the school through shared interest and use.

There is good international evidence that using school facilities to provide community-based services can have positive impacts on a range of outcomes for children, families and communities. Bringing services together on a single site can generate a cumulative ‘community school effect’, help address child poverty, and solve some of the challenges posed by declining budgets for community services. (Dyson & Kerr, 2016, p. 2)

In the UK, sadly the utilisation of school buildings can be less than 30% of their useful lives (Wallbridge, in press). This is neither economically, spatially nor environmentally sensible.

Life-Long Learning Opportunities

In 2019, every EU country failed to achieve the 2020 target benchmark of 15% participation in adult education (EACEA, 2021). Across the UK, many adult services are being defunded and it remains to be seen whether further funding will be provided in response to the pandemic. However, Covid-19 has significantly reshaped our communities and in particular employment opportunities for many. School buildings are an obvious place to provide further learning opportunities for adults of all ages. Whether it is knowledge or skills oriented, or new life skills like swimming or fitness, communities should have the opportunity to make the most of these assets. Education policy makers at both national and local levels could and should be leveraging existing facilities and new build projects to better educate the whole population.

School-Community Partnerships

In the 1970s, Roger Hiemstra set out four conditions for the development of successful community-school interactions that go beyond the school providing



Fig. 1 Impington Village School, Cambridgeshire, UK. Image W 2015-04-21, by sps 1955, is licenced under CC by 2.0

community and educational services to their localities, based on his work in North America. These were re-published in the 1990s as follows:

1. Provision of diverse educational services to meet the varied learning needs of community residents of all ages.
2. Development of interagency cooperation and [various] public–private partnerships to reduce duplication of efforts and improve effectiveness in the delivery of human services.
3. Involvement of citizens in participatory problem solving and democratic decision-making.
4. Encouragement of community improvement efforts that make the community more attractive to both current and prospective residents and businesses (Hiemstra, 1997).

In England, the post-war Cambridgeshire Village Colleges¹ and the Hampshire Schools (Fig. 1) programmes, begun in the 1980s² also offer some examples to learn from.

Hiemstra argued that the reorganisation of a conventional school into a community school did not require massive staffing changes. Rather, people would be selected on their commitment to this kind of education. However, he also noted the importance

¹ For more on the Village Colleges see Saint, A. (1997) *Towards a social architecture: The role of school building in post-war England*, Yale University Press.

² Hampshire County Council Architecture (now Hampshire County Architects) is the in-house multi-disciplinary architecture and design department of HCC Property Services, UK. It has a long-term reputation for good school design and is the only sizeable public sector country architecture studio remaining.

of an increased range of paraprofessional and volunteer roles to support community-based requirements and noted that some schools already employed (or provided space for) a community school nurse, librarian, medical specialist, senior citizen centre coordinator, police-school liaison officer, and adult education specialist. In addition, he proposed the critical importance of a community school director, community education coordinator, or community education agent.

To be a community asset, the community must be involved in and engaged with the school management activities; formally and informally. Likewise, school communities (teachers, pupils and parents) must engage in the activities of their local communities. This can extend to involving local groups in school-planning and design processes as well as curriculum-planning and resourcing.

Supporting Environmental Sustainability

Several ongoing research projects in the UK are assessing the importance of the quality of the environment to learning (daylight, air quality, noise pollution, outlook etc.).³ Furthermore, planning policy and guidance is already clear on standards which must be achieved to both provide the best possible learning environments from this perspective (Education and Skills Funding Agency [ESFA], 2018). However, schools also have the capacity to be leaders on sustainability in the built environment. Woolner (2016) has written about “the potential for the school in the city to be part of the solution to environmental, and perhaps social, injustice: efforts rooted in improving the school space begin to create a centre for sustainable living and an environmental resource for the wider community” (p. 49). This can happen through school planning that takes into account environmental costs of energy usage and travel; school buildings that themselves act as models of good practice, such as including a green ‘living’ roof, creating growing spaces and nature reserves on site; by embedding education for sustainable development (ESD) into children and adult learning; and by initiating and/or supporting community initiatives, such as providing space for local farmers’ markets and for shared community meal preparation and eating (Fig. 2).

A Catalyst for Urban Regeneration

Schools are an essential part of any new community—including inner urban high-density developments. Educational facilities in our urban communities present opportunities to make the public realm more attractive and welcoming. In some cases,

³ See, for example, the UCL research project Advancing School Performance: Indoor environmental quality, Resilience & Educational outcomes (ASPIRE). <https://www.ucl.ac.uk/bartlett/environmental-design/research-projects/2021/jul/aspire>.



Fig. 2 Hackney School of Food, London, UK (Note The Hackney School of Food is located at Mandeville Primary School in Clapton, London. The project is a new initiative to teach children and adults from across London how to grow, prepare and cook delicious, nutritious food, while also providing an inspiring community space and productive gardens for local residents to enjoy. The school is a joint venture between the Learning, Education, Arts and Partnership [LEAP] Federation—a network of three Hackney primary schools—and Chefs in Schools, a charity dedicated to transforming food, food culture and food education in schools through training, guidance and support. Designed by Surman Weston Architects. Photo credit Jim Stephenson)

schools can be accommodated in repurposed buildings, bringing historic and redundant buildings back to life. During one of the seminars held for *Educating the City*, Richard Coppell (Development Director, Urban and Civic) noted that:

Good development is all about the early delivery of infrastructure – that’s the standard things like roads, trees and drawings, the very basic things: but also, importantly, the social fabric as well, so schools go in usually before any residents arrive.

Schools and other learning facilities are central to the quality of life in a locality and therefore are key components of local planning and development activities. In parts of the UK, as elsewhere, there are also an increasing number of schools integrated with the local job market across public and private sectors, which provide opportunities for partnerships that can support vocational study and enhance the range of local commercial and social activities.

Of course, processes of urban regeneration tend to create complex shifts in patterns of inequality, as land and house prices rise, and can ‘price’ poorer people out of an area. Since poverty is associated with both material (financial) and non-material (lived experience) outcomes, addressing it through place-based initiatives—including new school building and improvement—is most likely to benefit poorer households when part of an explicit neighbourhood renewal policy, rather than being entirely reliant on the market.

Mixed-use developments are thus a crucial part of the strategy towards achieving more socially sustainable urban neighbourhoods. Mixed-use communities, which may integrate combinations of residential, education, retail, office and other uses, offer several advantages such as reducing car dependence, combating sprawl, and fragmentation of urban areas, promoting economic development and integration of complementary functions. In post-pandemic times, these self-sufficient pocket cities are likely to have even greater appeal; limiting the need to travel as often and developing a greater sense of community among occupants through repeated and sustained interactions.

Further environmental economies can be made possible for such developments through more holistic approaches to provision of energy, where schools can have a valuable role. In June 2019, the UK Government legislated a net-zero target for carbon emissions by 2050. Towards this end, mixed-use developments have several advantages through creating site-wide energy centres which operate more efficiently and through co-locating building types and user types with complementary needs (e.g., residential energy use typically peaks in the evening, while school energy use is typically at its highest throughout the day). Where shared energy centres are used, utilising renewable energy sources as well as technologies such as heat pumps (air/ground/water), can enable the energy centre to operate at its optimum efficiency. This can save on both capital expenditure as well as space.

A Framework for Change: Enabling Schools as Local Social Infrastructure

Unfortunately, our research showed that multiple barriers exist in the UK that are preventing schools easily operating as social infrastructure in the ways outlined above. By working with experts across the field we identified the primary challenges are in this context, and what changes are needed to enable schools to better integrate with their wider communities. These findings are divided into five key points, each framed by their underlying problem, and then by some possibilities for change and improvement: needing to take a long-term view; joining up the thinking; enabling schools to deliver community support; designing in community potential from the beginning; and changing the standards towards ‘Long Life, Loose Fit’ approaches. Each of these are elaborated, in turn, below.

Educational Assets and Facilities Are for the Long Term

The Problem: A Lack of Visioning for the Future

Schools in England are tied to central government policy and financing agendas, resulting in short-term thinking and ‘quick win’ eye-catching policies, like Building Schools for the Future (BSF) and the Private Finance Initiative (PFI). Whilst many innovative schools have been created and a variety of future scenarios predicted, there has been little to see of evidence-based long-term schools planning. Furthermore, schools in the UK are delivered through fragmented processes whereby the different actors don’t have the time, resources or motivation to build deeper relationships and perspectives, or to formulate educational and investment objectives based on the value that can be created with longer timescales. This short-termism results in an inability to consider broader issues for schools in their communities or to consider connecting other sites for social infrastructure together.

To overcome this and ensure that educational spaces are seen as part of the bigger picture, aimed not just at an immediate cohort of children but at all ages in a locality, and for future generations, we need to re-think how educational provision is funded, procured, designed and managed in ways that more effectively bridge gaps between culture and political powers. Below are four strategies for doing this.

Opportunity 1: Develop Evidence-Based Long-Term Priorities

Current policies and guidance are not reflective of broader social change: for example, consideration for school assets when there is fluctuating demand for school places and/or demographic change. In England demand for primary schools is beginning to decrease, while the secondary level population is rising (with of course, local differences in how this overall pattern is being played out). The Covid-19 pandemic may also have an impact on urban demographics as households who can, may have moved out of cities and towns.

Opportunity 2: Create Community Development Strategies for Education Assets and Programmes

Increasing opportunities for community owned/managed schools is another way in which infrastructure assets can be developed to better reflect the needs of locals and have lasting connections with their communities that can accommodate changing needs over time. Examples of this in the UK are few and far between, however Scotland opened its first community school in 2019—Strontian Primary School (Fig. 3) (Seith, 2019).



Fig. 3 Strontian Primary School, Strontian, Scotland. Designed by KD-Partnership Architects. Image by James Anderson, Northcolour Ltd. (*Note* The small Highland community decided to build its own school after parents rejected the local council's solution to sorting out their ageing primary school. The idea for a community-built school emerged from local people's work with the Highland Small Communities Housing Trust, which had some land available. The development is designed to be easily converted to residential housing in years to come when space in the adjacent secondary school becomes available for primary school use)

Opportunity 3: Adopt a Long Life and Adaptable Approach to Legacy and Condition of New and Existing Schools

As a result of short-term thinking and financing, schools are often unable to forward plan towards using their assets effectively, let alone procure and manage more flexible educational estates that can adapt responsively to changing requirements. In the UK, the School Resource Management Adviser (SRMA) programme was recently piloted and evaluated by the Education and Skills Funding Agency (ESFA). The evaluation focused on identifying opportunities where trusts could improve efficiency/increase their revenue generation, through managing staffing deployment and associated curriculum matters (Education and Skills Funding Agency [ESFA], 2020). It is unclear from the reporting to date how income generation from community engagement was costed and where and how savings were made. Placing all responsibility on schools to streamline their estates is unlikely to lead to better community use, and greater support is required from local and central government towards achieving these objectives.

Opportunity 4: Promote the Value of Long-Term Investment in Education

We need to re-think the value of schools' life-cycle costs and support the ability for them to adapt over time with their communities—rather than just respond to the immediate, often fluctuating demands, for pupil places, which inevitably drives short term quality motives. In a school market where parents can exercise choice and funding follows pupils (as in England), schools must provide the 'quality' as quickly as possible that parents demand or face falling enrolment, loss of money and closure (Gibbons & Silva, 2008). We also need to create tools and processes that can better measure the long-term value equation of schools for developers, in relation to the overall investment made in the area, not just going for immediate 'quick wins' over price and profit but allowing and encouraging re-investment is sustainable and socially responsible development. Only by partnering and collaborating with government, local authority, developers, designers, communities and schools, can we provide a more mature response to the integration of schools in urban centres that balances the social infrastructure needs of a community alongside the practicalities of spatial and density constraints.

Join Up the Thinking

The Problem: Disconnected Procurement Policies and Practices

There are multiple levels of disconnect in England when it comes to thinking about educational estates. There is considerable imbalance between different government departments in their various policies and practices around procurement, design quality, standards and requirements. Educational guidelines at national and local levels are also fragmented and inconsistent. This results in a lack of innovation or flexibility. Education is framed as an operational and technical problem, which prevents deeper stakeholder or public debate around the quality of school buildings, its multiple functions, and the need for urban and local integration. While these deeper policy questions and the case for design quality are being asked for example through the Building Better, Building Beautiful Commission for Housing (2020), they are noticeably absent from the education sector.

Opportunity 1: Work Towards Holistic Approaches

While there are positive examples of more integrated and innovative approaches such as The London Plan Social Infrastructure SPG Policy 3.18 (The Mayor of London, 2016) in practice, the implementation of these policies is frequently hampered by a lack of operational sophistication or community involvement. Short term financial



Fig. 4 Bertha Park High School. Image courtesy of Perth & Kinross Council (*Note* Bertha Park High School was designed for Perth + Kinross Council, and delivered through Hub East Central Scotland, based on a radical design vision to give equality of the user and learning experience to all its occupants in an entirely seamless way. The school had to provide both a stimulating place to learn and a facility that could be used by the growing community of Bertha Park, an expanding residential suburb of Perth in central Scotland. The ground up building was the first new school in Scotland in 25 years)

gain often drives the development of non-school uses which can mean that complementary facilities are less commercially viable. The Scottish Futures Trust, on behalf of the Scottish Government, is another initiative towards long-term arrangements for community and social infrastructure. This initiative brings together the public sector with Hubco, a public/private joint venture, to deliver new facilities (Amber Infrastructure, 2017) (Fig. 4). Managing the school estate thus becomes part of wider local government asset management planning. This may also mean working with others to identify the longer-term role of schools and their relationship to other local facilities, such as libraries, leisure, health and childcare.

Opportunity 2: Leverage Value Through Integrated Metrics

Current cost metrics in English schools' programmes hamper creative thinking. This is not about 'unnecessary extravagance' but towards enhancing the usability and flexibility of the school stock over time. Simultaneously, bureaucracy and lack of accountability between and across departments prevents debate about new types of cost-effective innovation that can make commercial sense out of leveraging mixed use; and/or community-centred schools that can act as lead assets on larger developments.

Opportunity 3: Create Spaces for Sharing Debate, Research and Development

Stakeholders from across the sector would benefit from opportunities to share expertise and experiences, underpinned by funded support for relevant research and development. Without a framework for producing, disseminating and discussing opportunities and challenges of current developments in education, schools remain ‘stuck’ in existing patterns, or only change based on individual or organisational commitment and effort.

Enable Schools to Deliver Community Support

The Problem: Overcoming Operational Constraints

Many schools already aim to work with their diverse communities but struggle with the multiple managerial, operational and regulatory constraints that hinder the easy management or use of school facilities for communities, or the expansion of connections with local neighbourhoods beyond pupil cohorts and their parents or carers. Without a commitment from national government or local authorities, along with appropriate funding, school principals, teachers and governing boards find themselves sorting out ways to enhance community provision on an individual case-by-case basis, with little support guidance or building up of re-usable knowledge. This is both time consuming and exhausting. In addition, long term procedures need to be in place to create sustainable integration, because connecting financing, governance and operations are critical to successful inclusion/integration of community infrastructure to schools.

Opportunity 1: Enable Schools to Support ‘Levelling Up’

For schools in areas that already have good local facilities, and where many parents and carers already have individual financial and social resources to support their children, the vital requirement of education as a public good is less significant. But in low-income and under-resourced catchment areas, schools are central to enabling equality of opportunity for the next generational of learners and their families. Failure to support schools and their wider communities can become a serious problem and so sustained efforts to ‘level up’ are needed (Tomaney & Pike, 2021). This means making it operationally and financially possible—and even beneficial—for schools to act as a centre of public good in their neighbourhoods. This needs to be the norm, and the expectation of our schools.

Opportunity 2: Provide Guidance for Community Management and Operations

Both the Department of Education Northern Ireland (DENI 2014) and the Public Policy Unit for Wales (Dyson & Kerr, 2016) has produced guides to increasing the community use of school facilities. There are also examples of good practice internationally (Government of South Australia, Department for Education and Child Development, 2017). This is essential to create general standards for the use by all schools, rather than relying on individual skills or assuming pre-existing knowledge within organisations.

Designing in Community Potential from the Beginning

The Problem: Schools Seen as Standalone Institutions

We argue that the importance of the design of schools in facilitating a wide range of uses and users is often underestimated or forgotten, amidst increasingly constrained budgets and baseline school designs. Yet, changes in everything from to curricula to community engagement have spatial and design implications. When schools are not considered as embedded in neighbourhoods, then many design possibilities are ignored or marginalized.

Opportunity 1: Integrate Social Infrastructural Issues into Design Briefing

If schools are also ‘community hubs’ (The Scottish Government, 2009), then not only policy agendas but also briefing processes need to incorporate provision for a range of community services and activities. Design needs to be able to explicitly enable community use of both indoor and outdoor facilities within the school estate by making schools more open, accessible and welcoming at all times. The layout needs to orchestrate public and private zones and enable opening of different sections of the school at different times of the day/week/year; and to support the school in managing security, cleaning, and maintenance.

Consideration should also be given to how the school facilities fit into the wider social infrastructure in the area. For example, in the UK new school sports halls are being built next door or near existing community sports facilities, often at great expense in the form of basement or roof top spaces due to tight site constraints. Consideration could be given at the briefing stage to the jointly funded shared-use facilities, releasing cost and space and enhancing the provision for both school and community. This is not limited to sports halls and could include theatres, libraries, and general outdoor recreation.

Opportunity 2: Develop Flexible Space Management Systems

As well as ‘designing in’ more integrated use of spaces (from a school to its communities and from existing local provision to a school), there is increasing potential for more flexible and integrated forms of space management, that can enable increased sharing and effective usage such as through flexible online booking systems. For example, in the UK Kajima is a property developer that also builds and runs schools through its Kajima Partnerships arm. In addition, it has a business called Kajima Community which promotes and manages the community use of schools and other public facilities. This has included developing a digital platform for coordinating community space hire across a range of sectors, including education. By either providing lettings software that enables schools to manage their own space hire—thus optimising the use of their facilities and generating additional revenue—or by providing lettings services to schools, such a system effectively enables space sharing.

It also helps to manage changing space needs through time, as activities change, grow or contract. This can reduce management costs and simplify legalities around shared use. With such flexibility, opportunities for further revenue streams and co-location of complementary uses grows. For example, schools that are contracting due to falling school rolls could rent out space for start-up units or other appropriate commercial uses, both to raise income and to adapt to fluctuating student numbers. As Matthew Goodwin (Managing Director Architecture Initiative) said at one of our UCL Educating the City seminars (March 2020):

School/community buildings should be designed to be flexible enough to provide opportunities for retail/commercial lettings, and for example through a shell and core⁴ style building arrangement that allows for flexibility when needed. This is particularly pertinent in the current pandemic as we all change our patterns of working, learning, and leisure. There is an opportunity for local business hubs to be established which would enhance integration, fulfil a local need and generate a revenue stream for the school.

Opportunity 3: Building ‘Bridges’ Not Fences

Building fences around schools to lock kids in and keep the community out is not a positive position, either visually or physically. Furthermore, 39% of sports facilities in England are trapped behind these school gates (Greater Sport, 2020). Yet, such barriers between the spaces for children’s education and the spaces of the city are rarely challenged. The position persists in England that schools must be gated environments that physically prohibit access to maintain a safe environment. These spaces are often further guarded by biometric/card readers; reinforcing an insider–outsider relationship that signals who is welcome/expected and who is not. This prohibits anyone approaching the school who is neither parent, pupil or staff—which in many

⁴ ‘Shell and core’ refer to the first stage of a building’s fabric and include those elements of construction that are difficult or expensive to change.

cases is the point—but consequently changes the perception of schools to one of a controlled and inward-looking environment.

While issues of security are not to be downplayed, a shift in policy is needed to end this entrenched view that fences are inevitable. There are many examples of ‘hard’ and ‘soft’ solutions to this problem. For example, the school building itself can provide a secure line and in doing so give the school a more civic presence within an urban streetscape. Hard systems, such as CCTV can be used to support these passive approaches. As discussed by Julia Atkins in a webinar hosted by Hayball Architects⁵; by making sure end users and the community are involved in working out the security requirements, and design for positive rather than negative behaviour, the assumed need for separation as the only form of protection can be challenged.

Opportunity 4: Urban Schools Providing Public Open Space

It’s possible that in certain contexts, a school building and site may be able to provide new and diverse types of urban spaces. When we build schools in dense urban areas, is this not an opportunity to consider ways of creating more spaces for the public as well? By pooling financial resources from a variety of social infrastructure pots, this surely could represent value for money for the community. The need for local urban public spaces has become particularly evident throughout the pandemic, when parks and other open spaces in local communities are at capacity, and yet large school playgrounds have remained gated an inaccessible.

Opportunity 5: Change the Standards—Towards Long Life, Loose Fit

Alex Gordon, in his role as President of the Royal Institute of British Architects, defined ‘good architecture’ in 1972 as buildings that exhibit ‘long life, loose fit and low energy’.

Many suggest that the underlying financial model for much building development and construction is too focused on short-term profit, resulting in buildings built in the ‘cheapest dumbest way possible’.⁶ In contrast, schools should be guided by socially accountable policies that re-think value. This means adopting a more flexible approach to the rules governing the size and design of new schools, to allow for the best possible use of resources, not just by adding more space, but designing spaces more effectively to maximise opportunities for multiple uses, to support social infrastructure sharing and to future-proof against unexpected change.

⁵ Hayball GLEAM Webinar (2020). Sharing is caring: Towards joint use developments, <https://youtu.be/CXzSBQUE1rY>.

⁶ Allford, S. (2017). NLA Talk, <https://vimeo.com/239965941>.

Next Steps

This chapter has reported on a scoping study undertaken in the UK, offering an overview of the challenges and opportunities linked to developing schools as social infrastructure within the context of local current policies and practices.

Through discussion with global colleagues, and the study of international examples, we know that many of the opportunities and challenges raised in our research paper are not unique to England, or the UK, nor are many of the ideas for change presented new. We are also aware that in such a short piece of research, with a small group of stakeholders from across education in the UK and beyond, we are only ‘scratching the surface’ in terms of contexts, data and examples. Our study is therefore aimed at illuminating future decision-making in England, and at opening questions for future research (both nationally and internationally) rather than proposing solutions. What was interesting was a shared consensus across the private and public providers and educators we worked with, that current educational policy was adversely holding back the potential of schools to act as social infrastructure. It was also agreed that education policies in England were at a ‘low’ in terms of standards and cost controls over school procurement, standards, and design. Whilst there are many examples of individual schools built as high-quality social infrastructure and of individuals and groups committed to education integrated with its locality, there is much less evidence of joined up policy or sector-level initiatives.

One of the important lessons for us about in this study was how equality and inclusion, and environmental/social sustainability, are both essential and inevitably intertwined in the improvement of schools and need to be treated simultaneously rather than separately. Taking this path may have more impact on educational policy in England, as sustainability is currently more politically acceptable than socially inspired improvements. However, the pandemic has presented a critical opportunity to think beyond academic attainment to the social and pastoral responsibility of schools in our communities. In the UK, The Big Answer⁷ (The Children’s Commissioner, 2021) has highlighted the urgent need to place mental health and wellbeing at the centre of schools. A small follow-on research project by the Learning Environments Equality Diversity and Inclusion Centre (LEEDIC) at The Bartlett UCL⁸ called *Adapting school designs for health and wellbeing* during and post pandemic will develop this, by bringing together researchers, professionals, educators and other experts from across environmental and social sciences to co-explore current concerns with children’s learning, health and wellbeing through the lens of school design. Here, we want to develop the themes emerging from Educating the City (together with a parallel project from The Bartlett Institute for Environmental Design and Engineering (IEDE) called *Advancing School Performance: Indoor environmental quality, Resilience and Educational outcomes*, or ASPIRE for short. This new project aims to scope the range and type of design interventions that schools can apply to

⁷ The Big Answer report shares the responses and views of over half a million children in England through the Big Ask survey which took place over six weeks in 2021.

⁸ Funded by UCL Public Policy: Rapid Response Policy Advisory Scheme.

better support pupils and staff both during and post-pandemic, as well as enable longer term building stock and educational support resilience. This includes issues around environmental improvements for ventilation, hygiene, spacing, ‘pinch-points’ and entry/egress, as well as wider issues of social infrastructure and community support such as safety, belonging and mental health support. As with *Educating the City*, the overall aim is to create a series of knowledge exchange activities to enable debate and inform policy through the creation of a discussion paper. Perhaps through applied research and scoping such as this, national and local governments can be persuaded to take up opportunities which enable the leveraging of school assets to better integrate with, and enhance, their localities through environmental and socially sustainable approaches.

Acknowledgements This chapter outlines findings from research into schools as social infrastructure, funded through a UCL Innovation and Enterprise Knowledge Exchange grant, and bringing together researchers from The Bartlett Faculty of the Built Environment and Institute of Education (IOE) with design practitioners from Architecture Initiative (AI). A discussion paper was produced, based on consulting with a wide range of professionals across the field of school building research, policy, procurement, design and delivery.

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Connecting Schools with Local Communities Through Walkable Urban Design



Christina Ergler and Melody Smith

Abstract Educational facilities generate traffic to and from school by car, on foot and on wheels. Which mode of travel dominates in a school community depends on several different factors including but not limited to the neighbourhood design, traffic safety, employment structures, community norms, and school policies. This chapter traces the socio-technical entanglements of traveling to school. We focus on the barriers to, and benefits of, active travel (i.e., walking or wheeling for transport) and showcase what children value on their route to school. Additionally, we highlight how built environments and social practices need to be transformed for creating sustainable, healthy and inclusive urban environments. We argue that to foster inclusive communities and to create a sense of belonging outside the school gates, a multi sector approach is needed to challenge and transform current travel norms and practices together with the physical environment of neighbourhood travel.

Keywords School community · Neighbourhood · Independent mobility · Built environment · Traffic safety · Environmental literacy

Introduction

Walking and wheeling locally is good for children's social, physical and mental wellbeing. Being out and about locally on a regular basis can bring communities closer together and has also positive effects on the environment as air pollution and CO² emissions are reduced. To ensure these benefits are available in cities, urban designers, transport engineers, and public health experts alike are placing increasing focus on urban design concepts such as walkability and 15-min neighbourhoods. In these concepts, destinations of importance (e.g., education, health, shopping, work,

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leisure spaces) are readily accessed within a short walkable or wheelable distance alongside infrastructure that supports walking and wheeling (e.g., bike lanes, pedestrian crossings) (Freeman & Cook, 2019). Schools are an integral component of such neighbourhoods—providing places for education, work, and in some instances for play and community activities outside school hours. How children get to and from school has a significant impact on community and environmental wellbeing—at one end of the scale, high levels of car use degrade social cohesion, increase emissions and congestion, and decrease road safety for those who are getting to school actively (Freeman & Tranter, 2011). Conversely, in schools with high levels of active school travel,¹ children can accumulate health-promoting levels of physical activity,² social connections are grown, car use is reduced, and children come to school healthier and more ready to learn (Neuwelt, 2006). Consequently, researchers, advocates and school travel planners began to campaign for a revival of walking, wheeling and busing to school as a response to declining activity levels in children and a reduction of their environmental awareness (Gleeson & Sipe, 2006; Kearns et al., 2003; Neuwelt, 2006) and then more firmly as part of the sustainability debates and the climate crisis (Freeman & Cook, 2019; Gill, 2021).

Although schools are part of the solution for moving towards sustainable, healthy and inclusive urban environments (Ergler et al., 2017b), they—as we argue in this chapter—are unable to carry the burden of being the sole role model, advocate and change leader for creating an engaging and safe school travel environment that encourages and normalises active travel modes. Rather a concerted effort is needed for creating such a sustainable and healthy travel environment that can facilitate inclusive communities³ and foster a sense of belonging outside the school gates. Such an effort combines, in our eyes, a multi sector approach for challenging and transforming the current travel norms and practices alongside the physical environmental features that enable or constrain active travel modes.

In this chapter we will first outline the socio-technical entanglements⁴ of travel environments and then discuss the need for a cooperative, collective approach

¹ Active travel is defined as any form of mobility that has an active component e.g., walking, biking, scootering, and skateboarding.

² Ideally, 6–8-year-olds are engaged in activities of moderate-to-vigorous intensity—activities that make children ‘huff and puff’—for at least an hour a day.

³ By inclusive community we envision a neighbourhood in which children of all ages and abilities can walk or wheel to school, run errands, play safely not only on playgrounds or in their homes and socialise with friends and community members of all walks of life (see also Bartlett 1999, Freeman and Tranter, 2011).

⁴ By socio-technological entanglements, we mean the interconnection between the social (e.g., norms; practices; politics etc.) and the technical (e.g., institutional structures, systems and policies) physical fabrics of transport (e.g., devices, transport infrastructure) (see Opit & Witten, 2018). This means that the everyday lived realities and practices and the macro-level transport environment in the widest sense (policies, legal and physical infrastructures etc.) are one co-constituted entity that creates, sustains, but is also able to disrupt these systems of practice across scales (e.g., everyday socio-technical relationships can translate and activate policies developed at the macro-level and vice versa). In other words, “the sociotechnical perspective highlights the tension between the potential fluidity of existing relationships and their equally apparent durability [... and thus it is]

between school communities, neighbourhood communities, and local and central governments along with a broader societal shift to create more inclusive, healthier, and sustainable travel environments that contribute to thriving neighbourhood communities.

Getting to and from School and Around the City: A Complex Socio-Technical System

The role social, political and environmental factors play for children's journeys to school and for promoting active travel gained new momentum through the obesity epidemic in the early 2000s. To create healthy environments and tackle so called obesogenic environments, research began more broadly to focus on how the design of cities, political support and policies, social norms and values shape sedentary or more active lifestyles at the micro and macro level (Pearce & Witten, 2010; Public Health Advisory Committee, 2008). Concurrently, increasing research interest in understanding the changing nature of children's mobilities, particularly reductions in school travel mode and independent mobility (e.g., children getting around without supervision⁵) in many western countries were taking place (Badland et al., 2016; Brown et al., 2008; Hillman and Policy Studies Institute (Great Britain), 1993; Rothman et al., 2018). In other words, the focus shifted beyond the binary thinking of society (practices, norms, values) and technology (including but not limited to policies, infrastructure, political systems) towards understanding how the socio-technical entanglements create certain travel practices, logics and processes (Opit & Witten, 2018).

Reasons for the decline in children's mobilities and the generation of 'backseat' cohorts (i.e., children spending their lives being chauffeured between destinations) (Mitchell et al., 2007) began to be seen in light of an urban lifestyle that has (generally) changed to become more car oriented and spatially fragmented (e.g., home, education, work, leisure are spread across the city and accessed by car) (Urry, 2004). Growing time pressure for parents and their children, shifting employment patterns, and changing parenting expectations have contributed to this phenomenon (Banwell et al., 2007; Barker, 2011; Dowling, 2000; Karsten, 1998). Trip-chaining practices accommodate already busy lifestyles of families, and an increasing number of parents drive their children to destinations such as schools, after-school-care and leisure facilities (Buliung et al., 2017; Depeau et al., 2017; Panter et al., 2010; Zeiher, 2003). In other words, increasingly car-centric urban forms along with changing social norms contributes to the hegemony of motorised transport.

necessary to consider the decision-making logics, processes and practices that enable particular sociotechnical relationships to be held stable." (Opit & Witten 2018, p. 7).

⁵ Independent mobility is defined as mobility that is undertaken by a child without adult supervision (Badland et al. 2016). Children can be mobile alone and in groups with younger and older peers.

In Aotearoa New Zealand, for example, the disbandment of school zones exacerbated a growing reliance on car travel. School zones were later reintroduced and complemented with a ballot system, so that children are now often driven to what is considered the ‘best’ school, often outside their own neighbourhood (Lewis, 2004), resulting in decreasing independent mobility and active travel.

Other reasons for decreases in children’s independent mobility and active travel include but are not limited to parental fears of ‘stranger-danger’, concerns about traffic safety and a perceived lack of quality playgrounds and other local destinations (e.g., library, education, extra-curricular activities) (Crawford et al., 2017; Donnellan et al., 2020; Foster et al., 2014; Ikeda et al., 2018a). Thus, car travel becomes normalised and the main ‘go-to’ travel mode for any activity (Lang et al., 2011). A resulting paradox is that the higher the traffic volume is, the less likely parents grant children licences to travel autonomously and children’s habitual activity opportunities and chances to become ‘streetwise’ are disappearing.

Children report particularly fearing busy intersections and parked cars when walking, biking or wheeling (Fusco et al., 2013; Mitchell et al., 2007). They are also worried about traffic during drop off times at school (Neuwelt, 2006; Wilson et al., 2019). Children feel their body size exacerbates the risks of injury as children are small compared to big cars; they fear drivers are unable to see them and their driving practices often indicate that they do not take other road users into account (Egli et al., 2020; Wilson et al., 2019). In addition, children often report that they are worried about the maintenance of pavements and see a need for appropriate street lighting; they are wary of stray dogs (Ergler & Kearns, 2013; Muhati-Nyakundi, 2019), bullies, and gang members (Fusco et al., 2013; Wilson et al., 2019). Children also dislike rubbish and broken glass and more generally vandalism and graffiti in their neighbourhoods (Fusco et al., 2013; Mitchell et al., 2007).

While children seem to focus more on the mundane everyday risks and interactions as barriers for active travel, adults often highlight barriers on the macro level. Urban design and in particular active living environments⁶ and specific features such as street connectivity⁷ and safe road crossings as well as shorter distances to destinations are dominant facilitators (Smith et al., 2017). In other words, the design of neighbourhoods (e.g., roads, crossings, public spaces) can signal whether children are (un)welcome and can restrict children’s participation and engagement to bounded and constrained areas (e.g., fenced playgrounds). Neighbourhoods that have better street connectivity (Jia et al., 2021), that have street designs supportive of active travel modes (Smith et al., 2017), and that promote safety from traffic (Smith et al., 2019a) are all important to allow and encourage children to get around their neighbourhoods actively. Having a school at the heart of a neighbourhood is essential -

⁶ Active living environments are defined as the emergent natural, built and social properties of neighbourhoods that promote physical activity and health (e.g., walkability).

⁷ Street connectivity refers to the density of connections in path or road networks, and the directness of links. A well-connected network has many short links, numerous intersections and minimal dead ends or cul-de-sacs (Victoria Transport Policy Institute, 2017).

having a school within 2.3 km from home means children are significantly more likely to get to school actively (Ikeda et al., 2018b).

Schools play an important role in determining children's travel modes through advocacy, policies, programmes, and school culture (Hawley et al., 2019; Ikeda et al., 2020). Ensuring student safety is at the heart of school travel practices and policies; community partnerships (e.g., with local police and transport providers), infrastructure, and travel behaviours of transport users around schools (e.g., driving practices of neighbourhood residents) all play a role in school active travel policies and practices (Ikeda et al., 2020).

Some schools encourage active travel through their travel policies, while others create barriers and normalise automobility by buying into and promoting the risk-based discourse of transport (Porskamp et al., 2019). Schools can discourage active modes and try to improve the logistics of dropping children off and picking them up to enhance traffic safety and reduce congestion around schools. Schools that support an active form of transport provide, for example, bike stands or allow children to lock their scooters away, organise walking school buses and impose parking restrictions (Kearns & Collins, 2006). Schools can also promote active travel to school through targeted programmes and activities (e.g., reward systems, cycle skills training), with research demonstrating community partnerships are important facilitators for these (Ikeda et al., 2020).

Partnerships with organisations such as local councils, police, and transport agencies have clear co-benefits (e.g., road safety education reducing traffic injuries; travel planning increasing active travel and reducing congestion). Partnering with such agencies can enable more comprehensive and sustained programmes than solely relying on a school's capacity to deliver a range of projects. Such partnerships have the added benefit of impacting change outside the school system as well, for example transport agencies can facilitate infrastructural changes (such as installation of pedestrian crossings) to improve student safety outside the school gate.

Overall, active travel to school is a complex socio-technical system. This system consists, as we have shown so far, of diverse decision-making logics, processes and practices at the micro (individual, family) and macro level (council, societal) that are entangled and co-constituted by diverse travel norms and expectations, infrastructure and policies. Thus, comprehensive community-wide approaches that support social cohesion, promote an active community culture, provide adequate infrastructure for active modes (including reducing distance to school), facilitate effective school and community partnerships, and keep children safe through programmes, partnerships, policies, and infrastructure are necessary (Smith et al., 2020). But why is it so important to get children walking, biking and wheeling to school and other community destinations beyond individual health gains?

Benefits of Active Travel and Independent Mobility

Being out and about, walking and cycling to destinations such as local schools, fosters a healthier lifestyle and is better for the planetary health by incorporating habitual activities in daily routines and through reducing CO² emissions (Freeman & Cook, 2019). Active travel is associated with significant improvements in child health outcomes, including increased physical activity, cardiorespiratory wellbeing and maintenance of a healthy weight (Falconer et al., 2015; Lubans et al., 2011; Schoeppe et al., 2013).

Active travel also offers opportunities for children to develop spatial skills and see, meet and interact with children of diverse ages and community members en route (Jarvis et al., 2017; Malone, 2007; Vieites et al., 2020). These interactions can create a sense of familiarity and trust; a sense of neighbourliness (Karsten, 2015; Weller & Bruegel, 2009). Neighbourhood communities lacking these arenas create places with little cohesion and place attachment. This aspect is especially important for children's 'environmental literacy' and the development of their own social networks and environmental and cultural learning opportunities. However, whether such learning can take place, depends on how parents perceive their neighbourhood. The more parents perceive their neighbourhood as a safe, cohesive and socially connected environment (Donnellan et al., 2020; Ikeda et al., 2018a, 2019), the more likely children get the licence to independently explore their surroundings, use active or public transport to reach destinations and thus are afforded the opportunity to gain confidence in knowing the social and physical environment of their local community beyond the school gates (Ergler, 2020, 2020a; Lin et al., 2017). An active journey to school particularly offers such learning opportunities.

On their way to and from school, children report enjoying spending time talking to friends and family members (Egli et al., 2020). Being on the move together can strengthen existing friendships and allows the forming of new networks through spending time together en route (Ergler, 2020, 2020a; Fusco et al., 2013). Often these networks span different age groups (Kullman, 2010). Children also enjoy playing together on their way or they turn their route to school into a game, searching for 'hidden spots', 'secret locations' and short-cuts or more 'scenic' routes (Cele, 2006; Kullman, 2010, 2014) and turning the built environment into a playground by finding great spots for jumping, skipping, running and hiding (Donnellan et al., 2020; Egli et al., 2020; Ergler et al., 2017a). Children get familiar over time with the microenvironment, and they know where to find interesting objects like fascinating mailboxes, flowers and insects (Cele, 2006; Ergler et al., 2020a).

Being on the move also allows children to become acquainted with the social environment of their communities as they meet different people along the route. They learn to negotiate who is a friendly stranger or identify local animals that are safe to interact with (Wilson et al., 2019). When children walk alone, they appreciate the time for clearing their mind and getting ready for or distancing themselves from the happenings at school (Kearns et al., 2012b).

Overall, children value spending time away from the adult gaze to develop their own rhythms and explore their neighbourhoods in their own pace and on their own terms (Ergler, 2011; Kearns et al., 2012a). They value the expansion of their own 'environmental literacy', and they feel energised by their trips socially, physically and mentally (Egli et al., 2020; Kearns et al., 2012a; Mitchell et al., 2007).

Children also value a scaffolded approach to their independence by being accompanied by parents and siblings or other adults as for example on walking school buses or cycle trains. This adult accompaniment helps children to navigate the risks of journeys and in particular traffic; supporting their learning of rules and the becoming of a confident independent active traveller (Kullman, 2010). The tradition of walking or wheeling school buses offers an organised, supervised learning opportunity to navigate diverse risks associated with active travel, but also creates an arena for valuing and enjoying the environment through a different lens such as appreciating the play opportunities of the natural environment in different seasons along the route (Ergler, 2020, 2020a; Ergler et al., 2016a; Kearns et al., 2003).

Mobile phones are also an important mediator for supporting children's mobility both as a distant parenting device for security and safety, but also a 'companion' that is co-opted into everyday life of 'hanging out', playing and creating diverse digital travel practices within and between groups along their route (Chaudhury et al., 2019; Ergler et al., 2016b; Nansen et al., 2017).

Moreover, active travel in the early years provides the foundation for a lifelong appreciating of active travel (Falconer et al., 2015). Teenage walking school bus graduates, for example, fondly remember their time on the bus and show 'traces' of enthusiasm for walking as an everyday form of active travel in an environment in which driving is the aspirational norm long after they graduated (Kearns et al., 2012a). These teenagers advocated for, and were inspired to incorporate, more sustainable urban mobilities in their routines. So, legacies of mundane practices in early childhood (Ergler et al., 2020b) have the potential to advance both personal health and more sustainable communities across the life span. The question then arises, how can we create a travel environment that contributes to a sustainable, healthy and inclusive community beyond the school gate?

Visions for Sustainable, Healthy and Inclusive Communities: Ways Forward and Potential Obstacles

Comprehensive approaches that embrace principles of low traffic neighbourhoods (LTNs) have considerable potential to support children's active travel and independent mobility. LTNs are designed to restrict through-traffic in residential areas, and ideally discourage residential traffic driving in general (Goodman et al., 2021; Walker, 2020). Characteristics can include narrowing streets/widening footpaths, blocking one end of a street, traffic calming measures, lowered speed limits, and signage directing traffic onto main roads (Walker, 2020). Self-explaining roads (Mackie

et al., 2018), play streets (Umstadd Meyer et al., 2019), and Barcelona's 'superilles' (superblocks) all share fundamental LTN goals of reducing (or removing) traffic and reducing traffic speeds in residential areas. The aim is to generate residential neighbourhood environments that support liveability and wellbeing through facilitating active travel modes, improving safety, increasing accessibility, and facilitating social cohesion through encouraging people to be out and about, to linger, and interact with each other.

Evidence suggests these approaches are effective—LTNs can increase active travel modes while significantly improving safety—a recent examination showed a halving of traffic injury numbers in treated neighbourhoods compared with comparison neighbourhoods (Aldred & Goodman, 2021).

Community-wide infrastructural changes using self-explaining roads principles have demonstrated reduced speeds in treated residential streets (Smith et al., 2019b; Hosking et al., in press) and improved safety for pedestrians and people using mobility aids when crossing roads (Hirsch et al., 2022). Emerging evidence of Barcelona's 'superilles' initiative of reclaiming local roads for pedestrian use suggests considerable benefits across liveability indicators (Speranza, 2018). Even temporary play streets can increase children's physical activity and support social cohesion (Umstadd Meyer et al., 2019). COVID-19 lockdowns have offered new ways for people to experience their neighbourhoods, including experiencing LTNs due to restrictions on mobility.

In the case of Aotearoa New Zealand, lockdowns gave children the opportunity to experience their neighbourhoods in ways of generations past; they reported walking and wheeling in their community more and appreciated numerous aspects of their temporary LTNs including feeling safe, seeing more people out and about, being able to hear birds, enjoying the peacefulness and quiet of having few or no cars about (Smith et al., 2022). Some cities have responded to the pandemic scenario through comprehensive delivery of infrastructure to support active travel modes while others have returned to their pre-pandemic rates of car use (Jáuregui et al., 2021).

Community social norms and values alongside political priorities and leadership can determine whether such interventions occur. Despite the clear benefits of LTN design approaches, tactical urbanism and temporary installations of LTN infrastructure have received considerable community pushback internationally. In some cases, this pushback has reached the extent of vandalism and illegal destruction of infrastructure by residents. Similarly, legislative approaches to reducing speed limits, and to delivering cycling infrastructure have received considerable public criticism (Field et al., 2018), compounding challenges to implementing infrastructural improvements. While some of these instances might be led by a small group of residents, they nonetheless create division and dissent across a community and make it politically challenging to deliver infrastructure, including stalling processes.

Urgent approaches are necessary to improve planetary and human health, yet political decision-making processes can take considerable time, so these delays can have substantial impact. An exploration of legislating for 20 mph neighbourhoods showed it took 20 years from recognising reducing traffic speeds as a potential public health and transport intervention, to legislative implementation (Milton et al., 2021).

Resident concerns about restrictions on individual car use and impacts of diverting traffic to bordering areas are key challenges to overcome. Extensive community consultation, engagement, and ideally comprehensive co-design including community leadership can all improve community understanding of the rationale for LTN suggestions.

Robust evidence, clear and timely communication, and strong community relationships are important priorities for enabling successful environmental changes. Strong political leadership is imperative alongside improved community engagement and leadership from within communities (Milton et al., 2021; Witten et al., 2018; Zografos et al., 2020). Even once infrastructure exists, the social fabric of a community is integral to shaping whether such environmental design interventions are effective or not. For example, as signalled earlier, school and community relationships, having an active community culture, and a sense of connection with neighbours have all been identified as important ingredients for the ‘recipe’ for children getting to school actively, alongside supportive active travel infrastructure (Hawley et al., 2019; Ikeda et al., 2018a; Smith et al., 2020).

Innovative strategies are needed to weave communities together with the shared dual purpose of supporting children’s active travel alongside improving social cohesion. Local businesses could partner with schools to support active school travel through provision of vouchers for walking school bus ‘drivers,’ allowing use of carparks for park and walk/ride activities and donating/loaning equipment for children). Stronger links between schools and the community could be established through allowing and encouraging the community to use the school grounds outside school hours. Additionally, community members could be engaged in supporting school active travel initiatives, including walking school buses, cycle trains, and scooter squads. As highlighted earlier, partnering with local government and non-government agencies is encouraged to support comprehensive and sustained programmes. Even employers can play a role, for example through allowing flexible work hours and work from home days to accommodate children’s active travel and avoid the need for trip-chaining. Local council and transport agencies can consult with children on environmental preferences and needs for active travel to help inform initiatives that are most likely to be effective in encouraging active travel modes. Mechanisms to support active travel in the community in general are also important to support a local active travel culture, increase everyday surveillance or what Jane Jacobs (2011) called ‘eyes on the street’, and to generate a critical mass of active travel mode users.

Conclusion

We started this chapter by explaining that the traffic generated by differing modes of travel to and from educational facilities is part of a complex socio-technical system. Thus, solutions to foster an active travel culture that connects schools and local

communities cannot be one dimensional. Solutions require a multi-faceted and multi-sector approach as travel norms, values and practices shape and are shaped by (and are deeply entangled with) the diverse social, institutional and physical conditions of travel environments at different scales.

We have shown that urban form and the built environment, school and central government policies and planning practices and regulations as well as employment structures and opportunities all inform transport decision making. Similarly, parenting norms, expectations and practices, but also what type of travel to school is sanctioned and how cohesive, inclusive and socially connected neighbourhoods are, contribute to the choice of travel mode. However, we highlighted not only that adults create, sustain or at times disrupt this complex and car-dominated travel system, but that children also create their own travel logics, processes and practices. Listening to children and their stories reveals their enjoyments, motivations, frustrations and concerns for their travel mode and for the microenvironments of their school routes.

Unpacking and outlining these complex entanglements and the multi-faceted nature of travel within communities highlights the complex challenges for creating an active travel culture that connects schools and with their local communities. Simply placing the burden onto schools to facilitate the required change will not bring the anticipated success, enhance local community connections nor respond to the needs of diverse community groups to create an inclusive travel system. In other words, we have argued in this chapter that schools should not be the sole role model, advocate, and change leader for creating an engaging and safe school travel environment that encourages and normalises active travel modes. Rather, we advocated for a multi sector approach that aligns central and local government strategies, shifts social practices and encourages the normalisation of active travel to any destination within a community. Encouraging and creating an environment that invites active travel to school is the first step towards this vision. This effort can be achieved through creating LTNs, but also new collaborations between businesses and schools to encourage, reward and make active travel easy and enjoyable.

In conclusion, neighbourhood communities (including school communities) are the building blocks of healthy, inclusive, and sustainable cities. However, to ensure such cities become a reality, innovation and leadership is required across all layers and scales of the socio-technical urban travel system. Rather than pointing fingers at specific sectors or actors to be the sole leader of the necessary change, a concerted and connected effort is necessary in which everyone and every sector plays a role in creating an active travel environment at the micro and macro scale that can facilitate safe, inclusive, cohesive and socially and physically connected urban environments. The existing socio-technical system that is so durable needs to be disrupted to create a sense of belonging beyond the school gates and to challenge and transform current travel norms and practices together with the physical environment of neighbourhood travel.

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Safe Yet Welcoming: Alternative Design Strategies for Secure Schools



Jamileh Jahangiri 

Abstract In recent decades, increased attention to safety and security issues in public spaces has changed the connection of Australian schools to their surroundings. Visible security measures such as high fences around schools are becoming a common feature of the urban landscape. The diplomat fence, a type of spear-topped security fencing, dominates many school boundaries regardless of the location and needs. Some analysts and commentators emphasise the necessity of such measures due to increased security concerns. Others argue that such measures create undue anxiety by constantly reminding students, teachers and the community of presumed threats. This chapter documents the author's research into defensible schools and discusses alternative ways to secure schools through urban, architectural and landscape design strategies, appropriate to context. Importantly, this research focuses on opportunities to remove unnecessary physical barriers and enhance schools' connections with their surrounding environments and communities.

Keywords School · Urban context · Security · Fences · Crime prevention through environmental design (CPTED) · School landscape

Introduction

When Australian schools were built during the 60s and 70s to accommodate children of the post-war 'baby boom', educational facility planners were not as focused on safety and security as they are today. In more recent times, concerns about the safety of school students have led to many schools being hidden behind security fences that have been installed without due consideration for site contexts or surroundings, insulating children from the broader public realm (Bracy, 2011). While these fences alone do not ensure a safe and secure environment for children, they are often a preferred choice for both public and private schools as they are hard to climb or cut and provide a low maintenance solution to safety concerns. The endless, rigid appearance

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of high school fences causes visual distraction, contributes to an impression that schools are exclusive and unwelcoming, and control the access of people who are regular visitors to schools anyway (Huang, 2012). Ensuring safety and security for students and teachers is vital. However, children also need to observe and learn about the nuances of social relationships, such as how people share a neighbourhood, a street or a public place (Lennard & Lennard, 1992). Designing community related facilities and social infrastructure based on fear and isolation is not the only way to prevent unwelcome visitors or keep children safe. A combination of other approaches should be considered.

Over the past 60 years, practice and research has demonstrated that thoughtful urban, architectural and landscape design can discourage crime and enhance safety (see for example, Jacobs, 1961; Newman, 1972; Saville & Cleveland, 1997). This body of research illustrates that school security can be addressed both actively and passively. Active security adopts solutions such as security systems, fences and bollards. Passive security relies on program design, building configuration and zoning, and community participation (Zahner, 2018). While no one has invented a foolproof facility design that eliminates all security concerns, boundary fences are not the only option for avoiding vandalism and enhancing security in the context of school and community buildings.

There is a need for learning environment design that increases social contact so that members of the community know each other, and intruders are visible (Merry, 1981). Passive security design, combined with active strategies where necessary, offers greater potential for students, teachers, parents, and local community members to use school environments with a strong sense of participation and care, while adding a layer of privacy, security, and protection (Zahner, 2018). Passive security measures are predominantly product-less and come with no 'hard sell' from commercial businesses trying to create a market. Rather, passive security approaches change the climate of safety in the community by encouraging a physical and socio-cultural environment that may have a positive influence on human behaviour.

Crime Prevention Through Environmental Design (CPTED)

To better understand security strategies in the school context requires a brief review of the literature related to the relationships between crime, urban planning and design.

The foundations of crime prevention through environmental design (CPTED: Jeffery, 1977) can be traced to Jane Jacobs' (1961) seminal ideas about people-centred approaches to urban planning and their benefits for creating safe and liveable cities. She advocated for clear demarcation of public, semi-public and private spaces (territoriality); eyes on the street (natural surveillance); and well used spaces and places (diverse land use). These concepts have been enduring contributors to neighbourhood design and passive security for decades, supporting the routine activities and social contacts that foster safer environments for adults and children: working, walking, talking, sitting, playing and watching.

Later, Newman (1972) brought together people-centred urban design principles with crime theory in his concept of *defensible space*, arguing that it is possible to design cities and their neighbourhoods in ways that decrease crime and positively affect behaviours and safety. Four design principles underpin Newman's (1972) defensible space model:

- **Territoriality** refers to physical (e.g., fences) or symbolic (e.g., landscape, signs) markers that define spaces and encourage groups of people to assume care and responsibility for places.
- **Natural surveillance** provides clear sight lines and views of places to minimise risk.
- **Access control** involves controlling access and movement into, out of and between physical spaces or buildings.
- **Image** requires fostering and maintaining positive perceptions of places and spaces through good design, pleasant aesthetics and regular maintenance.

These principles seek to create the perception of capable guardianship, as it is thought that well-kept and well-used environments show people care for and are in control of an area. Although aspects of these first generation CPTED principles have been subject to critique over the years, they continue to underpin crime prevention design approaches today (Saville & Cleveland, 2006).

In advancing Newman's ideas, Saville and Cleveland (1997) placed increased emphasis on the social factors that may counter crime, arguing for a combination of social cohesion, connectivity, community culture, and capacity. They referred to this approach as second generation CPTED, and suggested that the value of social programs, and community participation in their design, cannot be underestimated for promoting positive social benefits and community outcomes. Using defensible space design principles to understand and encourage desired patterns of human behaviour and place use is increasingly thought to support community activities and enhance safety (Crowe, 2000).

CPTED in School Design

For schools, the four design principles of CPTED can be enacted actively or passively, and across various domains of policy and design. Indeed, there are many ways to achieve territoriality, natural surveillance, access control and image depending on site location, culture and social organisation. Each school represents a unique mix of histories, attitudes and expectations, physical and social realities, protective factors, and risks that need to be considered within their context. An appropriate CPTED approach for one school may not be applicable to another. The security solutions chosen will affect the school, members of the school, and the school's connection with the local community.

As an example, the primary CPTED goal in higher crime areas is to provide a well-delineated boundary condition that balances safety with the need to promote the

learning environment as welcoming, inclusive and safe. According to architect and criminologist Randal Atlas (2007), automatically responding with active security measures such as high fences and security cameras can contribute a militarised feel. Indeed, educational researcher Rooney (2015) found that fences and spiked gates may align with public perceptions of traditional security, but may also reinforce community patterns of fear, insecurity and over-protection. Even when active security measures do not cause fear, they should never be applied uncritically.

A starting point for creating a secure school environment is a crime risk assessment, which can be carried out during school development (Saville & Cleveland, 1997). Site observations, consideration of social aspects, crime mapping of police recorded data, establishing the history of criminal activity, and interviews with selected users and municipal stakeholders underpin the steps schools need to take. Furthermore, questionnaires measuring the safety needs of a school can be devised with community input, identifying local concerns and the need to additional security measures.

It is also important to consider the full range of activities that will be offered by a school and complement that knowledge with a community needs analysis, thereby understanding how diverse users may positively activate school infrastructure and enhance security across a year (Crowe, 2000; Saville & Cleveland, 1997). Given the purpose of schools, a combination of information collection and review processes is desirable.

Safe and Secure School Design Principles

In 2013, Atlas proposed the Secure School Design Principles. These cover five key domains:

1. **Planning & policies**, including urban planning approaches, the impact of government policies and community participation.
2. **Physical environment**, such as building organisation, point of entry, interior space, system and equipment and community context.
3. **Site design**, encompassing landscape, exterior pedestrian routes, and vehicular routes.
4. **Materiality**, with a focus on material specifications for a building's fabric and the messages they convey about a school.
5. **Maintenance**, specifically facilities management policies and practices.

This relatively recent take on CPTED for schools draws on the evidence and discourse developed over the past 80 years. As for the CPTED principles that have come before, they offer insights into how policy makers, planners and designers can contribute to the creation of safer school environments: places to raise citizens of the future, promote participation, facilitate critical thinking, and ultimately create settings in which community and children can experience a better public life.

Implementing CPTED in Australian Schools

Fear of crime and concerns about safety and security appear to be increasing in Australia. On one hand, research shows that crime across the most populous state of New South Wales (NSW) has remained stable or fallen in recent years (BCSR, 2018). On the other hand, research suggests that Australians greatly exaggerate the risks associated with most major categories of crime (BCSR, 2019). So, despite the proliferation of school fences in Australia, CPTED informed research and practice suggests that alternative approaches may be more suitable for promoting safety and security in Australian schools. This section begins with suggestions for implementing CPTED in schools and ends with a practical checklist for school officials and design teams.

Strategic Suggestions for Implementing CPTED

The strategic suggestions below draw on case study analysis (see Jahangiri, 2020) and are based on the five domains proposed by Atlas (2013): planning and policies; physical environment; site design; materiality; and maintenance. For each domain, alternative methods for achieving a secure environment are considered, drawing on Newman's (1972) four principles of CPTED design: territoriality; natural surveillance; access control; and image. These approaches do not eliminate the use of fences around school boundaries; in some cases, it may make sense to protect specific school facilities and other spaces with fencing. However, rather than adopting fencing as a 'default' response, other strategies should be considered. The following list is not exhaustive yet provides strategic guidance.

Planning and Policies

Territoriality Moderate traffic flows around schools to support maximum walkability of 'pedestrian friendly' precincts, fostering children's sense that their school is part of the broader community; consider schools as a safe place for teenage students to play in after school, supporting their sense of belonging and care for school amenities.

Surveillance Raise public awareness of the issues associated with safety, such as having 'eyes on the street'.

Access Control Site the school to take advantage of existing physical or natural barriers.

Image Design school places and spaces that are easy to maintain, thereby promoting a positive image.

Physical Environment

Territoriality Zone school grounds to create a sense of belonging and ownership for users; use signage to make clear statements about use of school spaces; offer clear separation of any conflicting activities.

Surveillance Provide clear views of entry points; create highly visible activity areas to discourage misuse by offenders; avoid dark or hidden alcoves.

Access Control Design school entry points as ‘destinations’ so that there are opportunities for users to linger and interact; create a logical and layered sequencing of zoned access to various elements of the school; design entrances to allow users to see in before entering.

Image Create attractive landmarks within the school environment to aid wayfinding and to help people know where to gather.

Site Design

Territoriality Distinguish public, semi-public, and private external spaces from one another through physical features such as different finishes or colours of footpaths or introducing artwork or other landscape elements.

Surveillance Adopt landscaping that promotes higher visibility and fewer hiding places; design to provide maximum supervision with minimum personnel; avoid sudden changes of gradient that reduce visibility.

Access Control Use natural physical boundaries such as steep hillsides or other topographical features rather than walls or fences; sign all boundaries with ‘school zone’.

Image Ensure use of resilient planting in landscape features such as green walls so they look maintained; design robust external gathering areas to minimise damage from frequent use.

Materiality

Territoriality Provide several types of mural walls and similar locations for self-expression by the school community (e.g., student-made ceramic tiles).

Natural Surveillance Use permeable security grilles and doors to allow clear views and be sympathetic to the architectural style of the building.

Access Control Consider the strategic use of glass and windows to assist with passive supervision.

Image Specify sturdy and extra-durable materials without resorting to harsh, industrial-strength, prison-like materials; provide anti-graffiti finishes as appropriate.

Maintenance

Territoriality Implement a system to encourage the quick reporting of safety risks and increase pride in school buildings.

Natural Surveillance Ensure well-maintained trees and foliage in schools, alongside vandal-proof landscape equipment, to support clear sightlines into outdoor and indoor areas.

Access Control Check and maintain all accessing control measures to make sure they are functioning well.

Image Implement schedules for prompt cleaning, repair or replacement of infrastructure that is damaged and ensure the speedy repair of damage.

A Strategic Design Checklist

Bringing together the suggestions above, a strategic design checklist organised around Atlas' (2013) five domains is provided in Table 1. Use of the checklist may differ depending on a school's unique context and needs. Therefore, its use requires adaptation to suit individual schools.

Conclusion

Meaningful security is best achieved through a design that creates a safe territory for the users. Through good site planning and architectural design, we can effectively create settings that are less accommodating to intruders and offer a better public realm for the users and the broader community. However, American architect Kotob (Flynn, 2018) described security as a 'pie' comprised of legislation, policy, education, awareness, and technology, with architecture comprising one small piece. Creating a safe school is the responsibility of the entire community and all stakeholders and decision-makers need to work together to achieve this. Through thoughtful design and smart management of the built environment, we can provide a safe and liveable school environment. The most effective solutions are likely to be the ones which balance the needs of the community with both active and passive design strategies. To achieve this, all interested parties (e.g., students, parents, teachers, and community members) need to be involved from early in the design process to achieve an effective teaching and learning environment that supports schooling and embraces the community.

Over-designing safety measures and creating a prison-like environment can have a negative impact on both students and the community. Security features, while vital and necessary, should be as invisible as possible and incorporated into the school from the early stages of design. Effective school facility planning should embrace connections to the community that foster local context and regular patronage to create a far safer and secure socio-cultural environment than could be achieved by

Table 1 Strategic design checklist

Planning and Policies
Does the urban/architectural design recognise the needs and aspirations of the community, government agencies, key stakeholders and wider planning principles?
Have specific control measures been shared with the community?
Physical Environment
Does the design provide connection to the neighbourhood context and consider location e.g., rural, suburban, or inner city?
Is there an access control strategy?
Are transitional zones marked to delineate private, semi-private, and public spaces?
Are the building types selected and drawn with security in mind?
Is the material used suitable for the age group it is designed for?
Site Design
Does the landscape consider the locality of the campus including being rural, suburban or CBD?
Is there any ambiguity in the on-site design?
Are the private and public spaces well defined?
Do the paths lead to places where people want to go?
Are there clear and defined signs?
Are the existing slopes, mounds and hills incorporated into the design?
Has appropriate planting been specified as a barrier or as edge separation?
Materiality
Does the materiality respect and use the locality of the campus including being rural, suburban or CBD?
Have materials which reduce the opportunity of theft and vandalism been specified?
Are the materials used suitable for the age group they are designed for?
Maintenance
Does the school present a well-kept and 'cared for' image?
Are there signs instructing people on how to report maintenance problems
Does the design allow for good and easy maintenance

high security fences alone. When successfully adopted, the strategies outlined above have been shown to reduce opportunities to commit crime and increase perceived sensations of safety. This will make schools more desirable places to be, while creating a sense of identity and belonging within the wider community.

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Schools as ‘Sacred Enclaves’ or ‘Community Hubs’? South Korean Experiences



Hyung Min Kim  and GwangYa Han 

Abstract This chapter illustrates the South Korean perception of and policy approaches to schools from the perspective of ‘schools as community hubs’ versus ‘schools as sacred enclaves.’ It historically reviews aspiration to education and the geographical settings for it. High residential density characteristics have created superior environments for independent commutes and interactions between pupils and community members in South Korea. While planning approaches have advocated the role of schools in community building, there have been barriers, among which children’s safety is the most crucial. This chapter juxtaposes these two views by illustrating recent challenges in the removal of school fences and providing an example of community multi-functional buildings on a school site, arguing safety should be a firm pre-condition to leverage school facilities for society-wide community benefits.

Keywords South Korea · School · School fence · Ieumteo

Introduction

Schools are essential infrastructure in any city. In Korea, historically, education reflected the central value of society by nurturing aristocrat elites during the Joseon Dynasty (1392–1897). Education has played a pivotal role in modern Korea as well. With the collapse of the feudal class system in the 1890s, opportunities for education had gradually become available for all. Modern education was introduced in that period and the first elementary school—Kyodong Elementary School—was opened in 1894. After independence from Japanese colonial rule (1910–1945), 6-year compulsory education was planned in 1949, but it was implemented with delays

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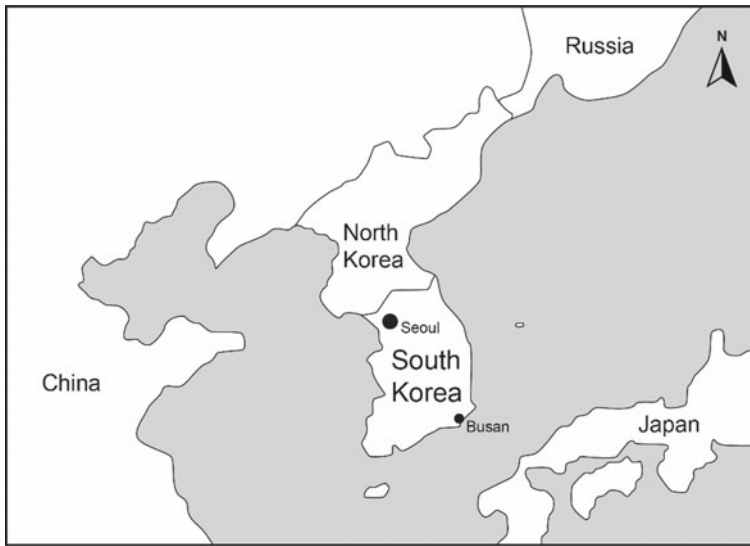


Fig. 1 A map of South Korea

because of the Korean War (1950–1953) and the pervasiveness of poverty (Kim, 2020). The 1950s witnessed governmental efforts to implement the 6-year compulsory education. 96.4% of school-aged children enrolled in an elementary school by 1959 although schools were over-crowded without adequate facilities (Nam, n.d.). As part of the 5th Five-Year Economic and Social Development Plan, compulsory education has been extended to nine years in 1985 including 6-year elementary school and 3-year middle school education. In 2021, 98.4% of school-aged children attended elementary school and 99.7%, middle school in South Korea. Currently, more than 70% of high school graduates have chosen tertiary education (KESS, 2021). Education for children has become one of the most important social issues in South Korea and the quality and reputation of schools are highly capitalised in property values in Korea (Park, Tidwell, Yun, & Jin, 2021). In fact, South Korean students are known as highly achieving students worldwide partly due to parental aspirations to quality education.

This chapter reviews two contradictory views on schools—in particular, elementary schools in South Korea (see Fig. 1). The first is the theme of this book—schools as ‘community hubs’ that actively encourage locals to interact with schools, contributing to the social capital of the local and school communities (Danford, 1953). The second is schools as ‘sacred enclaves’ in favour of the safety and autonomy of the school. This view prioritises safety and classroom education activities by minimising possibilities for any crime incidences and traffic accidents in and around schools. This priority can lead to rigid operations of school facilities. The second section describes how education facilities have historically played a role in community building in the Korean context. The third section discusses how school sites have

been treated in modern urban management by illustrating safety-oriented approaches and community-oriented approaches. The chapter concludes by envisaging the role of schools for students and communities.

Historical and Geographic Contexts of Educational Aspirations

In Korea, schools have played a central role in their neighbourhoods, beyond just being the venue for educational activities. Even within the past century, schools have functioned as a community centre, a place where residents can gather and communicate about neighbourhood matters. Schools have remained as the spine of many neighbourhoods for both pupils and their parents in planning documents (SMG, 2014).

Schools have been a focus in Korean society where each member aspires to rise in status. Schools have become a major determinant for where one chooses to live. This is because schools and education have long been a ladder of opportunity for moving into a higher class, either by passing the National Examination for Recruitment of Public Officers (958–1894) or through passing the modern version of the exam (1950–present). This national exam had been an obvious way to raise one’s social status in feudal Korean society, where government administration and education focused on norms of the individual constituting a community rather than market-oriented commercial and industrial activities. Additionally, education was also a means of maintaining the status of the ruling groups. Even today, after the Gap-oh Reform that abolished the status system in the 1890s, a variety of national exams have the same meaning to modern Koreans who aspire to live their own successful lives.

Accordingly, from the perspective of administrative bodies that guide the expansion of cities in Korea, schools, especially *good schools*, have been anchor facilities that ensure the success of urban development projects. In particular, public schools were an effective tool for government-initiated projects that often necessitate prompt implementation in closed decision-making settings.

From the view of the locals, schools have become a critical and reliable means of protecting and increasing the value of real estate property, by generating a large flow of population for both private education and commercial businesses.

Thus, schools in Korea have defined and continue to redefine the infrastructure and growth processes of cities and neighbourhoods. These cultural characteristics and their relationship with cities pose a question of whether schools exist for the sake of education only, the neighbourhood, or the well-being of the society? This question is addressed through the following discussions.

First, contrary to a general understanding, the growth path of Korean cities and neighbourhoods has been significantly guided by intentional development and supportive educational administration promoted by the central and city governments. Among the representative cases in the pre-modern age was the function of Hyanggyo,

which used to be a public grammar school in the old neighbourhood. Committed to teaching the knowledge of Confucianism and Neo-Confucianism, Hyanggyo was also the base of local administration run during the Joseon dynasty. If the neighbourhood was first formed around the well on the hillside, the Hyanggyo and the ginkgo trees planted around it symbolised the flourishing neighbourhood centred on the intellectual community.

Later, under the school ordinances for educational reform implemented at the last stage of the Joseon dynasty, followed by the Joseon Education ordinances of the Japanese colonial government, a group of western-styled schools was established by religious groups such as Buddhists and Cheondoists as well as missionary groups such as Catholics and Protestants. The missionary groups secured a large tract of land (such as that where the city wall once stood) or purchased properties around the city wall in Seoul, occasionally together with a charity hospital. Meanwhile, in the 1980s, particularly before and after the Asian and Olympic Games held in Seoul (1986 and 1988, respectively), a group of schools from the old area was relocated by the national and Seoul governments to outlying fields for new development. In this process, two modern city design concepts of the elementary school-centred Neighbourhood Unit (Perry, Heydecker, & Goodrich, 1929) and the Ville Radieuse (or Radiant City) (Le Corbusier, 1935) laid out with Cartesian skyscrapers surrounded by parkland, have been eclectically combined to form a utopian tool in Korea for developing a superblock community called “Danji” where the schools are in the core surrounded by a set of multi-family high-rise residential towers.

Second, Korean planned neighbourhoods are generally consisted of a group of high-density residential blocks, in contrast to European towns where small-scale production and commercial activities have for a long time developed both autonomous and community facilities in the centre of their neighbourhoods. The characteristic of Korean residential neighbourhoods can be attributed to the Euclidean zoning regulation in the United States and the City Planning Act in Japan (1919) that induced necessary separation between incompatible land uses in the residential district. Thus, an issue that arises is, how can the identity of the neighbourhood be symbolised in the built environment?

Many schools, regardless of public or private ownership, have been crucial in bringing in large populations that accompany the formation of community facilities such as stationery and bookstores, cafés, and restaurants. Unfortunately, these commercial uses, rather than schools, have increasingly become the centre of everyday living. Considering the functional roles of commercial establishments, the issue, in many neighbourhoods, is the absence of a central role for public use that would contribute to the sustained development of the locality and a real hub for the community. Until recently, elementary schools had significantly contributed to the formation of social community structures in which parents volunteered to help students get to school safely and extended their efforts to solve community problems such as the sanitation inspection of restaurants and caring for the elderly. However, this school-centred community function often ends when children move onto higher-level schools beyond their local residences.

Third, alternative educational facilities and various life-long educational activities have begun to replace and shake up the traditional function and status of schools in Korea. This situation was confirmed in a field study whereby local residents in Seoul rarely included schools in the cognitive map of their neighbourhood (Han, 2017; Han et al., 2021). Contrary to the traditional belief that children’s education and schools are a key component of the neighbourhood, these results indicate that schools are no longer recognised as the centre of residents’ daily lives (Han, 2017; Han et al., 2021).

Conventional location-based and face-to-face educational activities are rapidly being replaced by video education and ‘*untacted*’ online-based educational activities due to COVID-19 (Kim, 2021). In addition, a wide range of hobbies and life-long education led by local libraries, community centres as well as businesses and non-profit organisations have been carried out in cafés, restaurants, studios, and even empty spaces inside subway stations. Furthermore, the traditional marketplace, which declined after it lost its competitiveness as a local market, has recently begun to function as a cultural and artistic activity platform in the neighbourhood.

Two Views on Schools

Despite long-lasting aspirations for education and the significance of education facilities in Korean history discussed above, school sites have been under-utilised. There has been a tension between the two perspectives: schools as ‘sacred enclaves’ for students and ‘community hubs’ in South Korean public policy. Although spatial planning has acknowledged the significance of schools as central social infrastructures, anxiety borne of continued awful incidences involving children has been a barrier to uplifting the role of schools in local communities to be discussed below.

Schools in Modern Urban Development

On a city scale, schools are considered fundamental community facilities. Long-term strategic plans detail desirable future spatial structure, social inclusiveness, and infrastructure development. For instance, Seoul Plan 2030 identified five sub-regions and 140 neighbourhoods within Seoul. In that planning document, along with life-time education initiatives, schools play an essential role in sustaining the quality of place as key neighbourhood facilities (SMG, 2014). In particular, the Seoul Plan 2030 stressed the integration of schools with public (education) facilities such as youth centres, community centres, libraries, museums, and media centres to achieve *education communities*. This strategy supports a shift from school-centred education to the expansion of education along with local communities (SMG, 2014).

On a neighbourhood scale, as discussed above, modern Korean urban planning is highly influenced by Perry’s neighbourhood units that place an elementary school in

a central location within the neighbourhood (Perry et al., 1929). For instance, greenfield residential development projects included school sites in accordance with the planned population size. Those schools were planned to be within walking distance of 500 – 800 m from residential areas. For instance, the Yeongdong development project – the most influential greenfield development project in South Korea (Bae & Joo, 2020) – introduced the Apartment District where planning principles for schools were detailed in high-density development areas (SMG, 1976). Since then, apartments have become a primary housing type (Kim & Han, 2012). In that Apartment District plan, 13% of the total planned population (or 13% × 260,000 residents) were expected to be school-aged children, requiring construction of one elementary school per every 15,000 people or 16 schools in total in the entire planned site. By building high-rise apartments, a high number of new families were accommodated on a smaller land area compared to low-density development. By doing so, land for schools was reserved (Son, 2003b). Each elementary school site, to be in the central location of residential blocks in the Apartment District for the sake of safety, was larger than 13,000 m² specified by the government guidelines (SMG, 1976). Middle and high schools had also their own standards for school size. Despite some changes in school environments and guidelines, for instance, the number of students per class in elementary schools decreased from 62 in 1970 to 22 in 2020 (KESS, 2022; Kim & Han, 2002), spatial planning has continued to acknowledge the significance of school sites. In a more recent greenfield development project, Suseo in the southern fringe of Seoul in the 1990s on a land area of 1.35 km² with a planned population of 61.5 thousand residents, saw the planning and construction of 6 elementary schools, 3 middle schools and 4 high schools (SMG, 1996). In that project area, these school sites accounted for 11.5% of the total project area (SMG, 1996).

In Seoul, where approximately 20% of the total population lives, there were 616 elementary school zones within which children could attend in 2019 (Fig. 2). Their average area was approximately 800,000 m², meaning the average size of the school zone was approximately 900 m × 900 m or the radius of 500 m from the elementary school (Korea National University of Education, 2019). The small school zones highly encourage walking to the school, which is a desirable commuting outcome. In fact, the commute time of 99% of Seoul's elementary school students was less than 30 min in 2016 (Park, Song, & Kim, 2018). Thanks to the application of neighbourhood units and high-density environments, families from the same school are most likely to live in the same neighbourhood within walking distance.

To understand the same environment patterns around schools, which provide a hint for the possible school-community interactions, four sample figure-ground maps are presented in Fig. 3. In central Seoul, elementary schools are mixed up with a wide array of buildings including offices, heritage architecture, shops, and government buildings. Those schools, for instance, the Kyodong Elementary School (Fig. 3a), are smaller in size than contemporary schools being built at the outset of the modernisation of Korea. In conventional settlements such as northern Seoul (Fig. 3b), elementary schools are surrounded by residential areas mixed with low- and/or high-rise buildings. These conventional high-density areas do not have sufficient public open spaces, but school sites create valuable open space. In a planned neighbourhood

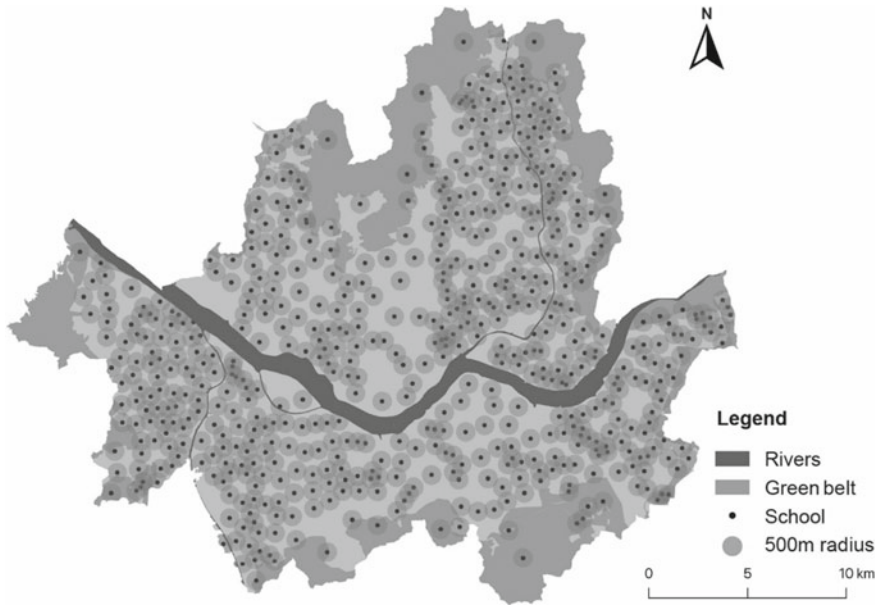


Fig. 2 500 m radius of primary schools in Seoul (Image created by the authors, with spatial data of school zones sourced from Korea National University of Education [2019])

(Fig. 3c), the principle of neighbourhood units was applied from the planning stage. Elementary schools are surrounded by high-rise apartments, and in most cases, foot-paths are established for children’s safety. In regional areas, elementary schools are under threat due to prolonged population decrease, a decline in fertility rates, and lower population density. Compared to large cities such as Seoul and Busan, elementary school zones are largely beyond walking distance. For instance, the average area of elementary school zones in provincial-level government areas was 18.7 km², equivalent to 3.8 km × 3.8 km (or a radius of 2.4 km). In this environment (Fig. 3d), more students are likely to commute by motorised vehicles assisted by public transport or parents although elementary schools are largely located in the centre of settlements. The population decline of regional areas has resulted in school closures. In the period 1982–2015, the number of elementary school closures reached 1,037 in total (MoE, 2016). Moreover, one in six elementary schools had less than 60 students in 2016. Most of these were in provincial-level government areas. For instance, more than 40% of elementary schools had less than 60 students in Gangwon, Jeollabuk, Jeollanam, and Gyeongsangbuk Provinces (MoE, 2016).

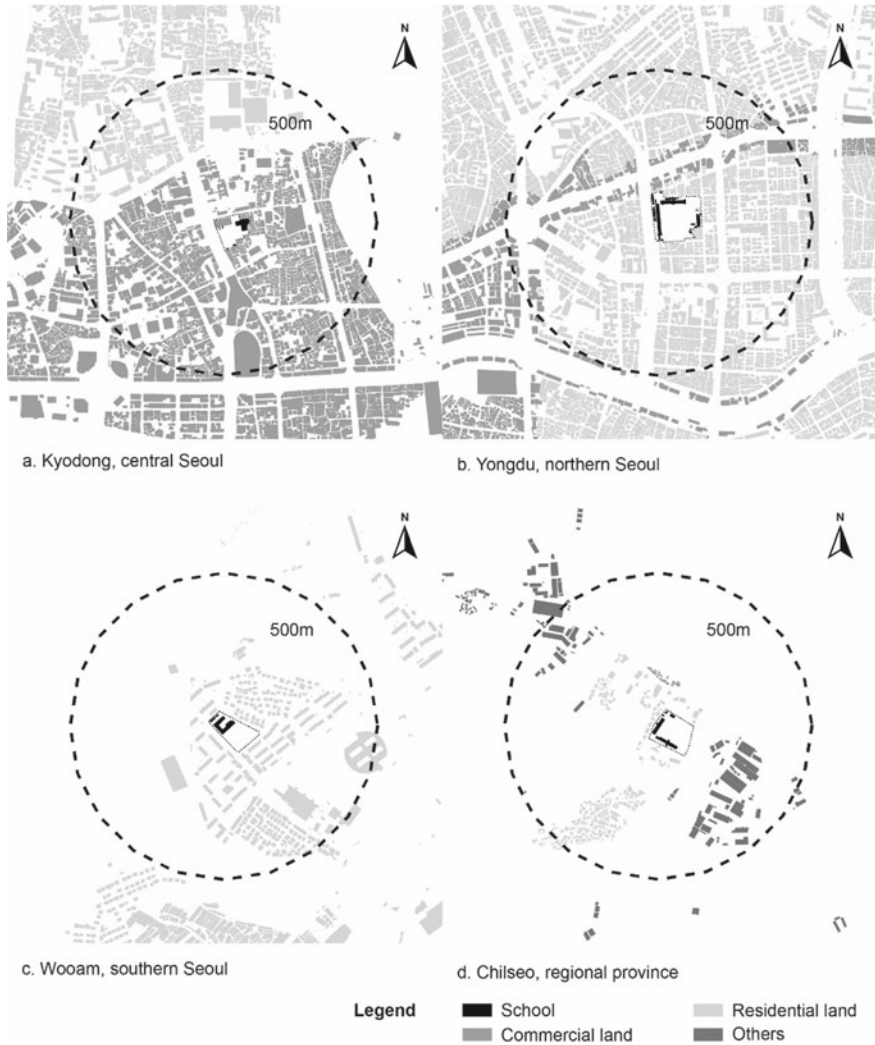


Fig. 3 Four elementary schools and their neighbourhoods (Image created by the authors)

Cultural Aspects

There have been cultural barriers to leveraging schools to become community hubs. The trade-off between safety for students and communal space for residents is a central issue. Complete enclosure might contribute to safe school environments but concurrently results in the loss of an opportunity to leverage the school facilities for the local community.

The most notable conflict may be found in school fencing policy. Schools (and even universities) were traditionally enclosed with solid walls to protect them from outsiders. Even parents are not allowed to enter inside the school fence without a permit. However, in the recognition of insufficient public space in high-density urban areas, in the 2000s, city managers proposed that school sites be used as an open space for residents (Kwon, 2014). Without school fences, schools became more accessible to the public, which generated contradictory consequences.

On the one hand, schools turned into vibrant places for sporting and community activities. The fences were replaced with trees and plants. In the period 2000–2010, 663 elementary schools, 182 middle schools, and 93 high schools demolished school fences with financial support from the local government (Bae, 2011). Along with this fence removal initiative, the concept of 'school parks' was discussed, which included planting on school land, and the instalment of sporting facilities, running tracks, and rest facilities accessible to the local community (Kim, 2012). 825 schools in Seoul benefited from the school parks initiative from 2001 to 2010 at a total expense of KRW14.7 billion (or USD 14.7 million) (Kim, 2012). Conventional high-density areas could obviously benefit from the public access to school sites due to the scarcity of public spaces, trees and shrubs within the neighbourhood.

However, on the other hand, public access means, by definition, anyone can access the school grounds. Growing concerns about children's safety have arisen. Several tragic incidents were reported in and around schools. For instance, Kim and Lee (2011) detailed three child sexual assaults during school hours within the elementary school sites in the period 2010–2011 that attracted great media attention. With widespread anxiety about children's safety on school sites, Crime Prevention Through Environmental Design (CPTED) emerged as an important design principle, with the removal of school fences being a target for criticism (Kim & Lee, 2011; Lee, 2014). As a result, the fence removal initiative was cancelled in 2011. Those schools that had already removed fences were asked by the government to re-install fences if security concerns remained (MoE, 2012a). This time the new fences were built with see-through materials. Now, most elementary schools are closed to the public, or the playgrounds are open for a limited time (MoE, 2012b), for instance, outside school hours (typically, 6.00 a.m.–7.00 a.m. and (5.00 p.m.–8.00 p.m.) with minor variations, depending on the policy of each school.

The incidents of crime noted above has led to further security measures. In 2011, the Seoul Metropolitan Government (SMG) introduced 'protection officers' (Kim & Lee, 2011). Two protection officers (or sheriffs) were deployed in all schools including special education schools. 546 protection officers were recruited in Seoul. Their role is to control visitors, monitor CCTVs, and maintain traffic safety in the school environs (SMG, 2020). Safety issues are particularly significant because unaccompanied commutes are common for elementary school students in most major Korean cities.

For safety reasons, School Zones have been implemented since 1995. School Zones are designated within 300–500 m from the main school gate and have a speed limit of up to 30 km/h, street parking regulations, and speed bumps. The School Zone policy was further tightened from 2019 by mandating CCTVs and introducing

additional punishments for offenders, after the fatal traffic accident involving a 7-year-old boy in a school zone (Chung, 2020).

Within the school building, there is room for parents to connect to school activities and other parents via the Parents Association, that have been institutionally nurtured since the 1990s (Son, 2021). After discussions about school communities, the school steering committee, including the Parents Association—a shift from a previous association that aimed primarily for financial support—commenced in the mid-1990s (Son, 2021). The overarching legal foundation for education—“Framework Act on Education”—endorses the operation of the Parents Association, stating that parents are allowed to participate in the operation of the school. In fact, a small budget is allocated for the Parents Association (Son, 2021). Parents can volunteer for crossing guards, libraries, excursions, and offering expertise (Park & Lee, 2021). However, the actual participation rate of parents in school activities of their children has remained low and the process is bureaucratic (Kim et al., 2018). Most volunteer parents are mothers, but with the increasingly growing labour market participation of females, parental participation in school activities is becoming increasingly difficult (Son, 2021).

Planning and Institutional Aspects

Schools are institutionally protected from negative externalities such as noise, heavy traffic flows, and entertainment facilities. The Educational Environment Protection Act, enacted in 2016, details prohibited activities within 200 m from the school gate, including activities that generate air and water pollution, septic treatment facilities, waste generating facilities, and noise/vibration generating activities. This act also regulates movie theatres with a restricted rating and other *business establishments harmful to youth* such as hotels, karaoke, and unhealthy food sales outlets.

Nevertheless, South Korean laws have allowed for mixed-use developments with school facilities in favour of positive externalities. Those mixed facilities that can be co-developed with a school include public facilities for both students and residents such as cultural and sporting facilities, parking lots, and life-long learning facilities. In fact, the mixed-use initiative has resulted in 129 sports facilities, 33 parking facilities, 28 swimming pools, 12 libraries and 22 other community facilities on school sites in Korea by 2009 (Oh, Lee, & Choi, 2009). Those facilities have been funded by public–private partnerships such as the build-lease-transfer (BLT) arrangement (Nam, 2006). One of the recent best practices in this regard can be found in Hwasung, Gyeonggi Province. Within J Elementary School, opened in 2015, on a total land area of 11,000 m² in 2017, a multi-functional building with a total floor area of 10,249 m² on a land area of 2,700 m², was constructed for the students and the local community (Cho, 2017; Lee, 2015). The five-storey multi-functional building, called ‘ieumteo’ (literally meaning linking places), includes childcare facilities, leisure facilities for the elderly, libraries, facilities for seniors, cultural facilities for youth, multi-purpose halls, seminar rooms, and parking lots on two lower ground levels, funded by the

Hwasung local government (see Fig. 4). Students can access those facilities as the school is linked to the multi-functional building through a connecting bridge. That building also created a shaded open space that can be used for community activities such as flea markets. The presence of *ieumteo* has facilitated social and educational opportunities for the community. A wide array of community programs has been offered at the multi-functional building including school holiday programs run by the locals, support programs for community clubs, community festivals, and community development programs.¹ Venue hires including lecture rooms, group exercise rooms, and a cooking lab, are available for the public at affordable rates. Figure 4 shows how this multi-functional building is laid out in relation to J Elementary school and the surrounding neighbourhood. However, by building *ieumteo*, the school lost land for an open-air playground. Hence, a portion of neighbouring parkland, as large as 5,700 m², has been converted to a playground next to the school (Lee, 2015). The playground, designed to serve school children during school hours and the public after school hours, was funded by a public development agency—LH (Lee, 2015). Along with the successful implementation of this mixed-use development, the Hwasung government further constructed four more *ieumteos* on (elementary or middle) school sites by 2021. This mixed-use development approach has been institutionalised by the newly enacted act—“The Establishment, Operation and Management of Multi-function School Facilities Act” in 2020.

However, unlike recent international practices such as Bruckner Tower in Linz, Austria² and Schönhof in Frankfurt, Germany,³ schools cannot be co-built with housing in South Korea. In a very early example of mixed-use development, a plan to co-locate a school and apartments was proposed for Sewoon Plaza in the 1950s. In that project, while the mega-structure was constructed, the school was excluded at a later stage (Son, 2003a). Given the fact that mixed-use development is popular in Korean urban development, restrictions on the co-location of multi-functional school facilities and housing developments illustrates how schools are firmly protected in Korean society. While those controls can contribute to safe school environments, they also limit an opportunity to create further community benefits centred on schools.

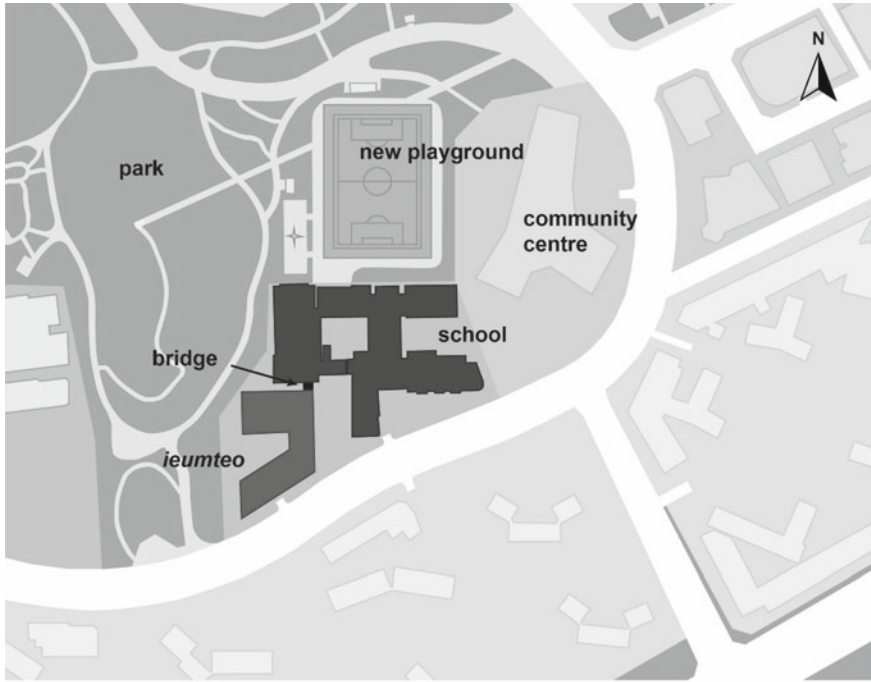
Future Directions for ‘Schools as Community Hubs’

There is no doubt that schools must be safe places. While traffic accidents can be mitigated by traffic control and pedestrian-friendly design approaches (such as separated footpaths for pedestrians), the complete constraints on public access to school sites remain as barriers to making schools community hubs. The health threats from

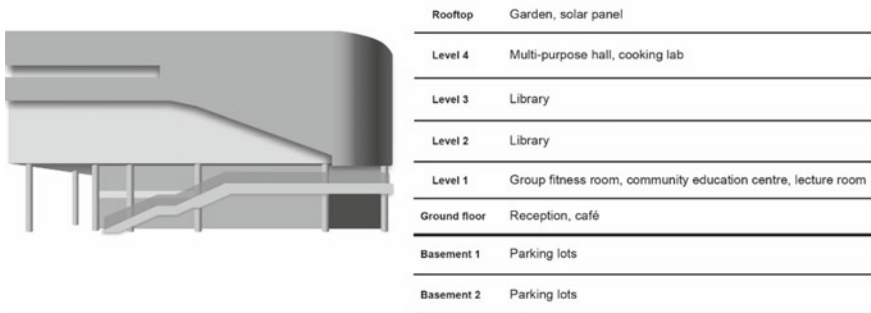
¹ <https://www.hstree.org/foundation/chungangGreeting.do> (accessed 2 Feb 2022).

² <https://www.brucknertower.at/index.php/der-bruckner-tower-lage> (accessed 2 Feb 2022).

³ https://www.stadtplanungsamt-frankfurt.de/s_dlich_r_delheimer_landstra_e_5054.html (accessed 2 Feb 2022).



a. J Primary School and *iumteo*



b. Layout of *iumteo*

Fig. 4 Elementary school and iumteo (Image created by the authors)

COVID-19 resulted in stricter isolation of schools for the same reason. Furthermore, growing patterns of multiculturalism from the influx of immigrants generate concerns about adequate support and equitable education facilities for them (Kim, 2017). Schools can be a place (or multi-cultural community) to learn how to live together with different ethnic groups. However, given the rapidly changing demographic structure and spatial imbalance as manifested in school closures in Korean

regional provinces, a shift towards active interactions of schools with local communities will bring about society-wide benefits. Decreasing numbers of students will lower the benefits from the economies of scale in school operations. For instance, schools with fewer students are unable to afford specialised teachers. However, inviting volunteers from the members of the community with expertise for students may be able to fill the growing gap in offering quality education. Further school closures will result in extended commuting distances in regional areas and challenge the nostalgic memories of school life among alumni.

South Korean cities have a sustainable built form that enables walking to school, which is a planning goal for some countries such as the USA and Australia (Bejleri et al., 2011; Pont et al., 2013). The high-density built environment also means schools are closely located to most of the residents. School sites, owned by the government, are public assets. Schools can be re-shaped into learning and interacting places for all. The conventional learning mode, centred on teacher-student relations favouring ‘sacred enclaves’, should be re-considered to reflect the changing requirements for new industries that call for creativity, flexible reasoning, critical thinking, and communication skills. Students will be better trained by actively interacting with a wide range of community members beyond schoolteachers and peers. The example of ieamteo demonstrated the potential for the expansion of school boundaries into the community. However, all these efforts can be progressed with a firm pre-condition of safety for which all available means should be employed.

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Designing

Progressive Pedagogies and Community Connections: Fifty Years of Urban Planning and Architectural Design



Simon Le Nepveu

Abstract This chapter reflects on fifty years of design industry experience working with schools to create better learning environments and community connections. It draws on the work of ClarkeHopkinsClarke Architects to explore changes over time with a focus on schools in Victoria, Australia. Starting with the work of co-founder, the late Les Clarke AM on Eltham College in the early 1970s, the chapter traces developments in school as community hub planning and design since that time and concludes with lessons learned about ‘Impacting Tomorrow’ through design that is sustainable socially, environmentally and financially. With a view towards scaling the concept, it is suggested that research-based evidence is needed to establish policies and practices that will enable schools to be developed as community hubs through joined-up approaches that involve enduring partnerships between educators, governments, and communities.

Keywords Schools · Communities · Community hub planning

Introduction

When reflecting with colleagues from ClarkeHopkinsClarke Architects (CHC), both past and present, on nearly 50 years of masterplanning and designing Australian schools to embody contemporary pedagogies and connect communities, what emerges are three constants critical to success: purpose, vision and partnerships.

Purpose has been at the heart of the better schools movement from the very beginning; not just within our practice but for our project partners too. Over the years our partners have grown to include school communities; local, state and federal governments; planners; engineers; landscape designers; community groups; sporting clubs; arts organisations; educational institutions, from early learning centres to vocational education providers and universities; and local businesses, from restaurants to swim

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schools. Collectively understanding ‘why’ we are designing a new building or facility leads to the ‘what’ and the ‘how’.

Vision has been pivotal too. It is the energy and evidence of advocates in the form of success stories that capture imaginations, allow partnerships to form, and encourage organisations and individuals to invest financially and emotionally in a project. Shared vision is important in mobilising a community and keeping focus when problems arise.

So, what has changed since our practice helped pioneer schools as community hubs in Australia nearly 50 years ago? Well, quite a lot!

Back in 1973 when our co-founder Les Clarke started Eltham College—one of Victoria’s first schools designed from scratch as a community hub—the educational design landscape in Australia was very different to that of today. Chalk, talk and tests ruled in schools, and facilities were standardised one-size-fits-all designs; created for swift, easy volume building during the post-war baby boom to meet the demands of rapidly growing populations. Rows of cellular classrooms lined central corridors, rows of desks faced the front, and rows of eyes followed teachers as they instructed, and students listened. In Victoria, design principles for community integration and conceiving schools as community hubs were virtually non-existent.

The Public Works Department allocated budgets and designs based on projected enrolments rather than commission bespoke designs responding to the school’s site, educational vision, or community needs.

Catholic schools¹ of the time were often conceived as an extension of their parish, offering a glimpse into the possibilities of schools conceived as community assets. School halls were often used outside school hours for parish meetings and events, and had strong connections to the parish community, if not the broader neighbourhood.

Wealthy independent schools appointed architects to design performing arts centres and sporting facilities, but these facilities were conceived as assets for school use. There was no financial incentive or overarching net benefit perceived within the school or its community to open facilities up for broader community use.

In this era, schools were generally narrowly defined places. People accepted schools to be largely vacant outside of school hours, aside from playgrounds.

Over the past 50 years, school designs have evolved to be bespoke, inclusive, learner-centred environments within a community context. They are a product of governments, communities and organisations that regard schools as important pieces of our urban and community fabric. State building authorities in Australia are increasingly conceptualising schools as community hubs.

¹ Australia has a large Catholic school network comprising over 1750 schools in 2021.

The Co-evolution of Pedagogical and Community-Oriented Design

The evolution towards developing community-facing schools mirrors progress in pedagogical practice and related school facility design. During the 1970s and 1980s, education gradually changed from an instructional, chalk-and-talk, one-size-fits-all model to a more nuanced, personalised approach that recognised learners of all abilities learn in different ways and benefit from different learning experiences and settings.

Learning from best international practice, progressive architects alongside progressive principals created local exemplars that explored the value of designs that responded to the specific needs of schools and communities. For example, co-locating and sharing facilities, like early learning centres and performing arts centres, within schools, can connect and enrich communities.

In the 1990s and early 2000s, pedagogy and curriculum responded to a growing body of evidence on the benefits of differentiated student-centred learning. Schools embraced diverse learning modes and settings, collaborative learning with peers and inquiry-based learning, and architects designed environments to support these approaches. Architects led stakeholder conversations about schools' pedagogies and the aspirations of the communities served. Architects and landscape designers worked together on connecting indoor and outdoor learning environments that delivered greater flexibility and tactility. Once a project was completed, practices like ours took time to work with educators to understand the affordances of the design rather than simply use new spaces in old ways.

Over the past decade, pedagogy and curriculum have responded to rapidly changing technologies too. Educational design has responded with inter-disciplinary learning hubs that integrate diverse disciplines, learning modes and settings. As a result, community partnerships and shared facilities have become more diverse too. School community hubs can include everything from adaptable indoor/outdoor event and exhibition spaces to specialised maker spaces, recording studios and high-grade sporting facilities.

At the same time, inclusive design has moved from a niche issue focused on students with disabilities to a mainstream concern encompassing gender, sexuality, culture and ethnicity. Schools and designers now understand they need to create learning and community environments that actively dismantle physical and cultural barriers to participation, normalising diversity of all kinds.

As pedagogy and school design has evolved, so too has the concept of schools as community hubs, including their design and operational potential. Schools leading the way in contemporary educational design are increasingly proactive in partnering with community groups to create and program shared spaces in ways that encourage learning, recreation, and wellbeing. This has evolved from simple co-locations of related community facilities that operate independently, to exploring more integrated and shared models of community use.

Simple steps have proved effective in achieving many of these partnerships. For example, at Mernda Central P-12 College, one of 15 schools CHC designed for the Victorian School Building Authority as a Public Private Partnership (PPP), the principal activated a shared public forecourt by inviting local food producers to trial a mid-week farmers' market (see Fig. 1). By offering to buy any unsold produce for use by the school's Food Technology program she made participation attractive for producers and for students. What better way to make learning about food production, economics and menu planning than by inviting local farmers into their school? The market was so popular that no leftover produce was available for the school to buy—but it contributed enormously to embedding the new school in locals' minds and lives. The Victorian School Building Authority New Schools PPP was a large multi-school project that focused heavily on integrating community partnerships into the social and spatial fabric of each school.

Leading architects remain impact-minded and future focused. The opportunities for creating partnerships with local councils and community organisations have progressed as the collective benefits have become better understood and more widely embraced.

The challenge is finding ways to collectively move beyond exemplars of schools as community hubs towards a system-wide approach to schools operating as the hearts of their communities. Just as design for inclusivity is becoming the norm through the widespread adoption of Universal Design Principles, we want to see schools for the future master planned and designed for contemporary pedagogies and communities as a matter of course.



Fig. 1 Farmers market at Mernda Central P-12 College (Photography by Rhiannon Slatter)

Key Projects That Embody Shifts Over Time

Spanning from the 1970s to the 2020s, the four selected projects reflect shifts in ideas of community, pedagogical approaches, and the enabling role of design.

1970s: Eltham College

In 1973 Eltham College, designed by CHC co-founder Les Clarke, became one of Victoria's first schools designed from inception as a true community hub. It was independent, secular and parent funded as a cooperative over many years of building works. Les recalls the school eventually bought back parents' shares, which initially cost around \$60 each.

The community ethos of Eltham College was typified by its multi-award winning ECCA Centre (which stands for Eltham College Community Association Centre). Built in just six months, it comprised a games hall, gymnasium, swim centre, squash court, licensed restaurant and one of the first commercial childcare centres in Victoria (Fig. 2). The combination was unlike anything being produced by design templates at the time.

In 1973, Les Clarke was a young dad living in Eltham who spotted a need in his community for a progressive local school. Twenty years later, Les received an Order of Australia for service to the community through the design of schools that incorporate community facilities. Eltham College became his most celebrated and influential project. It inspired then State Education Minister Lindsay Thompson to challenge Les and (unbeknownst to him) another designer to deliver an exemplar of contemporary educational design in just six months.

Using Les's design, Gladstone Views Primary School (Fig. 3) became the first new government school to be designed by a private architect and not the public works department. It cemented change with its then-radical open plan learning environment, delivered below the standard cost using a classic factory structure of steel frame, concrete floor and sawtooth roof. This project proved to be transformational in demonstrating the benefits of affordable bespoke design in meeting community needs.

As a result, the Minister changed policy and resource allocation to allow schools to work directly with architects to design bespoke schools based on their vision and community needs. His successor, Norman Lacey, co-opted the ECCA Centre concept, which he dubbed ECA Centres, and declared every school in the state should include one. This opened design possibilities for both local architects and schools keen to incorporate community focused facilities.

CHC went on to create co-op-funded ECCA Centres at eight more schools across Melbourne and Les evolved the concept further. With support from the Whitlam government, he undertook a six-month study tour of independent and government schools across Australia with the retired principal of Canberra High School and a



Fig. 2 Eltham College ECCA Centre 1973

quantity surveyor. “We took photographs and measurements, compared finishes and costs and sizes and all the rest, and ended up with ... the space schedule you still work to,” he recalls. This work created an average cost structure for schools and helped inform architects as they developed bespoke designs throughout Victoria.

Nearly 50 years later, CHC is still designing facilities at Eltham College. Designing schools as community hubs requires collaboration and long-term thinking, aiding design that embodies the changing needs and aspirations of schools.

Central to Les’s success was vision, collaboration, and good economic sense born of detailed research. Les visited international exemplars of contemporary educational design in the United States, United Kingdom and Europe and was inspired by early learning centres based in some US schools, open plan classrooms for team teaching he saw working well across England, and schools like one in Nottingham that warmly welcomed its community by co-locating everything from a kindergarten to a theatre, restaurant, golf range and ski slope. Looking back, Les told me research gave him the vision, passion and confidence that got parents and politicians behind progressive

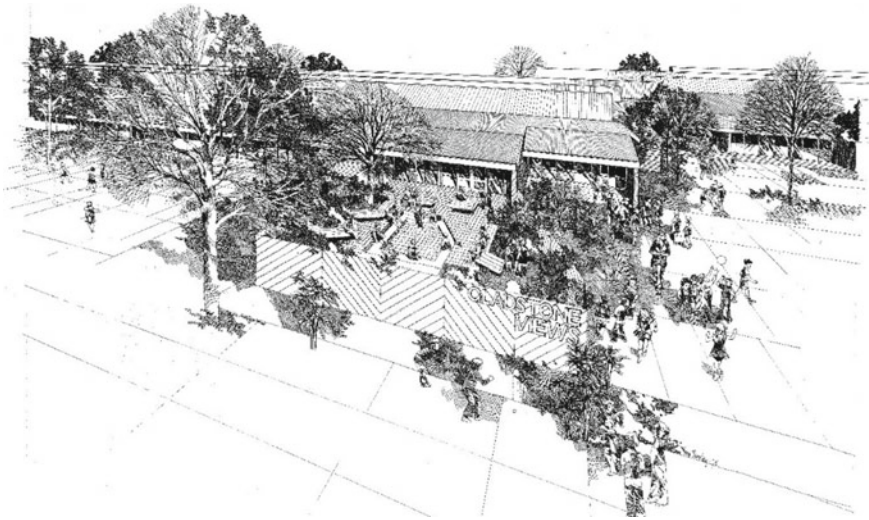


Fig. 3 Concept perspective of Gladstone Views Primary School

ideas. “Research makes a champion,” he said. “You’ve got to do the research to find out where we can head. If you do the research, you can push yourself to the forefront, because you’re coming up with ideas based on good evidence.”

1980s: Yarra Valley Grammar

In the decade that followed, performing arts centres were embraced by government and independent schools alike as valuable facilities to share with their communities. Jack Clarke (no relation to Les), another CHC co-founder, pioneered an economical approach that enabled schools to combine games halls, theatres and multi-purpose spaces in one facility.

Like Les’s ECCA Centre model, Jack’s model was informed by an international study tour of exemplars. On his return, Jack researched compatible dimensions for combined sporting and arts facilities, which worked well for students while also meeting the requirements of various sporting codes and their community competitions. Performing arts centres established at schools like Nunawading High School and Doncaster High School have operated successfully to their communities for decades.

In the late 1980s at Yarra Valley Grammar another former partner, Robert Goodliffe (then a young project architect), designed a facility featuring permanent seating for 890 people (temporary for 1000), making it the largest performing arts centre at an Australian school at the time (see Fig. 4). It attracted performances by



Fig. 4 Perspective image of Yarra Valley Grammar Performing Arts Centre

major companies including The Melbourne Symphony Orchestra, who added it to their regional touring itinerary.

Access to artists of this calibre is invaluable for both for the school and the broader Yarra Valley community. But this facility was also designed as a teaching tool. An essential requirement of the design was to provide students with the opportunity to perform on stage and manage and operate all the technical components in the centre, including lighting, audio, back-of-house functions and front-of-house-operations. Once again, vision was the key to creating this key piece of shared school and community infrastructure.

2000s: Officer Education Precinct

By the late 1990s and early 2000s, the conversations that drove Victoria's best educational design outcomes had expanded significantly. In the early days, it was visionary principals who helped architects develop project briefs. Stakeholder engagement often involved just the principal and a handful of others (not necessarily teachers). Consultations were sometimes just the school's principal and business manager. One of our former partners, Ezio Costa, quipped, "Thirty or forty years ago, stakeholder engagement went something like this: The business manager would ask, 'How much will it cost?' and the principal would ask, 'How soon is it going to be finished?'".

The process of master planning and designing the Officer Education Precinct in Melbourne's rapidly growing outer south-east was far more collaborative. This project combined a secondary college, specialist school for students with disabilities,



Fig. 5 Officer Education Precinct Masterplan 2016

primary school, community hub, and early learning centre, and was the product of three years of consultation with organisations including the Department of Education, surrounding primary and secondary schools, community groups, local families, the Australian Education Union and the Cardinia Shire Council (see Fig. 5).

Early and widespread consultations in 2011 were key to the success of the project, helping to establish everyone’s overlapping needs and aspirations. This was critical because two years later when the precinct began to develop Officer Secondary College, federal, state and local funding streams were all attracted in the same financial year based on the early engagement around a shared vision for what the community needed. That’s a rare feat, even today, and one of the great challenges of creating schools as community hubs.

Consulting early and widely also generated great buy-in from stakeholders once funding was secured. By then Cardinia Council had undertaken a strategic review of community infrastructure and identified a shortage of local indoor sports facilities. The council proposed a shared indoor multipurpose complex for sports like futsal, European handball and volleyball, and the Officer Secondary College Community Hub was born (see Figs. 6 and 7).

The result is a multi-purpose community hub incorporating a three-court indoor sports stadium, a performing arts space, community meeting areas, sporting administration space and a commercial kitchen with barista facilities used by the college and specialist school during class time and opened for community use after school and on weekends. While various funding streams and diverse stakeholder partnerships were time-consuming and sometimes tricky to manage, the school and its community now enjoys better amenity due to economies of scale.



Fig. 6 Officer Education Precinct multipurpose sporting facilities (Photo by Rhiannon Slatter)



Fig. 7 Officer Education Precinct community hub (Photo by Rhiannon Slatter)

2020: Beaumaris Secondary College

For the past two decades my colleague Wayne Stephens, Education Partner at CHC, has been part of the progressive global movement that has placed learners at the heart of school design. Learner-centred design has transformed learning environments worldwide, shifting the focus to designing flexibly around the changing needs of diverse communities of learners. Wayne talks about the need for learners to inhabit space that intuitively ‘gets’ them. Officer was an early example of this approach.

Beaumaris Secondary College is another example that shows how stakeholder engagement can deliver facilities that reflect community aspirations.

The new college was built on the former site of Sandringham College's Beaumaris Campus. This had recently closed yet had strong community support and advocacy for a government secondary college of the Beaumaris community. We began master planning Beaumaris Secondary College in 2015 and worked with a diverse New School Planning Group that included representatives from the Department of Education and Training, Bayside City Council, Melbourne Cricket Club, principals from local primary and secondary schools, community groups and future parents. "In developing the school's pedagogical vision, it was clear this strong focus on community connectedness, the local environment and health needed to be embedded in the design," Wayne recalls.

Through a partnership between the Victorian School Building Authority and Melbourne Cricket Club, we explored opportunities for shared sporting facilities. As a broader group we undertook multiple stakeholder visioning workshops and site visits to new vertical schools. Achieving the shared community vision for an exemplar community sports precinct required the school to minimise the land area occupied, hence the multi-storey solution. The main building is a multi-level learning hub that creates a civic presence on a prominent corner and incorporates a double-height administration and resource centre, specialist program facilities at ground level, and general learning spaces over two levels above. The adjacent single-storey activity centre (Fig. 8) is designed for shared school and community use. It comprises a games hall, canteen, performance centre and food technology spaces, and is connected to the learning hub via a central plaza. Extensive recreation facilities include two specialist high performance ovals for cricket and Australian rules football, a multi-purpose pitch incorporating a FIFA grade 1 soccer pitch, and a sports pavilion designed to be utilised by the school and community sporting groups.

As described by Wayne:

The campus is designed to foster a strong sense of belonging within the school community. Hence the welcoming public plaza, clear physical and visual connections between circulation and gathering spaces and school and community facilities. Learning communities (general learning areas) include gathering areas, seating nooks and work benches within the central circulation zone to promote interaction, engagement and activation of the spaces for socialisation and learning... It can be hard work for all involved to create shared facilities of high enough quality to meet the needs of amateur and professional sporting codes. But it's worth it in communities where there's high demand for after-hours use of facilities of this calibre.

The new facilities at Beaumaris Secondary College bring the community together. High performance cricket facilities are used throughout the week, including during school hours, and the sports stadium, sports pavilion, ovals and multipurpose pitch are used every night of the week and every weekend.

A clear and robust joint-use agreement is central to the success of strong community partnerships. This should lay out shared understandings about how best to work together and navigate the sometimes-competing needs of all partners. Doing so can help create a successful, symbiotic relationship between a school and its community, enabling it to function effectively long into the future.



Fig. 8 Beaumaris Secondary College activity centre 2020 (Photo by Rhiannon Slatter)

Key Lessons About Master Planning and Designing Schools with Community in Mind

These pivotal projects, and others created throughout CHC's history, have provided key learnings that have informed the development of our work in connecting schools to their communities. Evaluating what has worked well and what hasn't at the end of a project is a priority, allowing our practice to continually build and adapt our approach to working with communities as their needs evolve. Here are some key themes and takeaways, based on our collective experience.

The Role of Schools in Communities Has Changed

At CHC we talk about creating vibrant communities and have developed a methodology that guides our projects by identifying the key tangible and intangible elements of great placemaking and incorporating them into every project. We see every school project as an opportunity to enrich community life, with the school at the heart of every community.

Schools need focal points for bringing people together, connecting populations and creating a sense of belonging beyond just the families that attend the school. We no longer build the town halls, the churches and the community health centres that we once did, so schools must play enhanced roles as hubs for community.

Understanding of this concept has developed from the early days of our work at Eltham College, to the recent Beaumaris Secondary College. More communities are now demanding this level of community connectivity. Ideas that were once seen as trail blazing are now part of the general design discourse.

The role of schools will continue to change as they embrace community needs. Designers need to continue to anticipate, meet and exceed these aspirations to enable schools to flourish at the heart of their communities.

Staying True to the Community Vision to Overcome Inevitable Obstacles

A strong, shared vision is vital to the success of projects and is developed through broad consultation and engagement with representatives of the entire community. Engaging deeply in these processes takes time to do well, but the downstream benefits to the masterplan and design of a project are often significant.

The creation of such a vision at Officer Education Hub, for example, laid the foundation for the strong partnerships that followed. This can be a challenge and a risk when design deadlines are set, funding is committed, and outcomes need to be met. However, it is through the creation of a strong vision that hurdles can be overcome. When joint use agreements start to get complicated, or the technical or operational elements of sharing facilities create concerns, it is coming back to this shared vision that provides direction.

For example, the challenges associated with safety and security, operational overheads and ongoing facilities management can sow doubt in partners' minds. If creating a school as a community hub is appearing too difficult, returning to the aspirations of the shared vision often provides the necessary focus to overcome obstacles to realising long term objectives.

Community Hubs Need Champions, But They Can't Do It Alone

The importance of a champion in visualising, realising, and activating a school as a community hub cannot be underestimated. This might be one or more people—a school principal, architect, community broker or organiser.

In the early years of Eltham College, Les Clarke learned to become a visionary champion who can inspire others and lead the way for that community to achieve its aspirations for the school. Quite often this role is taken up by a visionary principal or school leader with foresight and conviction. The champion needs to be an articulate advocate who can get others excited and shape strong partnerships between the school and its community.

The challenge and risk is the vacuum that can be left if the champion(s) leaves and the strength of the community partnerships leaves with them. This is where a shared school vision and support structures help ensure longevity. This includes having the operational support, policies and resources required to ensure success, both within the school and within government. Even at Eltham College ECCA Centre, which was a celebrated community hub, the commercial restaurant and childcare facilities were forced to close after a decade when the government ended incentives that were crucial to their success.

Aligning Design Responses to the Community

Part of our responsibility as educational designers is to align our design response to the meet the needs of the school today, while allowing for future growth. This means understanding where a school is currently and where it wants to go and using design to help bridge that gap.

The same principle applies to design for community partnerships. If the aspiration is too far from the current reality, then design will not be able to bridge the gap. Careful analysis and consideration of all potential community partnership options at the early stages is vital to ensure that nothing is master planned out and that there is room for the community to grow with the school. At the Officer Education Hub some of the community partnership opportunities did not come into play for several years after precinct development began. However, the masterplan had flexibility to allow these partnerships to grow with the precincts development. Elements of the Officer Education Precinct Masterplan can still be realised should the community require it.

At the heart of aligning the design response to the community is the principle of creating shared value for both the school and the community. There are tangible learning opportunities through community partnerships and obvious benefits for the community to access more integrated facilities. The key from a design perspective is balancing the needs of both.

The Future for Schools as Community Hubs

At CHC we aim to use our expertise as architects, interior designers and urban designers to build environments that meet communities' needs today and positively impact tomorrow. We have used this approach throughout our 60-year history to impact school communities throughout Victoria and beyond. The evolution of schools as community hubs during this time makes us optimistic about how the concept will continue to develop.

In the early years, visionary leadership, a pioneering spirit, dedication and even luck was required to establish community partnerships in a school and help them

flourish. Now, partnerships are more commonplace and better supported by policy and the wider community.

Maintaining the strength of partnerships beyond master planning and design remains a challenge. A future focus on operational and management support for schools as community hubs is needed to support schools and community organisations to work together. Visionary aspirations can only be delivered if there is operational funding and management support to allow school communities to work together in the longer term.

Education systems, different levels of government, community organisations and communities need to work collaboratively to create holistic policies, systems and operational models for how schools as community hubs function. Moving from the current model of ad hoc exemplar schools showing what is possible, to a system-wide approach of designing and operating all schools as community hubs is where the future lies.

Further research and evidence are needed to guide productive decision making. At CHC, we have always underpinned our design responses with research. From Les Clarke's study tours in the 1970s to inform approaches to designing schools, to my current business Partner Dean Landy's placemaking research and resulting book *Creating Vibrant Communities*, we've found the best design solutions stem from rigorous, evidence-based research. Likewise, the Building Connections: Schools as Community Hubs ARC Linkage project is building an evidence base to illustrate how schools can become community hubs and the value of creating enduring partnerships that put schools at the heart of communities. This is a vital step in the evolution of schools as community hubs, helping to unlock system-wide approaches to impacting tomorrow with greater speed and at greater scale.

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Designing for the Needs of a Thriving School Community Hub



Peter E. Moeck and Angela K. Branford

Abstract This is the story of a community hub in an independent South Australian faith-based school. The aim of this community hub is to address multi-generational disadvantage with an agile approach that is personalised to the needs of local families. While co-located infrastructure exists—comprising a school, church, kindergarten, public sector children’s centre, opportunity shop, community shed and emergency housing—there is a need to promote connections within and beyond this infrastructure through a dedicated community hub space. To address this need, in 2020 we prepared an architectural design concept for a welcoming community space located at the intersection of school, church, and kindergarten, providing a physical structure to ‘wrap around’ the existing personal services. This space has yet to be built but will ensure the community hub can help people develop the capacity to change their own lives. The ethos, culture, and approach that has been adopted for this community hub is based on the ‘Family Zone’ model developed by Lutheran Care. The vision for this hub has wellbeing as the focus which resonates with the shared values and mission of school, care agency and church. In this chapter we, the school’s principal and the architect who developed the architectural design, reflect on the school community’s journey. The common theme is that it takes time to build cooperative relationships, connections, and trust. ‘You are welcome’ and developing a sense of belonging is at the heart of developing this community hub.

Keywords Community hub · Multi-generational disadvantage · Wellbeing

Introduction

The Calvary community aims to support the needs of its multi-generational disadvantaged population. Located in South Australia, this community evolved from a

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church congregation to a campus with education services (from birth to 12 years of age), together with a collection of critical support services and social enterprises. For over 45 years, the Calvary community has endeavoured to remain true to its mission of being a place where 'love comes to life'. Calvary's services are championed by the campus community and operate according to the values of inclusiveness and restoration where all are welcome. For example, Lutheran Care delivers the Outer Southern Homelessness Service from the campus and the church operates a community pantry, opportunity shop and a community shed. But more needs to be done to support the children in the community, one quarter of whom are assessed as developmentally vulnerable in their first year of school (Torrens University Public Health Information Development Unit [PHID], 2019). By designing a dedicated physical space to facilitate the development of the Calvary community hub, this project aims to reduce the negative effects that socio-economic disadvantage has on children. The community vision for this hub has wellbeing as the focus, which resonates with the shared values and mission of school, care agency, and church. A welcoming community space located at the intersection of school, church, and kindergarten will help achieve this vision, providing a physical structure to 'wrap around' and enable the personal services. This space has been designed, but not yet built. In this chapter we, the school's principal and the architect who developed the design, reflect on the school's journey toward becoming the cornerstone of the Calvary community hub.

Origins of Our Community Hub Approach

The Calvary community hub is an initiative of Calvary Lutheran Primary School, which is located next to Calvary Lutheran Church. Both the church and school are in Morphett Vale, a suburb situated within the City of Onkaparinga, 25 km south of South Australia's capital Adelaide. The Calvary Lutheran Church was established in 1976. Calvary Lutheran Primary School was an initiative of the church congregation, opening in 1983 with 36 enrolments accommodated in two second hand transportable buildings. Permanent buildings were added in 1988. The campus grew to a single stream Reception to Year 7 school in 1992, within a H-shaped arrangement of purpose built and modular construction with cell-like rooms. For an extended period, enrolment numbers remained low due to limited resources. The appointment of a new principal in 2012 led to a holistic review of strategic focus and direction with a resultant rapid increase in student numbers; there are currently 255 students enrolled at the school. The community hub initiative also arose from the new principal appointment, after co-author Branford observed deficits in child development, engagement and learning outcomes. These deficits were attributed to complex social and emotional challenges, which the hub initiative aims to address.

Abuse and neglect can have a severe, long-lasting impact on children's overall development, which often has the effect of reducing their capacity to concentrate and to learn. By understanding and building relationships with traumatised children, teachers can make an

enormous contribution to their lives. Children who develop an attachment to their school and a love of learning will have greater resilience in the face of adversity than those who do not. (Geary, B. as quoted in Child Safety Commissioner, 2007)

Socio-Cultural Context

Most Calvary Lutheran Primary School families live in suburbs within the City of Onkaparinga. The Population Health Profile for the City of Onkaparinga paints a picture of disadvantage and mental health issues (Torrens University PHID, 2019). As the Population Health Profile outlines, the Index of Relative Socio-Economic Disadvantage indicates a score of 852 for the local population, relative to Australia's base rate of 1000, implying a high level of disadvantage. Approximately one third of the local adult population receives government support as their main income source. Approximately 15% of the adult population has high levels of psychological distress and the number of people accessing mental health services is 27% higher than those living in metropolitan Adelaide. Children in the City of Onkaparinga also face higher levels of psychological distress than in metropolitan Adelaide; between 2013 and 2018 there was a 43% increase in children and young people becoming clients of Child and Adolescent Mental Health Services. Together, this disadvantage and psychological distress is culminating in one quarter of local children being assessed as developmentally vulnerable in their first year of school (Torrens University PHID, 2019). As a result of the clear disadvantage facing areas like the City of Onkaparinga, The Government of South Australia Department of Human Services (2021) announced that a new Intensive Family Support Services program to be funded for four years and delivered by seven not-for-profit organisations across the state. The intent is to address early intervention for vulnerable families on the cusp of entering the child protection system.

The Importance of Developing a Community of Learners

The Australian Curriculum identifies critical competencies—knowledge, skills, behaviours and dispositions—that educators are required to teach children (Australian Curriculum, Assessment, and Reporting Authority [ACARA], 2021). These competencies include literacy, numeracy, information and communications technology capabilities, critical and creative thinking, personal and social capacity, and ethical and intercultural understanding (ACARA, 2021). It is increasingly apparent that within the Calvary community, children are becoming more advanced in these competencies than adults. This prompted Calvary Lutheran Primary School leadership to think about how to support the adults associated with the students to develop their own critical competencies. It is hoped

that supporting the adults will help develop a *community* of learners, and in turn reduce the number of children at risk of taking on ‘the parenting role’.

What Evolved and Why

The wrap-around community hub program being established at Calvary Lutheran Primary School called ‘Family Zone’ is a work in progress. This process has been described by co-author, Principal Branford, as akin to ‘fixing the plane whilst it is flying’. Over the past 8 years, Principal Branford has fostered a prevailing attitude focused on identifying and addressing the needs of the students and their families. The development of Family Zone at Calvary has been inspired by another Family Zone child and parenting program developed by Lutheran Care and delivered over the last decade at Ingle Farm Primary School. Ingle Farm is a suburb north of Adelaide located within the City of Salisbury, which is of similar disadvantage to the City of Onkaparinga. The team at Family Zone Ingle Farm operated by Lutheran Care have contributed a wealth of knowledge and encouragement regarding direction, advice, mentoring, funding, and program opportunities. At Ingle Farm, the Lutheran Care family and relationship services team is the conduit to access counselling services, parenting workshops and education programs. Additionally, the team facilitates placements of those undertaking post-graduate studies in social work, to develop their skills through informal relationship building conversations with parents. Salisbury Communities for Children have brought together a diverse group of agencies and developed a place-based approach to support families, inspiring the creation of something similar based at Calvary Lutheran Primary School (Brettig, 2020).

One of the first steps that Calvary Lutheran Primary School has taken to develop their own Family Zone is to create a new staff role of ‘Family Zone Connector’. The role of ‘connector’ is to partner with the learning and teaching team to and engage community and families through their school relationship. The school has a strong culture of ‘servant leadership’ which is values based and evidenced by constant, stable and caring support. Servant leadership theory argues that effective leaders are servants of their people (Fryar, 2001). Over time, this commitment to leading through servitude has built a reputation within the local community that Calvary is a ‘safe place’ to learn and grow. Therefore, the school is the ideal location for building community hub facilities because the school can leverage parental and care giver willingness to support children.

Lutheran Education South Australia, Northern Territory and Western Australia (LESNW) are enthusiastically supportive of the establishment and evolution of Family Zone at Calvary. LESNW view this community hub as a pilot project. The lessons from this pilot will provide a framework that could be adopted by other schools within the Lutheran Education system which are also located within disadvantaged communities. The program is working in collaboration with the church which is a home base for school chapel and gatherings. This home base offers a breakfast club, distribution of food hampers, and Thursday community lunches that

include take home meals for families. Church facilities are the location for the delivery of seminars such as domestic violence awareness and host professional sharing and debriefing sessions to enhance family health and wellbeing.

The Calvary Community Hub hopes to similarly bring together diverse groups of people and services. The existing services offered by the City of Onkaparinga council are suited to achieving this goal. The council offers a range of initiatives focused on community development, including forums that bring together diverse organisations on topics such as low income, networking links, community updates and support services. These forums, instigated by local Council, have developed partnerships between community members under the Healthy Cities Onkaparinga program (Healthy Cities Onkaparinga, 2021). Foodbank SA provides the schools breakfast program, vouchers for families in need and food hampers. The Food Embassy connects community members through food and is keen to partner with community members to deliver educational cooking programs that focus on nutrition and creating balanced meals for families in need. The Food Embassy will complement the students' garden currently being implemented by the Year 4 educator and students.

Further, an after-school hours home-work club, and a program called 'Move and Groove' for parents with pre-school children, are both currently being developed, as is a series of Q&A sessions at parent and caregiver information sessions on topics such as superannuation. 'Carpark conversations' is a recent initiative created in conjunction with the local council's community development team and a Flinders University social work student on placement. 'Carpark conversations' aims to get Calvary community members talking to one another, in turn promoting community building and developing networks of people helping people. Parents are sharing their aspirations for a connected and engaged community. A list of parents' and carers' contacts and skills has been created, which can be shared to support the educator and the families of the students. The combination of these council and school services with the community's willingness paves the way for the Calvary Community Hub to succeed.

An Eco-System of Partnerships

The five pillars that underpin the strategic intent at Calvary Lutheran School are learning, wellbeing, high quality teaching, and an eco-system of partnerships and stewardship. Stewardship is about the effective operation of the school to ensure its longevity for learners making it a safe investment for families. The development of networks and linkages is about establishing partnerships. The objective of this community hub is to build capacity and create a positive social impact within the school community. After all, strong communities are founded on healthy childhood development and children have the inherent capacity to bring people together (Brettig, 2020).

Integrated Service Model

There is a need for clear synergy between the aims of the school and the community it serves (Black et al., 2010). This synergy is reflected in the integrated service model, which enhances family wellbeing by providing access to needs-based support programs, professional services, and volunteer assistance. The integrated service model has been successfully implemented by Family Zone at Ingle Farm, where it continues to evolve to suit the profile and needs of the local community (Goodenough & Wilson, 2020). Programs are designed to facilitate the physical, emotional, social, and cognitive development of children from birth to 12 years of age in a familiar environment. The aim is for parents to feel at home as they meet with others who are going through similar experiences. Building trust and rapport and supporting families and communities to develop a sense of belonging is a key focus of the integrated service model. The importance of belonging is echoed by Lutheran Care (2021):

From the day we are born, we yearn to belong. Belong to family. Belong to friends. Belong to community. With the support of those around us, we have the strength to discover who we are, where we fit in, and how we can realise our full potential. Beyond working to have a lasting, positive impact on people's lives, we are determined to build hope, understanding and drive long term systematic change.

Similar aspirations and values guided the vision for the Calvary community hub.

Antecedent Community Hub Designs

Community Hubs Australia has established 92 community hubs, several of which are based around schools (Community Hubs, 2021). Lutheran Care are a delivery partner for this program in South Australia, along with 10 other participating schools in both the public and Catholic sector. Community Hubs Australia use an evidence-based model targeting communities with high migrant and refugee populations and socio-economic disadvantage with a focus on community engagement, improving English competency, early years education, and offering vocational pathways (Community Hubs, 2021). The community hub at Calvary has been inspired by the mission, values and methodology developed by 'Our Place' in Victoria. In partnership with the Government of Victoria Department of Education and Training, 'Our Place' has expanded from a pilot project in 2012 at Doveton College to now operating in ten schools (Our Place, 2020). At the heart of this visionary Schools as Community Hubs program is community and working with local organisations and individuals to make a real and lasting difference to the lives of children and families. The 'Our Place' team describe themselves as 'the glue' that supports children and their families to succeed (Our Place, 2020).

The Government of South Australia Department of Education and Childhood Development (SADECD) is actively promoting Schools as Community Hubs in

schools and preschools for facilities to be shared across communities. Their objective is to enhance wellbeing outcomes for children and young people and to build connections and opportunities for lifelong learning in communities. Community goals include active participation, safety, health, education, belonging, play and leisure. The feedback from hubs already operating lists the key elements underpinning success. These include leadership that is committed to initiating and driving the hub's vision, respecting cultural differences, facilitating community connections, creating a welcoming space, effective communication, and collaboration (SADECD, 2017). Building a positive culture is assisted by assigning a 'hub champion' and coordinator, having structured activities with clear purpose within a dedicated space. This culture is sustainable when everyone involved is open to sharing information, knowledge, and resources (SADECD, 2017).

Social Misconceptions

Social misconceptions need to be addressed to facilitate student and family aspiration and agency. Calvary is keen to spread the message that people are not defined by their postcode, and that failure in life is not inevitable. The 'REACH for success' initiative at Calvary Lutheran Primary School identifies the core values held by the learning community and strives to develop students' self-belief and confidence. The acronym 'REACH' in the school motto stands for relationships, engagement, achievement, 'Christ-centred' and holistic learning. It arose from a professional learning project through the Association of Independent Schools SA with a focus on developing and leading an effective school wide pedagogy for learning and teaching. This was informed by research on teacher leadership being a transformative process that can drive school and community reform (Crowther et al., 2009).

Community Vision

The vision for developing a Calvary community hub is to enhance the existing co-located services by co-creating a common vision and purpose which can be achieved with collaboration and cooperation. Currently this exists as a network encompassing the school, care agency and church settings. Our intention is to develop this network by creating a welcoming physical space at the front of the campus once design concepts are realised and funding becomes available. Research on the benefits of co-located school-community partnerships suggests children and families benefit from improved connections and better access to services (Sanjeevan et al., 2012). However, there are multiple challenges when it comes to collaboration, sharing, management, support, and funding, challenges such as access to services, shame, fear and transport to name

a few. A successful community hub involves all parties appreciating the need to share their funding and resources.

The work undertaken to date for the Calvary community hub initiative incorporates the basic ingredients for a tailored place-based approach using strategies successfully implemented by others. Common issues when developing a community hub include facilitating consultation, the establishment of a committed leadership team, ensuring genuine collaboration within the partnership, responding to local needs, undertaking regular monitoring, and providing adequate resources. The general conclusion is that it will take time for tangible results to appear (Our Place, 2020; SADECD, 2017; Sanjeevan et al., 2012). A change in leadership for the church has led to the community hub vision being embraced by campus leaders of the co-located facilities. There has been a positive shift in the conversation towards a culture of sharing and the recognition that there would be mutual benefit in building the physical infrastructure to support Calvary community hub.

Shifting the Culture

In 2013, Calvary Lutheran Primary School had an 11-stage master plan developed, which mapped the opportunities for progressive transformation of the built form to create distinct junior, middle, and senior primary learning communities. The learning environments were holistically reworked in 2016 for the junior primary cohort and in 2018 for the middle primary cohort. These environments provide a range of settings that are readily adapted to suit active and reflective activities, encouraging collaboration through connectivity and ease of access indoors and outdoors. The central feature of each learning community is a welcoming space that encourages family connection and community fellowship. The work of artisans is integrated into the architecture with purpose designed graphics and built-in features including a reading tree, outdoor enhancements and street art arising from an artist-in-residence program that involved all the student cohort. The latter has placed the REACH theme on the street frontage to signify the importance of this aspirational message.

The education approach at Calvary has been informed by the Berry Street Education Model (BSEM; Berry Street, 2021). The Berry Street Education Model provides pedagogical strategies that incorporate trauma informed positive education. The objective is to increase the engagement of students in reference to self-regulation, relationships, well-being, growth and academic achievement. A pilot evaluation of the Berry Street Education Model in mainstream schools demonstrated the model can benefit student wellbeing, achievement, behaviour, and engagement (Stokes & Turnbull, 2016). Shifting the culture of the school relies on parental engagement to embed the change. There has been a shift in needs for the students to the point where 50% of the cohort was placed on individual learning plans. The learning practices and the structure of the learning day has now shifted to support a range of individual learning styles.

Building Capacity

Developing a culture of supporting others to build their own capacity is a strategy that will sustain the Calvary community hub. We learn and grow together and then share this growth with others. Students and families who have engaged in this manner become the next wave of volunteers. There are several examples of this deeply rooted connection and support extending beyond the primary school setting when families move to other schools. This has occurred because the trusting and safe relationships that develop are enduring.

Distributed Leadership

Through involvement with the Association of Independent Schools SA, Calvary Lutheran Primary School's leadership team identified students' sense of agency as the main driver for change. The foundations and enablers of agency were linked to the implementation of the Calvary Learner Map. The current hypothesis—that the development of metacognition enables students to self-regulate their learning—is being tested with feedback about abilities to set goals, reflection on student narratives and conversations with students about their current reality. The instructive writings about creating cultures of thinking (Ritchhart, 2015) and about innovation in education (Leadbetter, 2012) have been influencing and shaping the case for change. Student agency drives decision making at Calvary and this translates to the wider community. The objective is for students to emerge from their schooling experiences as purposeful, reflective, responsible young people, investing in themselves actively to achieve goals they devise and endorse to shape the future for the better (Leadbetter, 2012). This has inspired the development of collaborative and collective agency for the wider community. Holding the narrative of 'growing deep' has also been instructive. Lutheran Schools and early childhood services value the richness and diversity of the wider community and other education sectors. Positive and strategic partnerships are developed when relationships are built upon support, trust, and reconciliation (Lutheran Education Australia, 2016).

The Design Concept

The physical environment can play a key role in enhancing user-friendly service delivery by creating settings that are comfortable, safe, and attractive. The architectural design concepts for creating a centralized physical facility for Calvary Community Hub were prepared in 2020 in collaboration with Calvary Lutheran Primary School Principal and the Family Zone Connector. The design places the inclusive space where families gather and connect at the heart of the campus, with

a focus on accessibility and making people feel welcome. This will embody the core design principles outlined by Weeks (2004): accessibility, presentation, location, a welcoming entry, provision of information, cultural diversity, wellbeing, safety, user participation spaces and co-location of interrelated services. The modest addition will connect the reception and administration with consulting and multi-use gathering spaces and a kitchen. The design concept will be tested and iterated with stakeholder input. It will create a space for the community within a restful garden setting that is scaled and formed to embrace the user and uplift the human spirit (Branford & Moeck, 2020).

Funding Approach

The main challenge to making the design concept a reality is funding. The independent school sector relies on the Australian Government for part-funding of building projects through the Block Grant Authority (administered by the Association of Independent Schools South Australia). The allocation of capital to each state is based on the state's population. The available funds are allocated based on demonstrated need and the school's socio-economic status score, which reflects the extent to which those who attend the school are disadvantaged. The value of projects competing for the capital funds is often twice to three times greater than what is available, and there are strict guidelines around exclusive educational use. Accordingly, there is a need to seek a funding partner for the development of spaces for community use. Lutheran Education SA, NT and WA are keen to use the journey towards a community hub at Calvary Lutheran Primary School as a pilot to develop a framework for other school communities in the independent sector. The current strategy being explored is to make a case for philanthropic financial support by demonstrating and quantifying the measurable social impact and educational, health and wellbeing benefits. Lutheran Care have expressed interest in evaluating the effectiveness of the program and measuring the social impact of the long-standing community hub program, Family Zone at Ingle Farm. Methods used by other sectors and agencies addressing the needs of the disadvantaged has the potential to inform a viable funding approach for this project.

Conclusion

A key lesson from the COVID-19 pandemic is to focus on the local. This has challenged us to reframe the traditional sense of mission from overseas initiatives to those within our local communities. Calvary community hub is one such initiative. The increased cooperation between campus leaders is encouraging. It is hoped that a philanthropic connection can be found and fostered to fund building

a welcoming community space. This space will allow the Calvary community hub to thrive, gain momentum, and continue having positive social impact.

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Planning Doveton College: Holistic Vision, Innovative Design and Paving the Way for Others



Laurence Robinson

Abstract Doveton College is a unique project in the delivery of integrated community and education services for a community in need. It is one of the most comprehensive and successful examples of a school as community hub and since its opening it has been a strong influence for the delivery of many other projects with similar ambitions. This paper explores the planning context for the project, the key architectural strategies that led to the success of the design and some of the lessons learnt during the process and since opening.

Keywords Schools as community hubs · Partnerships · Design strategies · One front door

Introduction

Doveton College is a pioneering project in Australia for the provision of integrated education and community support. The college, now in its 10th year of operation, delivers education from birth through to Year 9, along with a range of other services including Maternal and Child Health, allied health, playgroups, community and adult education, community engagement activities and a range of other social and recreation programs. It is probably the most comprehensive and illustrative example of a school as a community hub that exists in Australia or possibly anywhere in the world.

The vision for Doveton College came about largely through the lobbying efforts of philanthropist Julius Colman and the Colman Foundation (Our Place, 2013). Colman had been inspired by a visit to Agassi Prep in Las Vegas, USA, a public charter school that was enhancing the educational outcomes of children in need with the support of the Andre Agassi Foundation for Education. In 2007, Colman approached then Victorian Premier John Brumby with a proposal to provide funding to a new school

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aimed at transforming the lives of underprivileged children in a socially deprived community in Victoria.

The timing of Colman's approach was fortuitous for three main reasons. First, Victoria's Department of Education and Early Childhood Development (DEECD) had commenced the Building Futures initiative, a program that enabled government to work with schools and communities to plan for school infrastructure developments, in areas where changes in demographics meant that the existing school structure was no longer fit for purpose. Doveton was a good fit for the program and other regenerations were occurring in nearby suburbs.

Second, the Commonwealth government was working on a National Early Childhood Development Strategy, focussing on the provision of integrated early childhood education, connected with schools, to ensure all Australian children are fully prepared for learning and life.

Third, the subsequent announcement of the Commonwealth's Building the Education Revolution (BER) program provided a catalyst for the project to proceed quickly and provided a multi-tiered capital funding stream for the project. The contract for the first stage of construction was also signed on the last day of the Brumby government.

This alignment of programs, policy and funding across tiers of Australian government enabled a holistic place-based, child-centred approach for Doveton College (Fig. 1). Although other regeneration projects had sought to raise educational standards in low performing and socially vulnerable areas, Doveton College was the first in Australia to specifically target a particular "at-risk" community, with the aim of drastically boosting educational standards and, hence, whole of life opportunities for children of the community through intervention, family support and community integration (Glover, 2020).

With early evaluations highlighting the positive impacts of the Doveton College approach, the Colman Foundation established Our Place to facilitate the partnerships necessary to scale the approach to other locations in Victoria (Our Place, 2013).

This chapter explores the project context, design strategies and lessons learned from the Doveton College project, from the perspective of the lead design consultant: Brand Architects.

The Service Delivery Model

The service delivery model for the school is unique, developed at a local level with a focus on the needs of the local community around Doveton.

The delivery model and educational programs were progressed largely in parallel with the physical design, during 2009 and 2010 by the Doveton Regeneration Project Board, a separate body established by DEECD and the Colman Foundation, to oversee development of the school. In 2010, the board also engaged the Centre for Community Child Health, one of Australia's preeminent research institutes in childhood development, to assist in the development of a needs analysis and service model for the Early Learning Centre (ELC).



Fig. 1 A holistic place-based, child-centred approach for Doveton College (Image by author)

Initially, it was thought that all services could be run directly by the Doveton College Council. However, as planning proceeded and the funding streams to support school operation were explored, it became apparent that due to the split of federal and state funding for different types of programs, and the way in which this funding was distributed, the school council would be ineligible to receive funding for many of the programs that they wanted to run. This led the Regeneration Board to develop memorandums of understanding with a broad range of community organisations, to run programs from Doveton College under the guidance and supervision of the school council. To date at least 17 different MOU’s have been established with organisations across a broad range of services, focusing on both early childhood needs, as well as family and community services, justice and social security.

Once the initial service model was established, there was a need to further develop the educational model for the school. In early 2010 (again in parallel with the physical design) a pedagogy and programs working group was established to work with

the project board. This working group consisted of representatives of the South Metropolitan Region (DEECD), staff from existing schools and consultants to shape an educational philosophy and framework, specific to the college's needs.

The educational model applied at Doveton College “focuses on personalized learning and ensuring that every child’s education is structured and tailored to meet their (individual) learning needs and supports high levels of achievement” (Our Place, 2013, p. 30).

To support the educational model, the program was developed across a 3-level structure—the ELC which focuses on 0- to 5-year-olds, the Early Years Program for students from Prep to Year 3, and the Middle Years Program, for students from Year 4 through to Year 9. In physical terms, this led to the development of purpose-built “learning houses” and specialist facilities for ICT, digital media, visual arts, performing arts/technology, and fitness and recreation, to provide state-of-the-art facilities to support students to reach their true potential.

The governance structure for the school is also unique. Initially Colman wanted to deliver the programs through an independent school, but with the significant funding from both the state and federal governments and the need to close and merge other state schools in the area to allow the college to be feasible, a unique arrangement was developed.

Doveton College is governed by a school council that uniquely has representation from the Colman Foundation, the community and the Department of Education, written into its charter. The foundation holds a third of the seats on the school council, but the position of School Council President is still held by a separate community member, as with most other government schools. This arrangement ensures that the original vision of the school is maintained and that school’s funding streams for various services that are not provided by the (now) Department of Education, can be sourced through either philanthropic or other sources.

Our Place is the organization established by the Colman foundation to further the vision and mission of Doveton College and apply it to other sites in partnership with the Victorian State Government.

Project Planning Processes

Brand Architects were appointed under the BER project management as Principal Design Consultant to work with the college and the Colman Foundation, to bring the vision to physical reality. As with all BER projects, which were aimed at economic stimulus, the project had a tight timeline, with the aim of opening the first stage of the school by the end of 2011.

As with almost all Victorian State Government education projects, the project started with a standard brief regarding the facilities entitlement for a P-9 college, of the size anticipated. A process was established to examine the spatial requirements, with the intention of adding spaces to the brief that were required to provide the additional services anticipated.

Every additional square metre added to the brief had to be justified and approved by the department, based on either a direct need for service delivery, an additional space justified by the educational program, or space that was able to be funded outside the available brief.

To commence this process, Brand Architects developed the facilities schedule in detail, distributing available area within an overall site strategy. To commence the process of determining and testing additional areas, the architects then worked with the project board to initially brainstorm the types of activities that might be operated from the college. A draft schedule of areas over and above the standard entitlement was developed and perhaps not surprisingly, the total amount of area required exceeded the available funding.

Following this, a series of meetings was held with the City of Greater Dandenong (the local council), independent service providers and other organisations, including government departments and authorities. These meetings were aimed at determining the level of interest from the various service providers in operating from the college site, including what space might be required, what level of integration could occur and what operational issues might arise, including issues of privacy, information security and physical access.

While initially most service providers showed great interest in the project and its overall vision, there was some hesitancy in committing to taking space within the college, particularly where operators were providing services from other facilities nearby. Because of this, there was initially some guesswork applied to determining the spatial requirements, and although the college board was confident that all space would be taken up, there was initially some resistance from the education department to providing additional space that could not be immediately justified.

As an additional strand to the planning process, several community consultation sessions were held with parent groups from the local schools that were being merged to form the new college. The project board was attuned to a level of scepticism within the community to the new project, as other services had been closed within the Doveton area in the years immediately prior to the project. A significant amount of work was done by the Colman Foundation and the project board to bring interested members of the community on board early in the process and have them involved in the planning, to ensure that the government's commitment to the project was well understood within the community. The information obtained from these community consultation sessions was valuable and informed several the architectural strategies outlined below.

The original site for the project, Doveton Heights Primary School, was deemed to be too small on its own to accommodate the anticipated number of students. To the north of the site is the Doveton Pool in the Park, which occupies the remainder of a larger open space block, within the suburb. As part of the project, the council agreed to sell approximately 0.7 hectares of the pool site to the education department, to enable the additional services and school enrolment to be accommodated.

The amount of space required still necessitated many of the buildings being two-storey and onsite parking to be limited. As the pool was only open during the summer months, an agreement was also made with council to allow the school to utilise the

pool's dedicated parking for use by staff and visitors to the school throughout the year.

Architectural Strategies

Four key architectural strategies informed the overall masterplan for the college, aligning with the overall vision as articulated by the Colman Foundation and the project board.

One Front Door

Perhaps the most important strategy for Doveton College was the 'one front door' policy. From previous research work done by the Colman Foundation and others, it had become apparent that a major inhibitor to the delivery of quality community services was the need for people to engage with multiple agencies and to repeat personal information many times. The Colman Foundation was determined to overcome this and to ensure that anyone seeking services of any type, from education through to family services, could access these via a single contact point, with the aim of only having to provide their information once. This had a major impact on the planning of the college, with the aim to put as many of the services near the front door as possible, with the aim of 'catching' people as they entered the building.

The main foyer became a critically important space in the design. It was from this space that most of the services were accessed, including childcare, school reception and many of the consultant spaces. Within this space, staff can connect with parents bringing their children to childcare and follow up any previous engagement with the college or engage with them about a known issue. Most of the service providers also had their offices in this area, to make them immediately accessible to the front desk as people came to reception.

This strategy has since been adopted by the other Our Place facilities around the state and continues to prove a successful strategy in a range of different contexts.

Zoning for Child Safety

One of the key outcomes of the community consultation was the community's concern for the safety and security of their children attending the site, particularly on such a small site, and because were other (non-education) services to be provided. Parents were particularly concerned not just about engagement between their children and other members of the community, but also between younger children and

older children attending the school, as the local secondary colleges did not have a particularly good reputation at the time.

For this reason, there was a conscious decision to age zone the site, to ensure that each of the sub-schools had an identifiable area of the site that they could occupy, without fear of engagement with other groups. This was achieved largely through placement of the buildings to form internal courtyards within the site and define these courtyards with several “gateway” spaces that contain shared facilities.

Integration with the Community

Another key strategy in the design was to ensure that the new buildings felt part of the community and not an isolated entity (see Fig. 2). Brand Architects made the conscious decision to minimise the use of fencing on the site and to bring the buildings to the street boundary wherever possible, to provide a more friendly and inclusive address to the school from the street. As most of the surrounding streetscape is single-storey residential properties, the two-storey forms of the school needed to be carefully considered and articulated so as not to dominate the streetscape. Initially there was some resistance from the department to the removal of boundary fencing, as it is department policy to fence all school sites at the boundary. However, feedback from the community indicates that this has been an important aspect in community acceptance of the college, particularly in the early days. Existing mature trees were surveyed and incorporated into the masterplan, with several large eucalyptus being retained and forming focal points within the overall design.

Space Planning

As the more detailed planning of the individual buildings developed, several key strategies emerged to support the college’s vision. As noted earlier, the college’s educational model was established around three sub-schools—0 to Year 2, Year 3 to Year 6, and Year 7 to Year 9.

Demographics for the area predicted that enrolment would be stable across these year groups for some time, particularly with the ELC feeding into the school. This enabled more precise planning of the spaces within each of the sub-schools and allowed Brand Architects to more directly design the spaces for the various age groups and individual educational requirements, with a focus on early intervention in the junior sub-school. This necessitated the provision of additional break-out spaces within the flexible open-plan communities.

The spaces in these buildings included the provision of space for parents to interact and be involved in their children’s education. There was also a strong focus on the connection with outdoor learning spaces and playgrounds for the early years. The middle- and upper-years sub-schools, had a more direct focus on students’

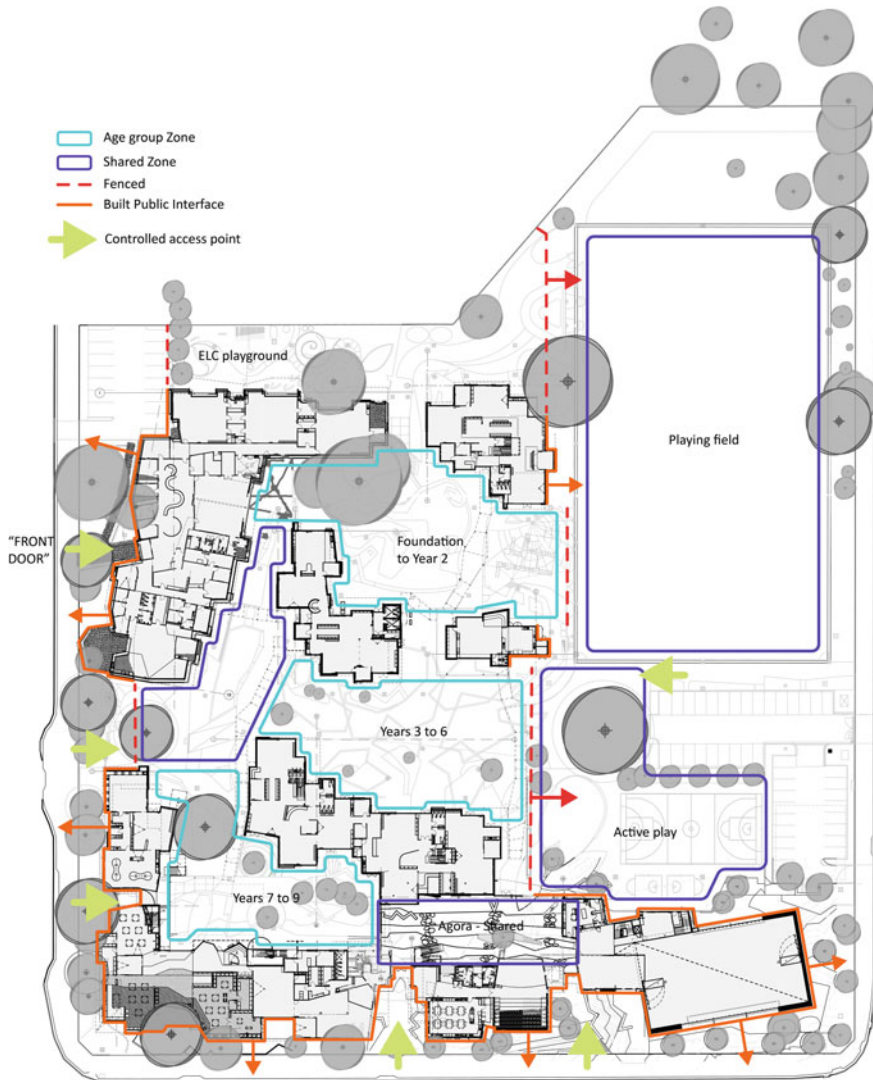


Fig. 2 Site zoning and access (Image by author)

personalised learning journeys. The focus was on different types of learning settings for individual collaborative and larger group activities. While this is commonplace in contemporary designs, at the time it was still new, and the environments were very different to the existing educational facilities that were in the area.

At the 7 to 9 level, particular attention was paid to the opportunities for students' self-expression. This evolved out of work that the Colman Foundation had done and examples overseas including in the Andre Agassi Academy, where it was noted

that student confidence and learning outcomes could be significantly improved by ensuring that students had the opportunities to develop self-expression. Visual and performing arts took on a particular importance within the overall planning of the college.

Once the general educational requirements for the spaces had been established, the possibilities for community use were overlaid on the planning and site arrangement. The project board and the Colman Foundation had a particular desire for the college to operate from 7 a.m. until 10 p.m., with all the facilities being utilised as much as possible. As part of the design process, Brand Architects established a ‘temporal matrix’ to establish potential usage patterns for various facilities across the site, both before, during and after school hours (Fig. 3). Access arrangements were then explored to ensure that community access to the various shared facilities could be maintained while keeping the school secure. This involved placing many of the shared facilities to the edge of the site with access available from both internally within the school and externally from the street (Fig. 4).

Across the site the following key activity areas were planned to enable both school and community use:

Sports The school was provided with a full-size single court sports hall and an additional weights room and gymnasium. The sports hall is utilised for the full time the school is open, either by parent groups, the school, or local sports groups in the afternoons and evenings. The weights room is also utilised outside school hours for parent fitness programs.

Library The school’s library has been located on the south boundary of the site, with both internal and external access. The library houses the school’s resources, but has the capability to host parent literacy programs, as well as computer classes via the adjacent IT lab.

Visual Arts and Technology The school’s visual arts and technology spaces were combined to form a single creative arts precinct, with central design space and several surrounding studios. Opportunities are provided for small group planning and presentations as well as community use for parent classes, men’s shed activities and exhibitions.

Food The school’s food technology kitchen is also located to enable community access. It is co-located with the performing arts spaces to act as a support for community events and after-hours programs. The school’s food kitchen hosts cooking classes for parents, in addition to its educational use. The school also has several community gardens, both on and around the site and places a strong emphasis on food education and its benefits for overall community health.

Performing Arts Music, drama and multi-media are given a very strong emphasis in the educational programs at the school. As a P-9 college, the area entitlement for these activities is relatively minor and the architects argued strongly for additional space to support these programs. As part of the planning a small performing arts studio was developed with an internal 150-seat theatre space. The performing arts space also links with a music studio which has recording and instrumental music capabilities. Both facilities have external access from the street, as well as internal access from the agora space.

	7AM	9AM	11AM	1PM	3PM	5PM	7PM	9PM
ELC	Early Learning Programs							
MP Room	Community Activity Groups							
	Intermittent School Use							
Project House	Breakfast Club	School Activities			Parent Group			
Library		School Activities			Homework Club		Community Access	
Food Tech		School Activities			Cooking Classes			
Design Studios		School Activities			Mens Shed			
Performing Arts	Students Casual Use	School Activities			Students Casual Use	Community Events		
Sports Hall	Students Casual Access	School Activities			Community Use			
Gym	Parent Access	School Activities			Parent Access			
Agora		School Activities			Community Events			
Community Hub / Consulting		Consulting Services						
		Parent Room						

Fig. 3 The temporal matrix (Image by author)

The Agora The agora forms a very important overall gathering space within the school community. It is located to connect to many of the community accessible facilities on the southern end of the site, linking the sports, performing arts and library spaces, as well as having direct access to the canteen. The spaces host whole of school assemblies, graduation ceremonies and community events. The stage to the performing arts centre opens to this space to allow large-scale performance and theatre “in the round”.

The Ceremonial Bridge At the western end of the agora space is a ceremonial bridge. This walkway links the performing arts centre with the 3–6 learning community on the upper level. The bridge is not available for access for most of the year, instead reserved for the crossing of graduating students. Modelled on Agassi Prep in Las Vegas, the intention is that crossing the bridge gives graduating students a sense of achievement and symbolises their continuing educational journey.

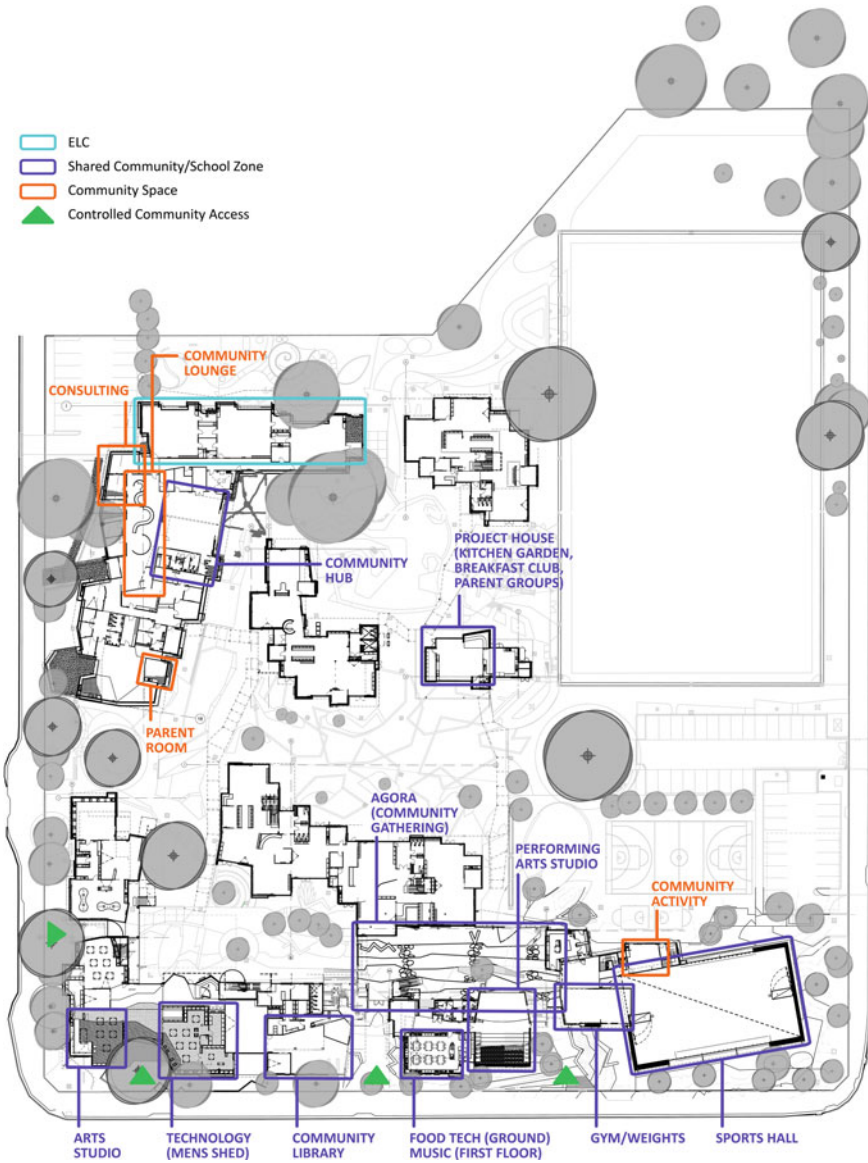


Fig. 4 Community accessible space (Image by author)

The Project House The project house is a small building that sits within the centre of the site. It houses a single large multi-purpose workshop space and a community kitchen. It was originally intended to house the primary art facilities, but over time has developed and now acts as an important space at the centre of the college. It is used for creative activities during school hours, but also houses breakfast club,

community kitchen garden activities, along with several other social and community gatherings. It is well located next to the playing field and is on the edge of the building precinct and accessible from the street without having to go through the remainder of the school.

Lessons Learned

Doveton College has now been operating for ten years and over that time there have been several lessons learnt from the design and operation of the college, some of which have fed into other Our Place projects. There are also many lessons in the design of the college that are applicable to the development of schools as community hubs more generally. This chapter highlights five key lessons.

First, there is a need to align funding sources for programs and overall governance. As noted earlier, it was originally thought that the school would be able to run under one single governance structure, with all funding coming to that body. However, in Australia, funding streams for community services, early education and P-12 schooling are disjointed across Commonwealth, state, and local government levels. Furthermore, most funding has very specific requirements for who can receive it and how it can be used. This complexity precluded the school from making direct applications to run programs. Instead, the partnerships model of the college supported applications for funding of specific programs. As a result, the disjointed funding streams impacted space requirements within the main building and the early years' spaces. For example, the brief for the early years' spaces changed from sessional kindergarten to long day care halfway through construction due to revised funding and educational model.

Second, the transition from early years programs to prep is a critical part of children's development. The school acknowledges that, in hindsight, the licensed early years facility could have benefitted from a stronger physical connection to the P-2 community. The college currently has a standalone prep learning house. However, this may have led to potential issues related to separating a licensed and non-licensed area within the building.

Third, there are advantages in offering continuity of education from early years to year 12. This approach had been the initial aspiration of the Coleman Foundation, with pathways to tertiary education, as per the Agassi Academy model. However, during the early strategic planning process, the department determined that the school should be a P-9 College to align with the overall Building Futures program and other regeneration projects at secondary level in the local area. This has caused difficulties for the college, as some families have been reluctant to send their children to Doveton College from Year 7–9, only to subsequently change to another local secondary college. This has led to a drop off in enrolments at Year 7 at the college, with a consequential mismatch with the use of space from the originally intended design. In future projects, this could possibly be overcome on a larger site or with a campus model. The aspiration to offer a continuous education program from birth to Year

12 holds potential benefits across a range of educational, social and community dimensions.

Fourth, allow time to embed innovative education models and programs across learning communities. The college was the result of a merger of several other under-performing schools that had been teaching in traditional 1950's facilities. As such, students from prep onwards had not been exposed to personalised learning programs or flexible learning community space, leading to some adjustment and social cohesion issues early in the school's life. Julius Colman's original idea have been to start the school with ELC enrolment only, creating a cohort of students prepared for the new program and environment. However, for financial and logistical reasons, this was not possible from the education department's perspective. Importantly, as students have passed through the Doveton model, these issues have settled and resolved.

Finally, a key lesson from the project is not to be too conservative when planning community hubs. The initial reluctance of service providers to come on board with the project fell away quickly once the college started operating and the demand for space has continued to grow. In hindsight, more space should have been provided in the community hub to support the range of programs. The demand on current space has resulted in the college purchasing residential properties around the site, through the Colman Foundation, to enable extension activities to occur.

In planning for community hubs, it is important to think about the potential for expansion and ensure that the chosen site and building design can facilitate future expansion, in a logical way to support the growth of programs.

Conclusion

Overall, Doveton College's first 10 years have been a success for its holistic interlinking of education, community and design. Educational outcomes include a reduction in the number of local children identified as developmentally vulnerable, improved literacy and numeracy measured by school entry testing in children attending Doveton ELC, and improved literacy and numeracy measured in children in Year 3 (Glover, 2020). Community outcomes include stories of family members who have engaged with the school on a broad range of social and educational issues. The college continues to support a wide range of community-based activities, from adult education and vocational skills, through to family and social services. Design outcomes include feedback from the college on the continued relevance of the key design strategies, with at least ten other projects now delivered in Victoria (Our Place, n.d.) and lessons learned being applied in a range of different contexts. Doveton College continues to be a flagship facility and remains the only fully integrated education and community services facility of its type in Australia.

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Vertical Schools as Community Hubs



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Abstract Vertical schools are an emerging form of school design in Australia. Hundreds of vertical schools, usually between four and seventeen stories, will be required in coming decades to respond to increasing student numbers in Australian cities. Locations will be in inner urban areas, where population densities are high and land availability is limited. School facilities for traditional academic programs, plus infrastructure for drama, music, exercise, sport, socialising, craft, play, and food preparation/dining, may all be useful to both students and groups from beyond the immediate school population, aiding the development of school-community connections. This chapter examines Australian vertical schools relative to more established European precedents. It traces community connections that can be discovered from visual analysis of plans and occupied buildings to investigate which spaces have potential for community use. How and why communities use different types of school spaces is explored. Consideration is given to the private, privileged, and public spaces of vertical schools. Questions are asked about whether schools operate as open or closed facilities and about how schools with more porous boundaries address children's safety. The comparison of three Australian vertical schools with seven European examples provides helpful lessons to better understand opportunities for further improvement and innovation.

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Introduction

Vertical schools are now being constructed in most Australian capital cities. Between 400 and 750 new schools are required in Australia to help accommodate an estimated one-million additional school students over the next two decades (Blandy, 2018; Goss, 2016). A vertical school, usually between four and seventeen stories, is designed to cater to the full range of teaching, administration and recreational activities normally associated with a school within one or two buildings. Though commonplace in Europe and Asia, vertical schools are a recent phenomenon in Australia. This school building typology represents a departure from traditional designs that have commonly been built along the horizontal plane. The vertical schools are fundamentally different from ‘silo’ designs, where multiple low-rise buildings are often situated on large sites with plentiful open green space between and commonly linked by covered walkways (Matthews, 2018; Swinburn, 2017).

This new form of public infrastructure is needed in Australia to support rapidly growing urban communities that have emerged since the 1990s as the result of urban consolidation policies (Matthews, 2018; Newton, 2019; Swinburn, 2017). Increasing school-age populations in these urban development zones, high land prices, and a scarcity of suitable sites make vertical schools a necessary alternative to the long-standing cultural preference in Australia for low-rise schools. In 2020, there were 9,542 public and private schools across Australia accommodating nearly 300,000 full-time equivalent teaching staff and just over four million students (ABS, 2020). Meeting the demand for school places in Australian cities through to the end of the 2020s requires the construction of seven new 25-student classrooms every day, on average (Newton, 2019). This demand requires around one billion dollars of additional government expenditure per annum (Goss, 2016).

A recent survey of parents and educators across Australia revealed that school facilities for school-aged students are also widely valued as ‘hubs of community’, providing settings that deliver broad social benefits (Renton & Stobbe, 2020). This chapter focuses on the idea of vertical schools as community hubs and traces community connections that can be discovered from visual analysis of plans and occupied buildings. We analysed building layouts and spaces used by community; the interfaces at the school edges; access and security; sight lines; signage and other traces of occupation; and the discourses by users, school leaders and designers in relation to vertical schools. Recent examples of vertical schools in Australia are compared with northern European examples, where vertical schools have a longer history. Consideration is given to various forms of space and their uses, permeability, safety issues and other factors that influence community use of vertical schools. Inspired by European design, the chapter concludes by identifying opportunities to improve vertical

schools in Australia, especially in ways that can enhance school-community connections and the urban realm. These include blurring boundaries and reducing fences to encourage spatial and social integration, increasing risk tolerance and co-locating more community services like kindergartens within vertical schools.

Background and Context

Urban consolidation is a preferred planning agenda in large Australian cities, designed to densify and enliven urban areas while reducing suburban sprawl (Raynor et al., 2018). Many families are now choosing to remain in urban core areas, slowly reversing a long-standing preference among Australian households with young children for suburban settings. This has fuelled an increase in inner-urban residents, including school-aged children. As one example, enrolments for inner city schools in Sydney have risen by more than 13%—nearly 3.5 times the state average—since 2012 (Swinburn, 2017). Consequently, there is escalating demand for inner-urban school spaces which, along with limited land availability, is leading to the emergence of vertical schools (Truong et al., 2018).

All Australian states except Tasmania are currently developing vertical schools (Newton, 2019). State governments are spending billions on new school infrastructure as part of long-term investment cycles (Goss, 2016). A small number of vertical schools are already built, with many more due to be delivered to address rising enrolment demands in inner city neighbourhoods. The Chief Executive for School Infrastructure NSW stated, “Vertical schools are absolutely a part of the landscape, particularly with increased urbanisation and land availability the way it is” (O’Sullivan & Gorrey, 2021). The Victorian Minister for Education stated in a media release, “We are rolling out eight vertical government schools to make sure there are enough school places for young Victorians across the inner city” (Premier of Victoria, 2021).

Australian vertical schools can be divided typologically into mid-rise and high-rise. Most are mid-rise, between four and seven storeys. Taller schools of up to seventeen storeys are being developed in New South Wales, Victoria, and Western Australia (Newton, 2019). Vertical schools and their campuses will become learning hubs for expanding student cohorts, as well as providing social infrastructure for inner-urban communities into the future. These new pieces of urban infrastructure are connected in complex ways to their surrounding built, natural and material environments (Botsoglou et al., 2019; McLeod, 2014a).

School campuses and buildings are traditionally seen as central features of neighbourhoods. They are embedded in locality and community and have potential to become iconic placeholders of civic values and traditions over time (McLeod, 2014b). This means that schools are not just learning spaces; they are important forms of social infrastructure that are connected in complex ways to their adjacent built, natural and material environments (Botsoglou et al., 2019; McLeod, 2014b). The architecture and spatial arrangements of schools intersect with education ideas and

practices, as well as the community and the citizen (McLeod, 2014b). Innovations in school design therefore reflect changing forms of social engagement with communities, as well as shifting approaches to education and learning (McLeod, 2014a, 2014b). Within this context, educators, architects and planners are key protagonists in creating positive connections between space and pedagogy (Goad, 2014). There is a need for ongoing stakeholder dialogue to create schools that function well as learning environments and as social infrastructure (Halarewicz, 2017). Educators, design professionals, urban planners, policymakers, and parents should ideally collaborate to co-design vertical schools to maximise educational and community benefits (Halarewicz, 2017).

Past innovations in Australian school design included two major periods of reform. The first was in the 1930s, under the banner of “the project of modernity” (Dale, 1992, p. 203). Best practice established at the time and carried forward took the view that “the 2015 ideals, both pedagogical and aesthetic, of a generation of educators and architects were held in common” (Goad, 2014, p. 191). This was the beginning of the recognition that cooperation between educators, architects and planners is necessary to ensure positive connections between space and pedagogy (Healy & Darian-Smith, 2015; Kinchin & O’Connor, 2012). A second period of reform occurred in the 1970s. This advanced the ideals developed in the 1930s, but added a call for “collective biography, of progressivism in education” (Goad, 2014, p. 191). This meant that efforts to create openness between educators and designers can provide educational spaces, while also creating places that enrich broader communities (Goad, 2014; Healy & Darian-Smith, 2015).

The reforms of the 1970s also increased interest and exploration of the ‘community’—something that is both within and around schools. Community in this sense involves parents and the general population, since both groups also interact with school buildings and campuses (Goad, 2014; Healy & Darian-Smith, 2015). However, practical engagement with local communities was not well articulated during this period. Applying these lessons to vertical schools, as a third significant period of reform in Australian school planning and design, highlights the importance of collaborative dialogue between stakeholders to ensure learning spaces and social infrastructure can be enjoyed by diffuse groups.

Analysis

Various themes emerged as we contrasted recent Australian vertical school designs with European examples. We found similarities in the types of facilities shared between schools and communities. In analysing plans and spaces, we considered the affordances brought by facilities located near entry points and the links between design intentions and usage. We found distinctive issues related to the design of entry experiences, as well as boundary conditions. We noted different arrangements for outdoor spaces and different attitudes to community and risk. These themes are often interconnected. For example, attitudes to risk aversion

impact the entry arrangement and whether there are supervised gateways between spaces for the community and spaces for students.

Facilities Shared Between Communities and Schools

Australian vertical schools (Table 1), like their European counterparts, benefit by proximity to community facilities. St Andrew's Cathedral School in Sydney, built in 1976, is Australia's oldest vertical school. Students occupy the top three levels of the eight-storey brutalist office building in central Sydney. They use the adjacent cathedral as an auditorium, the city library and museum for learning, and the playing fields at the University of Sydney (Curnow & Lambert, 2015). The university makes use of St Andrew's classrooms after hours in a reciprocal arrangement.

Haileybury City Campus is Melbourne's first private (independent fee-paying) vertical school. Rather than being built from scratch, Haileybury is in a retrofitted, 30-year-old office building. Its development in 2017 was undertaken in response to the rapidly expanding city residential population revealed by the 2011 census. Haileybury, like St Andrew's, benefits from its central city location for cultural, educational, sporting and recreational facilities.

Botanic High School (Fig. 1) is Adelaide's first vertical school, with two adjacent buildings on site. It incorporates six learning levels in a repurposed university building and seven levels within a new building. Botanic High also makes use of adjacent city facilities for teaching and learning, particularly the nearby botanic gardens, parklands, University of Adelaide, and extensive arts precinct. Of the Australian vertical schools, Botanic High is most like the European precedents in terms of how outdoor spaces are freely available for use by the broader community outside school hours. The school-to-community boundaries are porous and only semi-defined by height-level changes, with robust outdoor tables and chairs accessible at all hours.

The four-level Fisherman's Bend Secondary School (VSBA, 2021) is part of Australia's largest urban renewal precinct. It has four distinct quadrants at ground level linked to community—gymnasium, performing arts, learning resource centre and food technology. All are designed to be shared with community after hours. Similarly, North Melbourne Hill Primary School will share its large, universally accessible playground with the community after hours and welcome community groups to use its gymnasium, library and performing arts spaces (ArchitectureAU, 2021).

Fortitude Valley State Secondary College, on the fringe of Brisbane's CBD and in a rapidly changing inner-city suburb, is the first school built in the centre of the Queensland Capital in 50 years. The eight-level building, on the ground of the former Fortitude Valley State School, is walking distance from one of Brisbane's main railway stations. It is near expanding local communities in Fortitude Valley, Bowen Hills and Spring Hill. Heritage listed buildings from the former state school have been incorporated into the site's masterplan to retain identifiable connections to the historic school that first occupied the site. The design aims to become a new prototype in terms of learning spaces. It combines traditional classrooms with informal

Table 1 Vertical Schools in Australia

School name	State	Location	Years	Date	Peak Enrol	Floor Levels
St Andrew's Cathedral Sc ¹	NSW	Sydney CBD	K-12	1976	1100	Top 3 of 8
Arthur Philip HS ²	NSW	Parramatta	7-12	2020	2000	17
Parramatta Public ²	NSW	Parramatta	F-6	2020	1000	4
Inner Sydney HS ³	NSW	Surry Hills	7-12	2020	1200	11
Santa Sofia Catholic College ⁴	NSW	Box Hill	K-12	2021	1860	6
Fortitude Valley State SC ⁵	QLD	Fortitude Valley	7-12	2020	1500	7
Brisbane South SC ⁴	QLD	South Brisbane	7-12	2021	1650	7
Adelaide Botanic HS ⁶	SA	Adelaide CBD	7-12	2019	1250	7
Haileybury City Campus ⁷	VIC	Melbourne CBD	EL-12	2017	800	10
South Melbourne PS ⁸	VIC	South Melbourne	F-6	2018	525	6
Richmond HS ⁸	VIC	Richmond	7-12	2019	650	4
Prahran HS ⁹	VIC	Prahran	7-12	2019	650	5
Fisherman's Bend SS ¹⁰	VIC	Port Melbourne	7-12	2022	1100	4
North Melbourne Hill PS ¹¹	VIC	North Melbourne	K-6	2023	525	6
Fitzroy Gasworks ¹²	VIC	Fitzroy	11-12	2022	650	6
McKinnon Secondary C ¹³	VIC	McKinnon	7-12	2022	1100	4
St Georges Anglican GS ¹⁴	WA	Perth CBD	7-12	2015	290	6

¹ Noel Bell and Herbert F Hely² Grimshaw Architects with BVN³ FJMT Architects⁴ BVN Architects⁵ Cox Architecture with Thomson Adsett⁶ Cox Architecture with Design Inc⁷ Darren Carnell Architects⁸ Hayball Architects⁹ Gy Puksand¹⁰ Billard Leece Partnership¹¹ ARM Architects¹² GHD Woodhead and Grimshaw¹³ K2LD¹⁴ DWA Architects



Fig. 1 Outdoor spaces, Adelaide Botanic High School (Image from Cox Architecture)

spaces and make the most of the subtropical climate of Brisbane, integrating plazas and balconies that perform as an array of diverse open spaces to support flexible learning and other activities.

Richmond High School, in the inner urban ring of Melbourne, has outdoor spaces that, while fenced, are kept open after hours and on weekends for use by the community. Outdoor spaces with playground equipment are particularly valuable in inner city areas as more families occupy apartments with limited outdoor areas.

Community and School Co-use of Indoor Spaces

The broader community of Richmond also benefits from after-hours access to Richmond High School. Interstitial spaces are used by multiple groups near the entry areas, including spaces for drama and music. This deliberately breaks up any hard lines separating school-use and community-use. The school is located near community sports facilities, including a pool and netball courts. The school gymnasium offers extending the opening hours to ensure use by both the school and the local community groups, supporting more efficient infrastructure use.

The six-level South Melbourne Primary School, also located in an inner-urban area, was conceptualised in the context of the new and dense Docklands urban community. The design brief envisaged school spaces to support residents living in nearby apartments. A priority was to accommodate after-hours use of facilities, such as makerspaces and meeting rooms, as well as access to music, drama and sports areas. Prahran High School, another vertical school in Melbourne, has a rooftop gymnasium, garden and running track that are likewise offered for after-hours use by community.

The Symbolic and Functional Importance of Central Atria

The Victorian and South Australian vertical schools are designed around central atria. These are intended to form a visual heart and gathering space for each school, while connecting the vertical levels and making learning spaces more visible. This is in contrast with traditional classrooms off corridors. Rather than just connecting levels with staircases, seating is provided as an integrated component of stair design. These have become known as Hellerup stairs after their early integration at Hellerup School in Copenhagen by Arkitema Architects (Fig. 2).

For example, South Melbourne Primary School uses a central stair as a theatre space. At Prahran High School, students use the central stair for presentations, informal gatherings and general study (Fig. 3). Richmond High School has a smaller Hellerup-model stairway located just inside the entry. Students enter the school through the atrium each day and are welcomed by the principal. With seating on the stairs to the side and a canteen nearby, this entry sequence is like many of the northern European examples where the boundaries between public and private are blurred.

Fig. 2 Hellerup School, Copenhagen (Image by author)





Fig. 3 Prahran High School (Architecture by Gray Puksand. Image by Peter Clarke Photography)

Blurred Boundaries Versus Gated Communities

The three Copenhagen schools we studied—Ørestad Gymnasium, Hellerup School and Sydhavnen School—each have entry sequences from surrounding neighbourhoods, rather than controlled access gateways with reception desks in public foyers. Visitors enter Hellerup School through a recreation room to reach the central stairway. By contrast, Ørestad Gymnasium, by 3XN Architects, has a traditional formal entry mid-way along its rectilinear and colourful façade. Entering the school, visitors walk into an atrium where boomerang shaped floor platforms hold circular learning pods, often cantilevered into the atrium.

At the Sydhavnen School administration staff can view the entry from an upper level rather than in a control desk area near the entry. Visitors arrive into a double



Fig. 4 Outdoor spaces, Sydhavnen Skolen, Copenhagen (Image by author)

height space with student artwork and a mix of informal furniture. There is a view through the dining area to the outdoor spaces. The local authority takes responsibility for maintenance of the school's outdoor spaces, including the school roof, which is constructed as an outdoor landscape of timber steps, accessible to the community (Fig. 4).

On entering each of these Danish vertical schools, visitors move from a *public* space to a *privileged* or *invited* space before reaching the more *private* learning spaces within the school. Conversely, visitors entering vertical schools in Australia are generally overtly controlled with reception areas acting as gateways between a public foyer and the school beyond. Richmond High School is an exception to this trend. New vertical schools developed for the Victorian School Building Authority often have separate waiting areas for the public and students. Public access to the northern European schools often appears to be less clearly defined by the architecture. For example, The Swedish school of Herrestaskolan by Liljewall Architects uses signage instead of a reception desk to orient visitors (Fig. 5).

Perceived and Real Risks

A topic of significant practical concern is how community attitudes towards risk influence the indoor and outdoor design of vertical schools. Considerations of student safety are approached in a direct way at the Sydhavnen School. There, the playground is adjacent to a canal, but the school community chose to keep the canal unfenced with the rationale that children needed to learn to be safe near bodies of water. The



Fig. 5 Entry sequence with signage, Herrestaskolan, Sweden (Image by author)

roofscape can be played upon as a large stair with few handrails (Fig. 4). Australia is generally more risk averse, so a similar play area or unfenced water access might be perceived as unsafe. The Fortitude Valley State Secondary College has a fully fenced ground; the green and recreational area is designed between the new building and the railway station, to shelter the students from any external interference.

Urban Presence

Unlike St Andrew's, Botanic High and Haileybury College in Australia, the European schools we studied tend to be further from the city centres in areas, though are still in areas with extensive apartment living. Direct sightlines from public paths into internal learning spaces are not unusual in the European schools. The Finnish Saunalahti School general learning spaces and the Herrestaskolan gymnasium both have windows that look on to adjacent public paths. Figure 6 shows views from Sydhavnen School to the public street. Vertical schools in Europe are often built to the external boundary adjacent to roads and footpaths. Such practice is uncommon in Australia, where efforts to avoid members of the public viewing areas occupied by children is often a design intent. A common approach is to ensure learning spaces are distanced from public areas or separating with the use of a corridor. Botanic High is an exception with adjacent outdoor areas at ground level directly accessible by the public. Rather than using fences to define a school zone apart from adjacent parks and gardens, Botanic High is directly positioned within the public gardens. This brings of the multiple benefits of students accessing generous public gardens;



Fig. 6 School boundaries, Sydhavnen Skolen, Copenhagen (Image by author)

the community accessing the outdoor decks and tables provided by the school; and bringing the public closer to the school for invited activities and events.

Co-located Community Functions

We have not yet visited many Australian or northern European examples of co-located community facilities such as community centres and kindergartens in vertical schools. However, co-located community facilities do exist in some Australian vertical schools. Both South Melbourne PS and North Melbourne Hill PS have kindergartens on the top level. This allows the schools to function primarily as education facilities, while simultaneously adding more child-care options for local communities. Co-locating kindergartens with primary schools can reduce traffic, increase community footfall and allow children to enjoy longer associations with their local school. Arthur Philip High School in NSW has provided flexibility for future community uses but these have yet to be fully activated.

Fiep Westerdorp (Fig. 7) in Amsterdam is a European exception, as it co-locates a school, nursing home and apartment complex around a shared playground. While visiting this school we spoke with a waiting parent who explained the convenience of living in an adjacent apartment as he used a wheelchair. Mixing generations is sometimes regarded as having mutual benefits (Warner et al., 2010). Anecdotally, teachers we spoke to at Fiep Westerdorp and residents in the adjacent nursing home did not



Fig. 7 Mixed uses of Fiep Westerdorp, Copenhagen (Image by author)

see the relationship between the school and the nursing home as being synergistic. Further research is needed to better understand why users perceive this disconnect.

Calvijn College (Fig. 8) in Amsterdam, by Wiersema Architects, has a program entitled NEXT, where students connect with local communities in a range of ways including preparing and serving meals for older local residents as part of an internship. School kitchens are used for events. A sports program and training in hairdressing and beauty are interconnected to community, with a range of partner organisations contributing in turn to the student education.

Conclusion

Vertical schools are becoming more prevalent in Australian cities and will continue to be built in numbers, at least in the medium term. Urban consolidation policies, leading to larger inner urban communities, combined with demographic changes and rapidly rising student numbers, ensure this trajectory. Vertical school development may be the third period of reform in Australian school planning and design. It is both justified and reasonable to state that vertical schools represent the most pressing infrastructural imperative in Australia cities in the coming years.

This chapter traced community connections from visual analysis of plans and occupied vertical school buildings and campuses in Australia and Europe. It offered insights into commonalities and divergences across a variety of domains, including space design and use, urban presence, permeability, safety and the potential for co-locating other activities and services within or adjacent to vertical school campuses.



Fig. 8 Shared spaces for young and old at Calvin College (Image by author)

The early Australian vertical schools are performing well overall. Their planning and design processes were generally well informed by collaborative dialogue between stakeholders and with local communities. Still, there are important lessons from northern Europe, where vertical schools have a longer history. European lessons relevant to Australia include the intentional blurring of boundaries and exclusion of fences to encourage spatial and social integration. Risk tolerance and attitudes towards risk as a teaching tool is more common in European examples, which increases student alertness while reducing hard boundaries. Co-locating community services like kindergartens within vertical schools has a longer history in European examples.

Lessons on good practice from overseas are a helpful first step but deeper, mixed-method research is needed to fully explore the complexities of how vertical schools can best operate as community hubs in the Australian context. Vertical schools and their campuses can be innovative and functional learning and community spaces if designed correctly. Hopefully Australian governments will support this view and work to create desirable, immersive and practical spaces. To support this, the next phase of research requires location and context-specific investigations of vertical school development in Australia. Inter-disciplinary research, involving educational space designers, teachers, urban planners, architects and education scholars, will help maximise community and learning outcomes from vertical schools as they become common and central forms of social infrastructure in twenty-first century Australian cities.

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Developing a School and Community Learning Hub: A Case Study from Regional Australia



David Tordoff and Julia Atkin

Abstract This chapter chronicles a merging of previously separate community, school, cultural, wellbeing, and tertiary facilities within a new hub in the regional centre of Young, New South Wales (NSW), Australia. It describes the collaboration required between state and local government, architects, educators and community representatives from the conception of the facility within the community, to engaging with multiple stakeholders and policies and the architectural response to a complex brief on a fortuitous multilayered historical site within a diverse cultural context. Australia wide, governments are searching for more effective and efficient use of public infrastructure. In NSW schools have long been encouraged to make their facilities available for community use and consequently ‘shared’ use of school owned facilities is relatively common. It is only recently that ‘joint use’ projects have been promoted in NSW. ‘Joint use’ involves significant capital investments of land and/or facilities by two or more parties. ‘Joint use’ projects have the potential to open myriad learning opportunities for a community. In Young, the concurrent need to upgrade and extend the community library facilities and the community’s high school facilities provided an opportunity to develop a ‘joint use’ community hub not only to service the town but for *‘supporting whole of life learning for Hilltops’*—the local government area. With new opportunities inevitably come challenges. The chapter discusses challenges around the governance and management that joint use projects present and how this community is designing its way forward.

Keywords Joint use · Shared use library · Community hub · School and community partnerships · Regional school hub · Designing with country

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Introduction

For communities, the information and resources their public libraries contain, the events they host, and the spaces for hire are intrinsically tied to the culture of the local community. In secondary schools, contemporary libraries are at the heart of learning. They are places where students inevitably gravitate to as a space for quiet study, collaborative project work, social interaction, meetings, and events. In regional towns the importance of both types of libraries are magnified. These library aspirations both complement and compete, while opening opportunities for use of a wide variety of school learning facilities by the community and re-integrating school with the broader community.

Defining Terms

The terms ‘community hub’, ‘shared use’, and ‘joint use’ conjure various meanings for different people. For the term ‘community hub’, Clandfield (2010) proposes a ‘five-point continuum extending from the community use of schools to the fully integrated school-community relationship’ to describe various types of community use of school facilities. For the first four points on Clandfield’s continuum—community use of schools, parallel use and shared use of schools, co-location of community services and full-service schools, Clandfield notes “there is nothing that by necessity integrates the life of the school with the community uses of the school” (Clandfield, 2010, p. 19). For the fifth point on his continuum, the school as a community hub, Clandfield proposes that the school be thought of as ‘a two-way hub when children’s learning activities within the school contribute to community development, and when community activities contribute to and enrich children’s learning within the school.’

NSW Department of Education (NSW DoE) has long encouraged schools to engage in ‘shared use’, or ‘community use of school facilities ... [whereby] schools are encouraged to make their facilities available for use by the community’ (NSW Department of Education, 2020a, 2020b, 2020c). The shared use that is common in NSW falls largely into the first two points on Clandfield’s continuum—community use of schools and parallel and shared use of schools. In a shared use arrangement, a school controls a facility on its grounds but allows related community use during out-of-school hours. On the other hand, school use of community facilities in a ‘shared use’ sense is a given. Schools, as part of the community, use local council-controlled facilities such as parks, sports grounds and public swimming pools.

Although shared use of school and community sports facilities and halls is relatively common in NSW and in many cases leads to more effective use of these aspects of a school’s infrastructure, a report on sharing school and community facilities by the NSW Auditor General’s Office (2017) concluded:

The sharing of school facilities with the community is not fully effective. The Department of Education is implementing strategies to increase shared and joint use but several barriers, some outside the Department's direct control, must be addressed to fully realise benefits to students and the community of sharing school facilities. In addition, the Department needs to do more to encourage individual schools to share facilities with the community.

A collaborative, multi-agency approach is needed to overcome barriers to the joint use of facilities, otherwise, the Department may need significantly more funds than planned to deliver sufficient fit-for-purpose school facilities where and when needed (NSW Auditor General's Report, 2017, p. 1).

In its School Assets Strategic Plan, School Infrastructure NSW (SINSW: NSWDoE2017) stated its intention to develop stronger partnerships and increased joint and shared use of school facilities. 'Joint use' in NSW is defined as a school sharing and funding facilities with a community partner, such as managing a sports ground with a local council. SINSW defines 'joint use' as:

... where the **department and other parties make significant investments (land and/or capital)** in new facilities, upgrading facilities or maintaining facilities. The asset is typically shared between the school and the other parties over an extended period of time, or the lifetime of the asset. These projects are voluntary and **intended to be of mutual benefit to all parties** [emphases added]. (NSW Department of Education, Policy Library, 2020b, 2020c)¹

In line with its intention to develop stronger partnerships, and joint use facilities SINSW, NSW DoE (2018) has also promoted the notion of Schools as Community Hubs and identified four fundamental principles underpinning Schools as Community Hubs:

- Developing more socially cohesive societies
- Re-connecting learning with life and enabling learning anywhere, anytime with anyone
- The sensible, collaborative use of assets through joint use developments and partnerships
- Increasing socio-economic benefit/value-add (SINSW, 2018).

In signalling these principles, which go beyond simply economic benefits, the joint use facilities and community hubs as proposed by NSW DoE, SINSW create the opportunity for NSW state schools to develop as real two-way community hubs, with a fully integrated school-community relationship as per Clandfield's (2010) continuum. In the case of existing schools, whether these benefits can be realised will depend on the need for school refurbishment in addition to the community's needs.

In rural and regional areas, there is a strongly held belief that schools are 'central to being a community' (Halsey, 2018). This belief is rarely imagined as a fully

¹ The genesis of the Young High School-Hilltops Council joint use community library began in 2017. References to NSW DoE policies and procedures refer to the policies available at that time. Since then, NSW DoE has developed a more recent strategic plan and continued to refine policies and processes regarding sharing of school facilities. Updated references are included in the reference list at the end of this chapter.

integrated school-community relationship. However, the belief does provide fertile ground to develop a true two-way community hub as will be seen in the case of Young High School (YHS) and the Hilltops community in the regional centre of Young, New South Wales (NSW) in Australia.

Vision and Guiding Parameters

Establishing alignment between all parties regarding both the vision and the operational requirements is the greatest challenge in developing and implementing a joint use project. Without alignment to a shared vision a joint use project will not be sustainable. Fundamental steps in this project were establishing the shared vision and commitment to this vision, deriving the guiding design principles and understanding and integrating the various sets of policies, regulations and requirements of different government departments.

Opportunities, Synergies and Vision

The vision for the project, ‘Supporting Whole of Life Learning for Hilltops’ grew out of synergy between a number of YHS initiatives and needs identified by Hilltops Council and community members. Young Shire Council Cultural Infrastructure Masterplan (Young Shire Council, 2014) identified the following needs:

- A new community library
- A cultural precinct
- Facilities for the arts community / arts space(s).

In addition, the newly formed Hilltops Council wished to augment existing education provision and provide new opportunities and networked spaces for learning, including facilities for remote university learning. With the announcement of a new library for YHS, the school saw the opportunity to support key initiatives and infrastructure needs by integrating learning facilities with the new library:

- Youth health and wellbeing hub
- Wiradjuri learning and cultural centre
- Multimedia and project-based learning spaces (Hayball, consultation notes YHS, 2018).

From the outset, Young High School and Hilltops Council Community Library was born out of these shared community needs and conceived by all as a joint use facility for mutual benefit. In determining mutual benefits, the team considered what would be a ‘win-win’ for all community groups i.e., what are the things that this community does not have, that the school might provide, and what are the things that this school does not have, that the community might provide.

Design Guidelines and Principles

The design was guided by a synthesis of the following principles and guidelines:

- Education Facilities Standards Guidelines (EFSG), General Education Principles (NSW Department of Education, Education Facilities Standards and Guidelines, 2020a)
- State Library: People Places (State Library NSW, 2020)
- Universal Design Principles (Centre for Excellence in Universal Design, 2020)
- The UN Sustainable Development Goals (United Nations, 2020).

Project-specific design principles were developed with SINSW, YHS, Hilltops Council, and the project reference group to address whole-of-life learning: building community, celebrating the arts and the community's multicultural nature, providing contemporary learning environments, respecting heritage, ensuring economically sustainable development, and embedding universal design principles.

Realising the Vision

Synergies between SINSW's principles underpinning community hubs and the business case for the project (commissioned by Hilltops Council) demonstrated a positive benefit to cost ratio for creating a joint use library and community learning facility. How the four key principles were given effect is described below.

Seamless Access to a Range of Resources and Learning Spaces

A schema for the joint use of library and learning spaces was developed in response to stakeholder engagement and project reference group scrutiny (Fig. 1).

Maximising Mutual Benefit, Minimising Space and Budget

By sharing areas, establishing a joint collection, and developing a booking system for a variety of integrated facilities, the area schedule for the joint use facility demonstrated the efficiencies gained by joint use, with the total area being reduced from the area required for separate facilities.

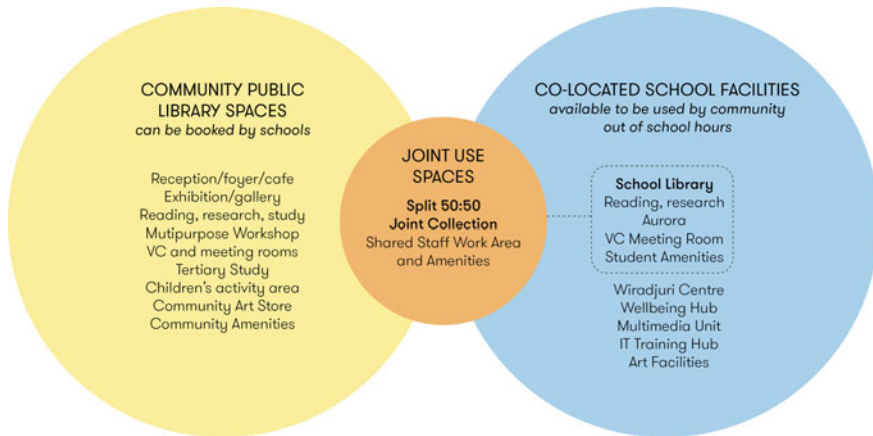


Fig. 1 Integration of functional spaces including a joint collection and shared staff work area (Image by Hayball)

Building Community and Identity

To build community and identity and create a culture that reflects and respects diversity within the Hilltops' community, an extensive series of stakeholder workshops were conducted. Further, architect Michael Mossman was engaged to assist the team to develop a design that responded to the cultural values and narratives of place. This process, involving consultations with local elders and visits to other cultural centres, led to a series of themes that resonate through the design. Heritage consultants GML Heritage were engaged to better understand how the heritage significance of the site could contribute to the development proposal.

Connection to the Land, the Place, the History, and the People

Understanding the rich cultural history of the land on which the facility is located, Wiradjuri country, was central to creating a joint use facility that realised the guiding design principles. In the 1860s the site and surrounds were the locations for the Lambing Flat Riots. False rumours that Chinese workers were planning to take local goldfields for themselves led to a series of riots on the site including the burning down of the original courthouse. A new gaol was built in 1876 on land adjacent to the current YHS site and a Grand Courthouse on the site of the current school in 1884. Immediately to the north of the current site is an open civic area called Carrington Park that used to be separated from the school site by Currawong Street. However, this street was removed, resulting in the Grand Courthouse and the old gaol having an unusual direct frontage to Carrington Park (Fig. 2).

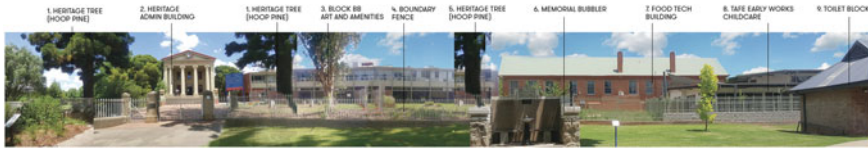


Fig. 2 Significant existing site features (Image by Hayball)

The preferred development site was selected based on its capacity to provide direct community access to and from the adjoining park and because it would help reinstate visual and physical connection to the Grand Courthouse. The existing arts and amenities block, constructed in 1963 and located on part of the preferred development site, was considered intrusive from a heritage perspective. Synergistically, redevelopment of the school visual arts facilities within the new Library and Community Learning Facility added significant benefit to the community arts groups who were seeking facilities and enabled the integration of sorely needed school multi-media facilities into the complex.

Two complimentary narratives were developed to respond to the cultural aspiration of stakeholders and the historical context of the site. Historical mappings were overlaid with cultural considerations to create a response to both European and Aboriginal heritage which was based on interpretation, dialogue and activation.

Wiradjuri Architectural Narrative and Response

Design responses that were adopted in response to consultation with the Wiradjuri community included:

- *Yindyamarra*—a Wiradjuri word - respect for everything, expressed by giving honour, going slowly, and taking responsibility
- *Ngumbaay-dyil* (all are one)—reconciliation and inclusion
- *A narrative connected by interstitial spaces*—spaces for gathering, movement
- *Exchange* between the Wiradjuri and European
- *Language*—wayfinding and building naming in Wiradjuri language
- *Cultural artefacts* referenced through façade material and detailing.
- *Fire*—spaces for coming together, storytelling and colours and materials to symbolise the significance of fire.

Consultation with stakeholders identified that places of significance within Aboriginal culture are not defined by linear elements, rather they are defined by and between a collection of nonlinear forms such as streams, mountains, rocks, vegetation, fire, the land and the sky. Stakeholders identified that the traditional approach to these places and circulation within them was non-linear.

In consultation with stakeholders, a non-linear meandering path was created through the facility to emphasise and celebrate the layers of Wiradjuri history and

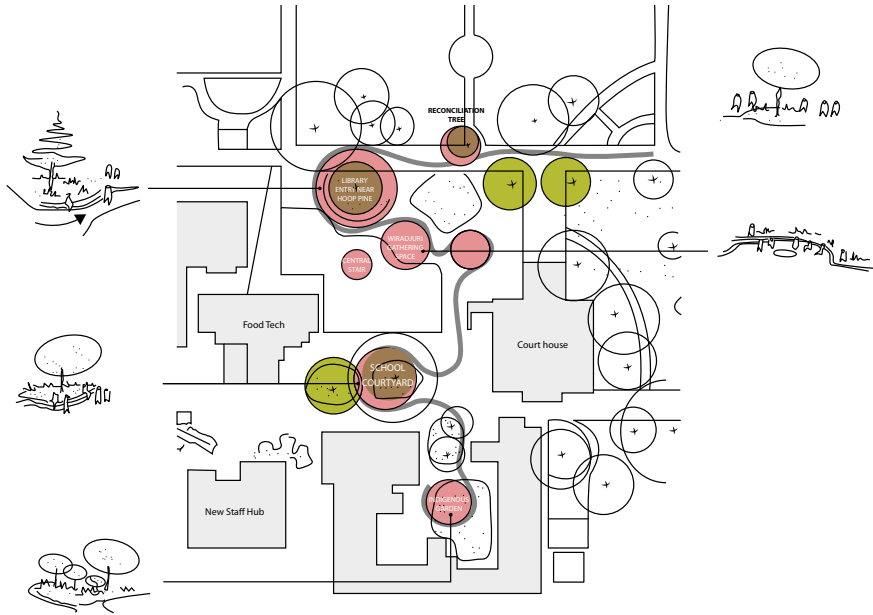


Fig. 3 Non-linear meandering path linking interstitial spaces for exchange, reconciliation and gathering (Image by Hayball)

culture connected to this site (see Fig. 3). The forms of the facility and surrounding landscape elements are intentionally nonlinear and define a series of indoor and outdoor interstitial spaces for exchange, reconciliation and gathering. These interstitial spaces are places to emphasise *Ngumbaay-dyil* (meaning ‘all are one’ and ‘all together are one’) as a symbol of hope for the future. The meandering path links these interstitial spaces enabling continuing dialogue between Wiradjuri and European cultural heritage. This meandering path welcomes a visitor at the entrance to Carrington Park and leads through multiple stops to tell a story of past and present from the reconciliation tree, past the Wiradjuri Centre, the Grand Court House, leading ultimately to new spaces in the school courtyard and Indigenous Garden. Archaeological findings uncovered on the site will be located along the meandering path, providing opportunities for interpretation and learning.

European Architectural Narrative and Response

The massing, forms and detailing of the facility were determined through consultation with stakeholder groups and derived because of:

- The bulk and scale of the courthouse
- The historic setbacks and subdivision patterns of the site

- Sightlines to the courthouse
- The height of courthouse facade elements.

Key outcomes from the heritage investigation were adopted in the design:

- Currawong Walk (historically Currawong Street) was re-established as a means of community access to the facility via Carrington Park.
- Layered historic and cultural landscape of the site, with consideration to character, scale, proportion, form, materials, and colour, were interpreted throughout the design of the facility.
- The heights of the various stepping forms of the facility were derived from the horizontal and vertical datums and forms of the former courthouse (administration building) particularly when viewed from in front of the former gaol.
- When viewed from the north-east, the facility appears more horizontal and sinuous, responding to the cultural spaces within the landscape and referencing a more organic stratification of land formation (Fig. 4).
- When viewed from the north-west in front of the former gaol, the facility can be seen to respond to the scale, form and vertical proportion of the courthouse (Fig. 5).
- Views from the gaol within the park towards the former courthouse are enhanced by the new curtilage (Fig. 6).

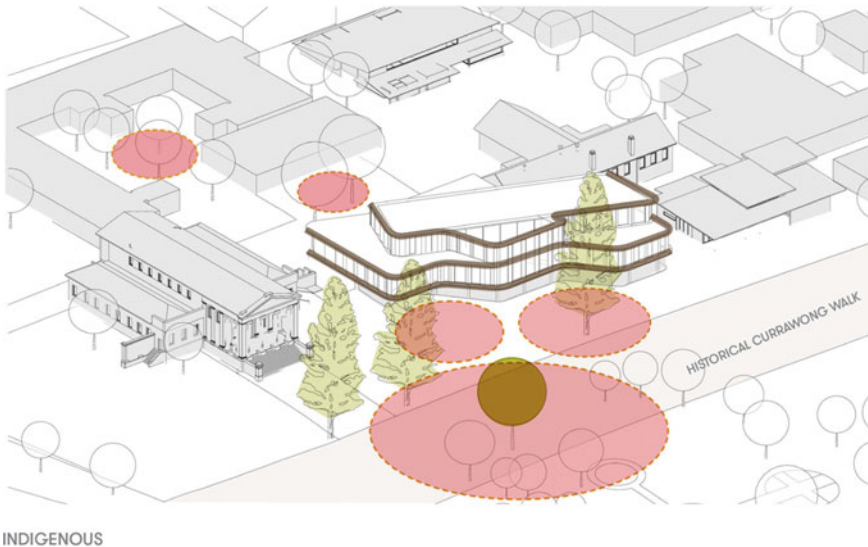
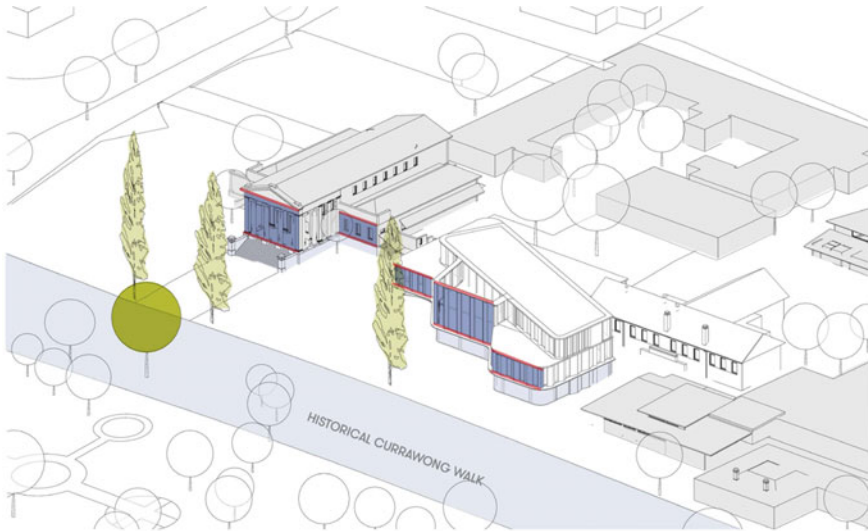


Fig. 4 Sinuous forms create gathering spaces and protection zones



EUROPEAN

Fig. 5 Response to the European curtilage (Images by Hayball)



Fig. 6 Photomontage view from the north-west (Image by Hayball)

Functional Organisation

There were significant challenges to be met in designing an integrated facility that simultaneously meets the needs of the school and the community, especially in terms of access, security, duty of care, and creating a seamless flow between related functional areas. After much consultation, the floor plan emerged. Access is provided for community use of the joint use facilities out of school hours while maintaining the school’s duty of care requirements through the careful zoning of community spaces, joint use spaces, school spaces, stairs, and lifts along with the strategic placement of operable walls. The design enables concurrent use by various community groups for maximum school and community benefit.

The lower ground floor provides community access from Carrington Park and the reinstated Currawong Walk. This floor is carefully zoned, with separate community and school access and egress. Operable doors and walls delineate community and school use during school hours (see Figs. 7 and 8).

The upper ground floor provides access via a community stair or lift to the west, a shared staircase or directly from the main school quadrangle to the south ensuring the library assumes prominence as being central to the school’s learning spaces. This floor houses the joint use staff space, tertiary study space and a combination of school spaces for wellbeing, meetings, virtual learning, and general school library spaces.

Level 1 can be accessed either via the community stair or lift to the west, or the school stair to the east. This floor accommodates school art and computer facilities, with the inclusion of a community art storage space to support community use of the art facilities.



Fig. 7 Lower ground floor and inspiration images (Image by Hayball)



Fig. 8 Impression of the community entry through to the joint collection (Image by Hayball)

All floors contain a range of bespoke social, gathering, professional, cultural, and learning settings that respond to the various stakeholder needs and support whole of life learning. The zoning of the facility works in combination with a clear definition of vertical circulation paths and a series of movable walls. These adaptable modes ensure that the facility can be used throughout the day for maximum school and community benefit, providing for community integration when desired whilst still meeting duty of care obligations. Internally the facility allows for lines of demarcation between the school and community to be adapted throughout the day.

The orange ‘shared’ zone includes the main collection, staff, administration, and shared circulation (see Fig. 9). The yellow ‘community’ zone is designated for community use and enables activities such as reading, gathering, workshopping, exhibition, and storage. School users also use these community zones with supervision. The blue ‘school’ zone is designated for school use during school hours. Community members can book these zones for use outside school hours.

Each zone is provided with separate vertical circulation. School users can pass independently through the floors within the blue school zone, and community users can access each floor after hours without needing to circulate through the school or shared zone. Figure 9 uses red and blue dashed lines to indicate a series of sliding and operable walls, allowing further division of the space if required.

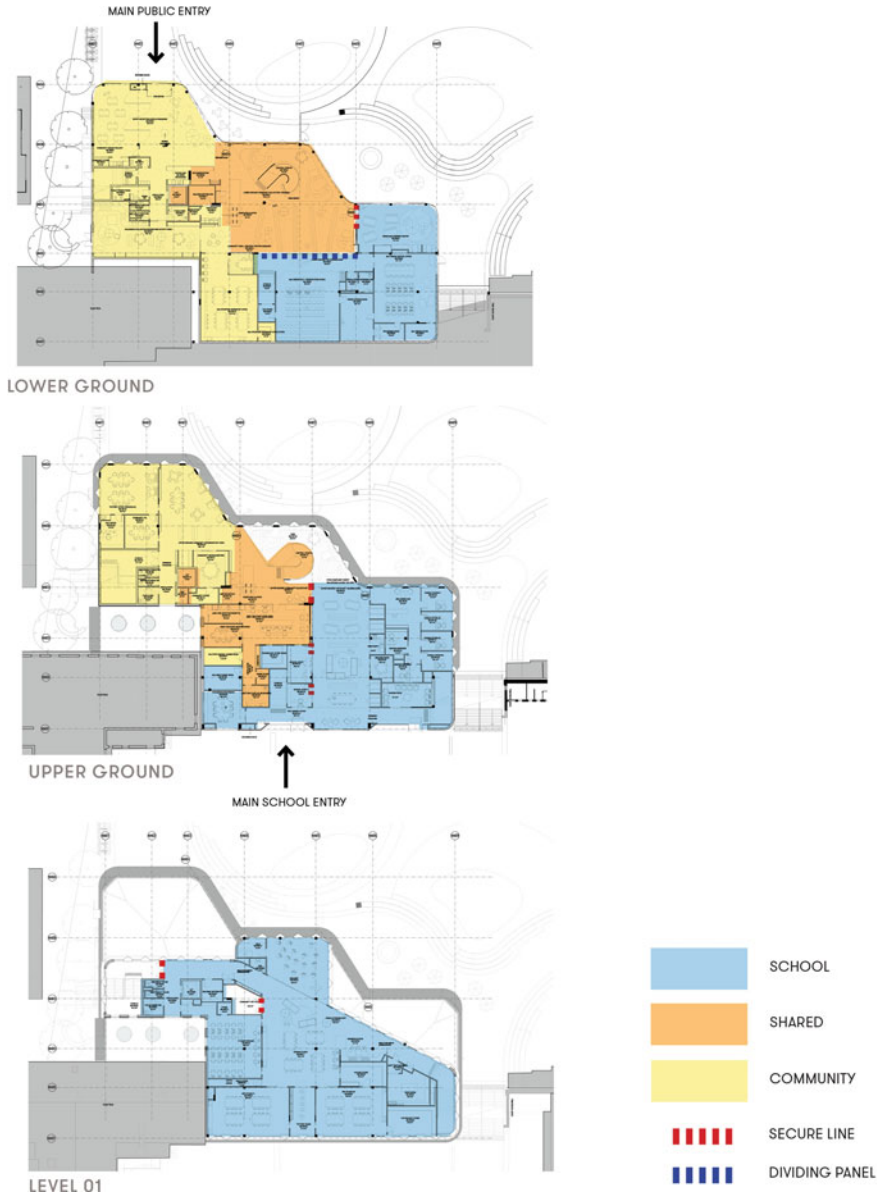


Fig. 9 Zoning of lower ground, upper ground, and level 1 floors (Image by Hayball)

Situating This Case Study Within the NSW Context at the Time

The SINSW School Assets Strategic Plan (NSW Dept of Education, 2017) formalised NSW's intention to develop schools as community hubs. Although there were several existing examples of 'joint use' school libraries in NSW, these projects had been conceived at a local or regional level prior to the development of department-wide policy on joint use. Two of the three existing joint use library projects were successful in achieving their aims while the third had not been successful and was to be disbanded. With the lack of a department-wide policy to guide the individual projects, their success was dependent on whether there was a collective vision that maintained currency and whether appropriate governance and operational systems were in place to ensure the sustainability and practicality of the vision. A report by the Audit Office (2017) noted:

The Department is planning to focus on joint use agreements with local councils. Several agreements are currently being piloted and will be evaluated to provide an evidence-based foundation for this new approach. To develop or refurbish school facilities for joint use, councils, the Department and other key stakeholders must work more closely together and prioritise joint use from the earliest stages of any project. A collaborative, multi-agency approach is needed.

At the time of the initiation of YHS-Hilltops project, mid-2018, the joint use policy and procedures were still very much in the pilot stage.

The Critical Nexus Between 'Hard' and 'Soft' Systems

It is one thing to conceptualise and design a true community hub, it is another to develop the policies and protocols that will ensure its effective, safe and secure operation. No matter how well-designed the 'hard systems' – the settings, spaces and fit out – are to support and enhance learning, good facilities design must be accompanied by the deliberate development and implementation of 'soft systems'. For example, spaces designed for quiet reflective activities will only function effectively if users of the space monitor and modify their behaviour to ensure that any sounds are at a minimum and, although spaces designed to support collaboration set up the physical fit out and layout so that learners can face each other and work together, these spaces do not suddenly bestow the ability for users to collaborate effectively. Getting the nexus between the physical design and the operational protocols right is crucial in a joint use facility.

'Soft system' elements, policies and protocols are being developed collaboratively by the school, the community library staff, the arts society and community representatives to complement the carefully considered design of the 'hard spaces'. During the construction phase it is planned to trial ways of operating that mimic operation in the new facility.

Governance and Funding Models that Will Make It Sustainable

Breaking new ground, wherever and whenever it happens, brings challenges beyond those posed in the complex brief and heritage overlay for the YHS-Hilltops Council project. As a pilot project, it was required to develop systems from scratch for capital expenditure and operating expenditure and to develop, collaboratively, policies and protocols. Although the vision for the project might be understood at the senior levels of the Department of Education and the Hilltops Council, one of the biggest challenges in the design stage was the lack of understanding by personnel who had not been involved in the visioning phase. Many departments still operate silos. Without a deliberate education program and a clear pronouncement of the intention of new approaches to joint use, staff hold on to old models that are competitive and focused on ‘protecting their own’. It is difficult to develop a win–win mentality with departments that are unwilling to collaborate and are geographically and ideologically removed from the community.

As stated earlier in this paper, a shared vision for a joint use project will not be sustainable unless there is alignment between all parties. While successfully developing alignment and commitment to the vision at a local community level, the lack of alignment of department staff raised numerous challenges that had to be overcome. The old proverb, ‘where there is a will there is a way’ is a fitting statement regarding the importance of a collective shared vision. Despite many obstacles, the project is at last ‘shovel ready’ at the time of writing in 2021. The construction of the new facility will begin at any time.

Conclusion

Understanding the place and the community who will use the facility has been a key pillar in the success of the project thus far. A strong shared vision and clear identification of needs together with the fortuitous existence and inclusion of historical buildings, have led to the development of a highly integrated, adaptable facility that will respond to school and community needs. The completed facility will support whole of life learning and community building while celebrating the rich multicultural history of the land and the people of Hilltops.

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Enabling

Emotional Labour and Developing Schools as Community Hubs



Philippa Chandler and Sarah Backhouse

Abstract The benefits of schools as community hubs for students, teachers, families, and the wider community have been documented in Australia and internationally. Indeed, connecting with community is now a key performance indicator for many Australian school principals. Nevertheless, planning, designing, and sustaining community-facing schools can be time-consuming and demanding for the professionals tasked with their delivery. Successful hub projects rely on the creation of trusting partnerships and establishing and communicating shared visions, as well as deft management of entrenched attitudes, resistance to change, and at times conflict. This chapter examines the experiences of professionals involved in delivering schools as community hub projects. Data is drawn from a workshop, post-workshop survey and seven in-depth interviews with school principals, architects, hub partners, policymakers, and others tasked with delivering ‘school as community hub’ projects. Rewarding as hub projects can be, the findings suggest that they can place high demands on the emotional resources of those involved. Our evidence suggests a strong theme of emotional labour, with implications for wellbeing, job satisfaction, and burnout. As a counterbalance, we argue that hub partnership mediators, dedicated hub staffing, and training pathways for leaders may help sustain more schools as community hubs to benefit children, their families and the broader community.

Keywords Schools as community hubs · Vision · Leadership · Emotional labour · Principal wellbeing · Social infrastructure · Community schools · Community facilities · Learning environments

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Introduction

Glenda's eyes shone and she gesticulated animatedly as she spoke of Australian schools' untapped potential to push the boundaries. The former school principal and education policy expert spoke with great enthusiasm about the link between schools and their communities. Then she sighed and said:

I've worked in a lot of large, complex schools with lots of large complex families. The cost to my wellbeing never occurred to me before, but the cost of trying to overcome obstacles in various government agencies had a cost to my health. I just got exhausted by trying to push those boundaries. I'm taking long service leave because I had to make a decision to get better. (Government employee, interview)

This interview with Glenda (a pseudonym), a person recognised as a leader in Australian education policy, was the departure point for this chapter. Glenda had a reputation as an energetic, experienced advocate for schools that can double-up as community hubs. She had worked in a government department credited with establishing several innovative projects that saw schools team-up with partner organisations to deliver efficient education infrastructure that could be used by both the schools and the wider community.

How could a person so respected and successful feel so exhausted by their job? What are the tensions and contradictions for leaders when it comes to developing schools that attempt to offer more to their communities than 'traditional' schools?

The research presented here draws on a project that investigated the enablers and barriers to developing schools as community hubs in the Australian context. Initiating, implementing or sustaining a school as community hub is driven by a desire or need to 'do things differently' for broader benefit. Participants in our research often mentioned that innovative projects require a 'champion'; someone who will strongly and consistently advocate for developing a school that is different. One participant observed "someone's gotta drive the project".

However, championing a project can come at a cost for those who take on the role, contributing time, energy and commitment to foster a shared vision, change entrenched attitudes, and manage and resolve conflict, doing this all with a smile.

The wellbeing of the professionals behind hubs projects was not initially focus of the research, however emotions associated with the challenges of 'driving' hub projects emerged as a theme in interviews and workshops. Maxwell and Riley (2017) suggest that the fine balance between "caring and managing" (p. 485) and presenting a calm face to all stakeholders is central to the school leader's role. Specialists in adaptive leadership argue that leaders should be able to withstand uncertainty, frustration and pain without getting 'too anxious' themselves (Heifetz & Laurie, 2001, p. 128). Yet, Glenda's experience highlights how the additional demands of dealing with a complex collection of government and community stakeholders involved in hub projects can stretch the most resilient and passionate leader.

Over the coming decade, Australia is estimated to require hundreds of new schools to meet the demand posed by population growth (Goss, 2016). Many of these schools will be conceived as community hubs due to emerging policy developments that

include a focus on social infrastructure provision (Cleveland & Woodman, 2009; Lewi & Nichols, 2010). Furthermore, the role of building partnerships with communities is a pillar of the Australian Professional Standard for Principals (AITSL, 2014). Therefore, it is important to understand the emotional demands placed on school leaders when developing successful and sustainable schools that operate as community hubs. Having a more nuanced understanding of the psychological resources required to facilitate and implement such projects may inform ways to mitigate the burnout of project and school leaders and to deliver more hubs for community benefit.

This chapter examines the experiences of school leaders, project and hub managers, architects, policy makers and others involved in offering ‘more than a school’. Emotional labour (Hochschild, 2003) is the masking and management of emotions in response to the emotional demands of work and provides a conceptual frame to their narratives. First, we review literature related to emotional labour, emotional labour in educational contexts and specifically in schools as community hubs. Next, we present findings from workshop, interview and survey data related to the role of developing and sustaining schools as community hubs, focusing on the emotional demands placed on those tasked with delivering these projects. To conclude, we discuss implications and future research trajectories.

Emotional Labour

Emotional labour is the management and performance of emotions in the workplace. Hochschild’s early work focused on front-line service staff such as flight attendants and estimated that around a third of American workers had jobs that subjected them to substantial demands for emotional labour. Hochschild defines emotional labour as distinct from physical and mental labour:

The flight attendant does physical labor when she pushes heavy meal carts through the aisles, and she does mental work when she prepares for and actually organizes emergency landings and evacuations. But in the course of doing this physical and mental labor, she is also doing something more, something I define as emotional labor. This labor requires one to induce or suppress feeling in order to sustain the outward countenance that produces the proper state of mind in others... This kind of labor calls for a coordination of mind and feeling, and it sometimes draws on a source of self that we honor as deep and integral to our individuality. (Hochschild, 2003, p. 6)

Hochschild’s concept of emotional labour has been influential in analysing emotions in the workplace and has been applied to contexts as diverse as athletics coaches (Lee & Chelladurai, 2018), nurses (Theodosius et al., 2020) and men working in female-dominated professions (Simpson, 2004).

Hochschild wrote that emotional labour is not necessarily a bad thing as “no customer wants to deal with a surly waitress [or] a crabby bank clerk” (2003, p. 9). However, Hochschild questions the process of managing emotions, and the benefits and costs of doing so. There is indeed evidence that emotional labour comes at a cost. For example, studies have found connections between the emotional demands

placed on nurses, the related emotional labour and nurses' intentions to leave the profession (Theodosius et al., 2020).

As observed in Glenda's story, these emotional dimensions can impact wellbeing, job satisfaction, and decisions about staying in or leaving a profession.

Emotional Labour in Educational Contexts

The concept of emotional labour has been influential in analysing the work performed in educational organisations. After all, teachers are engaged in physical and intellectual labour, but they are ultimately "hired and monitored for [their] capacity to manage and produce a feeling" (Beck, 2018, para. 6). Emotional labour has been applied as a theoretical framework to analyse a variety of educational contexts from early childhood education (Taggart, 2011) to university lecturers (Constanti & Gibbs, 2004). Research has shown that emotional labour is one within a complex web of factors related to teacher burnout (e.g., Bodenheimer & Shuster, 2020; Crawford et al., 2018; Kelly et al., 2019) and is intertwined with teachers' emotional investment in their work (Isenbarger & Zembylas, 2006; Wilkinson et al., 2021).

Leading a school requires balancing 'self-care', 'care for others', 'being good' and 'doing good' (Blackmore, 2011, p. 223) with being concerned with the development of knowledge, thinking and skills of students and staff (Wilkinson et al., 2021). In the Australian context, the need to support the wellbeing of school leaders is increasingly recognised in research and practice. For example, school leaders display significantly higher scores on emotional demands at work and burnout, and significantly lower wellbeing scores than the general population (Maxwell & Riley, 2017). Indeed, a 2018 survey of Australian school principals found that emotional labour demands were 1.7 times higher than the general population (Riley, 2018). Australian policies such as the Principal Health and Wellbeing Strategy 2018–2021 developed by the Department of Education and Training (DET, 2018) make clear that the impacts of these emotional demands are real.

Emotional Labour in Schools as Community Hubs

If the day-to-day work of delivering education requires emotional labour, then it is logical that initiating or sustaining 'more than a school' demands additional emotional labour from a wider range of people.

Scholars have examined the emotional demands placed on school leaders when working in innovative ways (Osborne, 2020) or establishing stronger links between schools and their communities (Forde, 2017). A school may have a strong focus on 'community making' (Wilkinson et al., 2021, p. 165) that is driven by its values. Such work requires identifying shared visions and values across diverse stakeholders with differing priorities and demands emotional labour to establish and sustain inclusive

school cultures (Forde, 2017). School leadership is an “essential element” (Hands, 2010, p. 198) in brokering these relationships, building trust, and putting in the extra “energy and commitment” (Martin et al., 1999, p. 65) to make such partnerships work.

School leaders are not alone in experiencing the emotional labour of creating schools as community hubs. For a school developing an integrated service with early childhood professionals, the importance of trust may be “emphasised repeatedly” (Wong et al., 2012, p. 86) as the overall vision is negotiated to ensure a smooth client experience. As schools as community hubs often focus their efforts in areas of social vulnerability, school staff may need to conceal their stress as they support students or communities through traumatic events (Lawson et al., 2019). Furthermore, school designers appreciate that designing new facilities or physical environments involves some degree of change (Osborne, 2018), and the act of change demands emotional labour (Bryant & Cox, 2006).

Despite the emotional labour involved in establishing and sustaining learning communities, research suggests that seeing rewards—such as learners’ growth and thriving communities—may mitigate against burnout (Crawford et al., 2018). However, research to date has focussed on teachers and principals rather than the range of other professionals involved in delivering schools as community hubs. Establishing strong connections “between schools and the surrounding community requires a great deal of effort on the part of the individuals involved” (Hands, 2010, p. 190).

Methods and Findings

In May 2020, the research team facilitated an online workshop. The virtual format enabled the participation of 33 Australian professionals who have worked on school as community hub projects. Participants included government bureaucrats, school leaders, hub coordinators, planners, architects, health and human services providers, community groups, and a range of NGOs.

This interactive workshop involved whole group mode and small group discussions in six virtual breakout rooms. Discussions were spread across two sessions. The first session saw participants discuss the contribution their organisation could make to a new school community hub project on a greenfield site on the urban fringe. Participants discussed how their organisation would contribute to the project’s phases, and what would constitute success in such a project. The second session required participants to discuss the barriers that their organisation would typically face in the redevelopment of a school site for shared use. Participants were asked to consider what information would assist their organisation, and what lessons they had learned from their professional experience that might ease the path of others attempting similarly complex projects. The workshop discussions were recorded and transcribed, resulting in over 45,000 words of transcripts.

Surveys were sent to participants before and after the workshop, with the pre-workshop survey including a plain language statement about the research together with a consent form, consistent with the University of Melbourne's Human Research Ethics protocols. Insights from those surveys were integrated into the following analysis, as were the notes from each of the five facilitators.

Additionally, seven in-depth interviews were conducted with professionals who have worked establishing community hub projects with schools. These professionals included architects working in private practices who have lead school projects, an employee from an educational NGO, a representative from local government and one from state government. Interviews were tape-recorded, transcribed and analysed.

The workshop conversations, facilitators' notes, pre-and-post workshop survey and interviews are a rich bank of narrative data. The data was examined closely to identify common themes, assisted by NVivo software. Over 40 themes were identified, and this chapter explores the sub-section of these themes relating to emotions and labour. Quotes have been edited lightly to enhance their readability, yet care has been taken to preserve the intended meanings of the statements.

Champions, Vision and 'Shared Vision'

When reflecting on what made some community hub projects more successful than others, workshop participants felt that successful projects were underpinned by a 'vision' of the intended benefits. This was sometimes articulated as a 'shared vision', 'clarity of purpose' or 'shared dreams, passions and ideas'. These common ideals were considered especially important when complications arose throughout the project phases. One participant reflected that within the process they were:

Trying to shift decision making away from an ego-centric model to one that's really about children, families and the greater community. Trying to dissolve the barriers that people perceive between government departments. Using the power of narrative to establish a sense of working towards the same outcome. (Workshop participant, government health department)

When challenges arose within the projects, this vision was key to overcoming them. One participant said of the process "[it was] torturous at times because it has gone on and on ... but it is working because of goodwill and passion for the outcomes". Another commented that: "operational issues – from the milk usage to the cleaning – can be managed once a shared vision for the site is agreed. Everything is 'figure-out-able'".

Vision was sometimes seen to be championed by an individual person within a broader project, marrying vision with strong leadership. This person was sometimes a school principal, but could be from an education authority, local council, architecture firm or NGO such as Our Place. One participant said that the effort was collective yet "you're still going to have somebody as the backbone". Similar quotes include "you will need someone to drive the project in each school" and "hubs need to be driven by someone".

Other participants, however, felt that it was important that responsibility for the overall vision did or should not fall to an individual person. This tension is captured in this interview with an architect:

Interviewer: What went well in that project?

Architect: Having someone leading the change, someone coordinating the project. That was the only way it worked.

Interviewer: Who was that person?

Architect: That was Glenda. And Susan. You needed someone who had a particular vision, *a group* that had a particular vision, and was prepared to execute it. (Architect, interview)

The architect initially credits Glenda as ‘leading the charge’ to create a successful school as community hub project. However, the architect pauses and mentions Glenda’s colleague Susan and the group that they work in. Plans needed to be in place to safeguard the vision if key people left the school or the project. Maintaining or securing the vision required.

Ongoing commitment beyond the current people involved. It needs a long-term commitment from the school and/or its governing body. A project can’t rest on the goodwill and foresight of others who will inevitably move on. There needs to be more than a “champion” model. (Assets & Infrastructure Manager, post-workshop survey)

Another respondent to the survey reflected:

Continuity of vision from all parties allows for continued operation of management and operation. This is vital when leadership changes, that the impetus is not lost of the overall vision. Ongoing support for the school in terms of funding and operating community hubs is vital, so that the ongoing operation is not seen as a burden over time. (Architect, Pre-workshop survey)

This tension between having a single person ‘championing’ a vision versus the notion of having a ‘shared vision’ is not unique to schools and is indeed explored widely in the business world. A ‘champion’ might otherwise be referred to as a ‘change leader’ someone who steers an organisation through periods of ‘business beyond usual’ (Osborne, 2020, p. 4). While some business scholars claim that embedding a shared vision is key to any successful organisational culture (Kouzes & Posner, 2009) others suggest that there are many kinds of ‘shared vision.’ For example, top-down attempts from charismatic leaders to embed their own values across an organisation are distinct from more democratic approaches that promote the active involvement of team members in the “development, communication, dissemination, and implementation of organisational goals” (Wang & Rafiq, 2009, pp. 12–13).

In the context of establishing and sustaining schools as community hubs, there is undoubtedly emotional labour involved in the development of a ‘shared vision’. As mentioned above, the time commitment required beyond that of an already demanding schedule puts pressure on professionals including school principals to support the expansion of a traditional school into the novel and expanded community hub desired. The challenge of an individual holding sole responsibility for the vision when combined with a leadership role will be discussed further below.

Changing Entrenched Attitudes

The traditional notion that a school's role is limited to the provision of education was cited as a barrier by participants wishing to work in more innovative and/or holistic ways. Many participants emphasised the importance of challenging entrenched attitudes about how schools are usually designed, planned and managed. Phrases like 'change the narrative', 'overcome the old mindset' and resist 'business as usual' were used. This participant explains how they see this process:

People tend to get siloed into their own areas and find it hard to move into a more shared arrangement. It's all around stakeholder management - being able to bring the community along with the vision from day one, before we get too far to having a strong vision. There have to be reasons for people to want to change. Once people can see the reasoning, then they're more likely to join in. But we with found with these sorts of projects, you always end up having some detractors. It's a matter of working with the people who are onboard and bringing the detractors along. Like any cultural change, I guess. (Architect, workshop)

When discussing the importance of changing entrenched attitudes, it was notable that participants used emotive language such as *challenging, brave, try, 'find it hard', detractors, resistant, feels, motivate, ownership and willingness*. These phrases render visible the labour that goes into building consensus and deftly managing emotions; both ones' own and those of others.

When Glenda says that she 'got exhausted trying to push those boundaries' she is describing how tiring it was to continually come up against entrenched attitudes about schools' role in Australian society. In other words, the emotional labour required to change people's minds took a toll on Glenda's wellbeing.

Conflict

Participants described instances of conflict, particularly in the early stages of establishing a school-community hub project. Interestingly, this conflict was regarded as an inevitable challenge when asking different organisations to collaborate on a novel initiative. One participant who was leading such a process had encouraged the project's stakeholders to "discuss and debate and challenge each other". Another participant said that "lack of agreed overarching community hub principles" was a challenge, and one that required intense discussion among participants, who required support to experience conflict and find a solution. One architect recalled working on a particular project where:

The Education Department were coming along [to project meetings] and doing a lot of hand wringing and 'harrumphing' about what we were doing. (Architect, interview)

Navigating conflict is a form of emotional labour, particularly if the individual needs to project one emotion (such as optimism or calm) while feeling differently. In this example, the participant describes 'holding' uncomfortable emotions while stakeholders negotiate:

My key comment is [about ensuring] the capacity of leaders within organizations to hold that chaos and discomfort for long enough for the solutions to emerge because they always do. If you hold that space long enough, the group will find a solution. ... [A few colleagues and I] had full support from our chief executive to be a part of that chaotic discomfort (sic) conflict without feeling like there was an expectation that it had to be smooth the whole time. ... I think really having the support of the leaders to say, yeah, we expect this to be rocky and we expect there to be conflict and escalate as you need. But also just be okay sitting in it. And ... having an executive order or a Director General who says ... I expected to have to meet with the ministers to get together to resolve something about this. And that is normal and accepted, [and] is not a sign of failure of the system. ... Having that leadership with that sense of patience and an expectation that conflict is a part of the process. (Workshop participant, government children's health department)

These quotes have demonstrated that professionals involved in delivering schools as community hubs experienced conflict, while working to establish shared visions and negotiating between stakeholders. While conflict may be a necessary and inevitable part of planning a school, navigating it requires emotional labour plus time, energy and commitment – which will be explored in the next section.

Time, Energy and Commitment

While a traditional school delivered by a government department can be planned, built and opened relatively quickly, additional time and energy were required when working in non-traditional school projects that saw collaboration between organisations that don't usually work together. Earlier in this chapter, a participant described the negotiation between stakeholders as "torturous" because it went "on and on". Glenda described a school project where the planning discussions "went on and on and on and on and on, and round and round in circles" for a decade, before being finally opened. Another agreed, commenting that "it took a lot of time and energy for the three parties to get an understanding of what a hub might be."

With longer time frames, commitment was therefore seen as essential in the establishment of schools as community hubs. At times, commitment could refer to the commitment of funding or other resources but at other times it specifically meant emotional commitment – tenacity or determination. Glenda said described taking a group of stakeholders to an exemplar school:

We had them all sit and discuss and debate and challenge each other. In that group, it does take a *commitment* from those people! You need to sell (the idea) early to show that there's going to be great benefit to us all if we all persevere and respect each other. We're not going to find solutions that suit all of us. But overall, we'll find solutions. (Glenda, workshop)

Commitment was mentioned again later by Glenda, who described two close colleagues in her government department as being 'two of the strongest' and yet:

None of them have the same knowledge and understanding and *commitment* that I do. I go, 'We can find a solution for that!' and they say [hesitantly] 'Oh, I don't know...'. (Glenda, Interview)

It is perhaps understandable that Glenda, as an informal ‘change leader’ (Osborne, 2020) would need to demonstrate commitment, but it is notable that a broad range of professionals involved in such projects also had to show additional commitment to working on an innovative school project.

These insights corroborate Canadian findings that fostering stronger connections between schools and communities requires extensive commitment and effort of all those involved (Hands, 2010). Research has shown that partnerships are typically developed during teachers’ personal time during lunches, preparatory periods, and after school hours, since there is often no time allocated for partnership development during the workday (Hands, 2010). While the participants in this chapter are not just school staff – but include government representatives, school leaders, hub coordinators, planners, architects, health and human services providers, community groups, and a range of NGOs – it is interesting to see this alignment of Hands’ research with an Australian context.

The Role of the Principal

The attitude of the school principal was identified as an important factor in a hub’s success, despite the best efforts from a wide range of other professionals involved in establishing such projects. Principals were sometimes already appointed and able to provide input on the designs of new projects, whereas in other instances may join the school after partnerships have been established and capital works have finished. One architect felt that having a principal involved in the design process could create difficulties:

One thing we did find frustrating was that some school principals have a certain view about the way schools are done and they have probably far too much say about how individual schools are designed and run. (Architect, interview)

The ideal principal was described as someone who would ‘buy-in’ to the concept of the community hub, and who would act as a ‘project champion’ advocating for an innovative way of working:

The appointment of a principal who connects and supports the vision is critical. The best plans, design, construction, programming can come undone if the school culture doesn’t support the Community Hub. (Anonymous, post-workshop survey)

A change in school leadership could mean a disruption in the management or governance of a successful community hub. Citing a particular example from their experience, one participant reported that:

Access to [shared facilities in which our council has invested] declines over time unless the principal wants to actually continue it. The next principal comes in who has not been in a school with shared facilities: ‘Who are these people wanting to use my oval on Tuesday nights?’ (Former principal, now director in state education department, workshop)

The workshop included an ex-principal, who articulated how running a school as community hub can place additional demands on a principal:

As an ex-principal, it's a difficult job. It's a really, really big job running a school of two thousand kids. But there's a fine line about when you start getting to other issues around what my role is. I went to university to become a teacher. I'm a principal. I engage with my community. But am I also responsible for drug rehabilitation programs on my school? Am I responsible for domestic violence counselling? When does that stop... what does that actually mean from an industrial point of view about what my role is?" (Former principal, now director in state education department, workshop)

This principal is making explicit the emotional labour involved in running a school where the remit has expanded from school's traditional role of providing education to a more expansive, holistic remit of supporting children and families' wellbeing. There is an unresolved tension about whether principals are best suited of the role of 'change leader' when it comes to establishing schools as community hubs, or whether this runs the risk of having them leave the project and take their passion elsewhere.

Discussion

This chapter opened with a quote from Glenda, a former school principal and education policy expert taking leave from her role in government due to her concerns about work-related burnout. While Glenda is recognised as having outstanding leadership skills, this has come at a personal cost. This chapter has illustrated the emotional demands of navigating the complex partnership brokering and relationship building involved in making schools as community hubs happen. As Glenda herself says, "it is tiring trying to wave the flag and be optimistic".

In the context of our project, with its focus on infrastructure, these findings are a reminder that excellent facilities alone do not make an excellent school as community hub. Rather, successful school-community hub projects are underpinned by emotional labour—the ability of project leaders and stakeholders to emotionally navigate the inherent complexities of working with diverse views, novel partnerships and varying ideas of what constitutes success.

While the emotional labour of school leaders has been documented in existent scholarship, our research indicates that there is significant emotional labour performed by a broader range of professionals including architects, planners and policymakers such as Glenda.

The emergent themes have highlighted four key areas for future research and policy attention.

First, mediating or advocacy organisations can support positive outcomes and help to alleviate conflict in projects where schools are seeking to partner with organisations. In the Australian context, non-government organisations including Community Hubs Australia and Our Place advocate for community-focussed schools as do government divisions such as the former 'Community Hubs & Partnerships' team in

the Queensland state government. Apart from evaluation data on specific projects, there is little research in the Australian context on how intermediary organisations ameliorate the potential of school as community hub projects.

Second, dedicated personnel resources such as ‘hub coordinators’ make a real difference. Our research has demonstrated how these dedicated resources can help alleviate the burden on principals and teachers. However, little is known about the experiences of the people in these roles. What makes a good hub coordinator? How many schools have them? What do hub coordinators themselves think about the factors that shape successful school as community hub projects? Further research with hub coordinators could be instructive, particularly in augmenting teacher training as explained above.

Third, teacher training creates excellent teachers yet does not necessarily prepare them to be hub coordinators who work in community-facing ways when the community extends beyond the confines of the school community of students, parents and teachers. Indeed, one principal highlighted this issue by stating “I went to university to become a teacher”, feeling ill-equipped to offer additional care to students and their families. Australia’s higher education sector, responsible for delivering teacher training, needs to equip teachers and school leaders to work effectively in these emerging school models that have a greater emphasis on collaboration and student wellbeing. There is an opportunity to explore the interface between teaching roles and hub roles, possibly by considering pathways for further skill development of teachers and allied professionals.

Fourth, the gendered aspects of education infrastructure projects merit further exploration. Gender was not a focus of this project nor of this paper. However, it is worth noting that teaching is a vastly female-dominated profession with approximately 70% of primary and secondary teaching staff being female (ABS, 2019). By contrast, other industries involved in funding, planning, designing, building and managing schools as community hubs are not. For example, the Australian architecture profession is male dominated (Matthewson, 2017). What are the experiences of emotional labour during school-community hub projects for people of different professions and genders?

Conclusion

Successful schools that operate as community hubs rely on the establishment and communication of shared visions, the creation of trusting partnerships and the deft management of conflict, resistance and entrenched attitudes. These projects can create the conditions for thriving communities and contribute to a sense of job satisfaction and meaning for the professionals involved in delivering them. Yet, Glenda’s story shows that being a project champion or informal change leader can come at a cost, particularly when the role involves challenging entrenched attitudes and motivating others. While it was very common for participants in our research to express the idea that ‘all projects need a champion’ there was little regard for how

draining this role can be. Furthermore, emotional labour was performed by a wide variety of professionals involved in the project design and delivery. There was also an unresolved tension between participants' expectations that projects have a single 'champion' versus having a 'shared vision' held by the whole project team.

As more Australian schools strive to operate as community hubs, both the hard resourcing of these projects (funding, staffing, infrastructure) and human resourcing (fostering the wellbeing of all those involved) is imperative to ensure more learners and communities can enjoy the benefits.

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Policy for Schools as Community Hubs: Insights Into a Fragmented Environment



Robert Polglase , Ian McShane , and Benjamin Cleveland 

Abstract Schools as community hubs are recognised for their significant contributions to communities. Yet, these projects must negotiate complex and often fragmented policy environments that cross government jurisdictions and disciplines to achieve stakeholder support, funding, and operate over the longer-term to deliver benefits to communities. Policy research in this area is scarce. This chapter discusses policy for schools as community hubs through the lenses of Bacchi and Goodwin’s ‘problem representation’ approach and ideas about performative and locally enacted policy. This theoretical framework is applied to Yuille Park Community College, in Victoria, Australia, as an interpretive policy analysis to reveal insights into the policy environment that was negotiated to develop this community-facing school. Now proclaimed as a ‘whole of life’ community centre, Yuille Park relied on the skill and continuity of key actors who—with little formal policy direction—coordinated solutions across service provision, urban planning, and facility design to make a difference to a struggling community, generating neighbourhood uplift and helping to overcome entrenched intergenerational challenges.

Keywords Schools as community hubs · Interpretive policy analysis · Policy problematisation · Performative and enacted policy

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Introduction

The opportunity to better use and enhance school infrastructure through integration with programs and services targeted towards the broader community has long been recognised. The sharing of school-related social infrastructure dates back at least a century (Glueck, 1927). Nevertheless, Cleveland and Woodman (2009) observed that school facilities remain some of the most underutilised public and private assets in Australia, with most used sparingly outside of school hours, on weekends, or during school holiday periods. Additionally, Tayler et al. (2002, p. 1) observed that “a history of single focus, separate, specialised, and competing services has led to widespread dissatisfaction with service provision ... viewed by many to be inflexible, inaccessible, or out-of-touch with the needs of contemporary families”.

While this situation continues to resonate, proposals to develop schools as community hubs are gaining momentum in Australia and internationally (Cleveland, 2016). But progress is frequently slowed as projects must navigate fragmented policy terrains to coordinate objectives, priorities, and funding sources, and build and sustain partnerships with service providers and local communities.

Policy research in this area has been largely neglected, with research in the field predominantly focused on architectural design and the program elements of shared schools, rather than policy-related issues. Limited attention has been paid to the challenges involved in coordinating social infrastructure provision (McShane & Wilson, 2017), or the intersections of education, social and urban policy, and planning (Vitiello, 2006). This lack of research into policy analysis may have had a significant impact on the delivery of schools as community hubs.

Informed by Bacchi and Goodwin’s (2016) concept of policy as constituting or representing problems, this chapter contributes to filling this policy research gap by discussing the policy environment and dynamics associated with developing schools as community hubs. Further, using a complementary performative and enactment perspective, which focusses on how local actors interpret and apply policy directives (Ball et al., 2012), the paper analyses a ‘schools as community hub’ project: Yuille Park (Prep to Year 8) Community College, located in Wendouree, in the central Victorian City of Ballarat.

The Yuille Park case study example demonstrates the ‘problem’ of a significantly disadvantaged community, while showing the contingency of policymaking ‘on the run’, evident in the gap between formal written policy issued by government with local adaptations and enactments of policy in a community setting. This example, it is argued, highlights some conceptual and methodological challenges of policy research, while serving as an instructive case study for policymakers in the field. We argue that application of this theoretical schema provides a useful explanatory framework through which to understand policy discourse, while calling attention to the value of policy and project development arrangements that enable emergent, place-based insights and local agency.

Interpretive Policy Approaches

Working Back from the Problem

Bacchi's (2012; Bacchi & Goodwin, 2016) 'What is the problem represented to be?' (WPR) framework provides a critical interpretive policy analysis approach that offers utility as a resource, or tool, to facilitate interrogation of public policies, including those associated with schools as community hubs. WPR is intended to make clear that the point of the analysis is to begin with postulated 'solutions', such as policies, to tease out and critically examine their implicit problem representations. Bacchi suggests that a WPR analysis can be developed by asking the following questions:

1. What's the problem represented in a specific policy or proposal?
2. What presuppositions or assumptions underpin this representation?
3. How did this representation evolve?
4. What is left unproblematic in this representation? Can the 'problem' be thought about differently?
5. What effects are produced by this representation of the problem?
6. How/where has this representation of the 'problem' been produced, disseminated and defended? How has it been (or could it be) questioned, disrupted and replaced? (Adapted from [Bacchi, 2012, p. 21])

The extent and detail to which such a framework is applied may vary between different policy cases. The underlying point to make is that public policy, whether in the fields of education, social services, health, or other domains, is, on Bacchi's account "not the government's best effort to solve 'problems'; rather, policies produce 'problems' with particular meanings that affect what gets done or not done, and how people live their lives (Bacchi, 2012, p. 22).

Performative and Enacted Policy

As the case of Yuille Park shows, policy may not necessarily be formalised, authorised, or sometimes even written down. However, it is possible to identify a set of texts and practices, central-level policy directives, local adjustments and adaptations, to identify what was 'problematised', how local actors understood and responded to the problem, and how these dynamics shaped the evolution and outcomes of the project. Ball et al. (2012) argue that in educational settings, which are characteristically subject to waves of policy intervention, new methods, and changing approaches to student assessment mandated by central authorities (see also Ball, 2008), part of the skill repertoire developed by school leaders and educators involves interpreting and implementing such directives in the specific context of their communities, schools and classrooms. The rationales for this may vary: from resistance to what are perceived to be inappropriate or unworkable directives, to a need to broker or operationalise

new policy changes or build partnerships, to responding to silences and gaps in the policy texts of central government agencies. In effect, local actors ‘perform’ when they speak back to policy or demonstrate the ways in which policy is enacted. As the Yuille Park project indicates, the transactions between central and local actors were somewhat fluid and emergent, where a loosely coupled relationship (whether intentionally established or not) afforded local agency and place-based adaptations.

Policy Case Study: Yuille Park P-8 Community College, Wendouree, Victoria, Australia

In the Australian context, Yuille Park is illustrative of an education-community model that was planned, programmed, and designed to what was represented as the specific service needs of its community. It opened in June 2008 as an exemplar ‘school as community hub’, pioneering a wave of investment in school-based hubs in Victoria. Its genesis was the closing of two schools, Grevillea Park and Yuille Primary—a regeneration strategy that has been adopted in several similar projects, particularly in areas of low educational attainment (Department of Education & Early Childhood Development, 2009). The two schools were amalgamated to become a new education-community hub pilot, offering with twenty-two community service functions. Additionally, a pre-school operated by Uniting Care and Wendouree West Community House was relocated to the site to become Wendouree West Community Learning Hub, a whole-of-life learning and community centre (Figs. 1 and 2) embedded within the school. The current suite of facilities and services on the site, described below, point to the wide range of activities and suggest a complex management scenario:

The shared facilities include: meeting, conference, training, interview rooms; library; large multipurpose space designed for school assemblies; indoor sports (including basketball half court), functions and performances; home economics kitchen, and canteen space; art studio, and materials technology workshops complete with segregated storerooms; music activity, band practice, editing suite’. (Department of Education & Training, 2020, Facilities section)

Today, Yuille Park operates seven days a week, accommodating both school and community groups. The following account of its development arises largely from resources and direct experience from the lead author’s work with the architectural firm that planned, designed, coordinated delivery, and led post occupancy evaluation for Yuille Park.

Policy Contexts

The policy narrative at Yuille Park begins with the ‘problematization’ of a failing neighbourhood. The suburb of Wendouree West was originally built by the Victorian state government to accommodate rowing athletes for the 1956 Summer Olympics.



Fig. 1 Wendouree West Learning Hub School Courtyard (Photography by Emma Cross)



Fig. 2 Wendouree West Learning Hub from street at night (Photography by Emma Cross)

Prior to the Yuille Park project commencing, Wendouree West had become run down, featuring boarded up shop fronts and poorly maintained infrastructure. Poor quality housing, petty crime, unemployment, student truancy, and poor community mental health were among long-term challenges. As described by community members, “declining work in the community also meant there was nothing left for many of us – we just sat at home, getting worried and depressed about things. We felt futureless about ourselves” (Wellbeing Wendouree Inc., 2008, p. 32).

The response to this situation took the form of an education-led intervention, where new infrastructure investment by State Government generated alignments with a community partnership focus on disadvantage. This new policy problematisation focussed on boosting human and social capital and service engagement, superseding earlier policy interventions that saw the ‘problem’ as individual and cultural, and

which focussed on more overtly disciplinary strategies such as policing crime, and monitoring welfare entitlements and work activity.

Adaptive Education and Community-Enacted Policy

An integrated, education-led, community regeneration policy model was fundamental to Yuille Park's planning and facility delivery. The policy process which emerged for Yuille Park may be viewed as the project's most significant policy achievement. A preparedness to undertake 'policy on the run' was essential for achieving community consensus around services selection, programming, site planning, design options, operations, and facility management.

Community consultation and planning for Yuille Park began in 2001, seven years before the school and community hub eventually opened in 2008. The brief for the amalgamated school developed from both formal and informal participatory community engagement, through phases that loosely corresponded with feasibility, master planning, and functional facility design.

Customised Education Policy

Interdepartmental Advocacy State government advocates from both education and community portfolios were pivotal to determining a locally developed brief that achieved a high level of community consensus. Atypically, leaders from the Department of Education and Early Childhood Development (DEECD), which became the/Department of Education and Training (DET) in 2015, and Department of Health and Human Services (DHHS) were willing to take calculated risks and work proactively to bring their agendas together, supporting locally generated solutions (Well-being Wendouree Inc., 2008). The regional setting of the project and established status of the suburb were also contributing factors. The project participants knew each other, and participatory engagement was possible with an existing community, whereas such a strategy may be less feasible in new outer-suburban growth areas. The development process was, however, complicated by the limited participation of the local government authority, the Ballarat City Council. Establishing effective multi-level governance, with in this instance the state-level authority responsible for education provision and the local government sector overseeing the inclusion of community and social services, has proven a complex undertaking in such projects (McShane & Wilson, 2017).

Responsive Pedagogy and Customised POD Learning Environment An adaptable education policy enabled the development of a customised 'learning hub pedagogy' that was supported by a 'pod' learning hub architectural solution. This allowed for individual and group learning within an interdisciplinary environment that supported cross-curricular integration. A team-teaching approach was planned

and developed, with buildings accommodating learning communities for Grades Prep-2, 3-5, and 6-8. Shared teaching environments were afforded through connectivity with staff work areas, both visually and physically. The learning spaces also included outdoor landscapes, multi-sport environments and a Stephanie Alexander Kitchen Garden (funded by a philanthropic trust), providing nutritious food used for student breakfasts and lunches, prepared at a shared commercial and community kitchen at the heart of the school. As a relatively unknown pedagogical approach in the State at the time, adoption of this program required trust-based leadership at both local and State level. With support from DEECD, the school principal led this 'new' learning hub pedagogy, working closely with a predominantly new and enthusiastic teaching cohort.

Risk and personal safety in operation Risk associated with personal safety, especially for children in a facility used by adult users throughout each day, was a concern which necessitated considered design solutions. Schools that operate successfully as community hubs reconcile strategies regulating access (for student/staff security) and promoting accessibility (for community participation). The masterplan responded quite deliberately to parental concerns about child safety by zoning different facilities on the site to ensure some functions were separated from school areas. These included training and workshop areas, which were accessed from street frontages, away from school entries and outdoor play spaces. This approach provided spatial design clarity for users, without the need for overt signage. Adult users quickly adopted predictable movement patterns, which were reinforced by rituals of daily or weekly use by many.

Policy Enactment for Skills, Training and Local Employment

In addition to primary and middle years education (P-8), adult education on site was supported by DHHS. Employment training, with a focus on technology skills, became popular, supported by the development of a shared learning space connected to the community-oriented library. In addition, the commercial kitchen was used to train chefs, including many who took up employment across the city. Over time, community members gained new skills that supported them to take up roles at Yuille Park and in the wider community. After the initial Yuille Park P-8 campus construction, within the past few years two additional campuses, focussing on vocational training for young adults, and specifically providing for young parenting students, have opened.

Flexible Procurement Policy

Over the unusually long consultation and planning period, year-on-year funding was budgeted by the Department of Treasury and Finance in response to emerging needs

that were agreed by DEECD and DHHS. The acceptance of an extended, rather than typical project timeframe allowed planning and architectural design teams to be contracted earlier as well as for longer, enabling deeper engagement with members of the community, state department representatives and school leaders. This approach supported various forms of adaptation and refinement, as local needs were determined, and suitable design responses created and iterated. For example, the master planning process generated new neighbourhood transport connections to a new railway station and upgraded public space. These transport and recreation nodes later became locations for student-produced art installations, representing community identity and pride.

Filling Policy Gaps

The Yuille Park project may be viewed as the product of historic policy failures that inadequately addressed long-term unemployment and disadvantage, evidenced by consistently low socio-economic demographic data and conditions until recent years. The community-centred planning process that was ultimately undertaken filled policy gaps and failures to generate a place of community activity, pride, and employment in subsequent years. It is notable that no detailed written policy precedents, beyond the standard education and community health policies and facility standards, were available to guide social infrastructure development when Yuille Park was developed. Some written policy advocacy has occurred retrospectively (Department of Education, 2010, 2015), partly capturing opportunities from lessons learned.

The school's opening became a catalyst for new housing development in the area (Wellbeing Wendouree Inc., 2008). Further, residential upgrades stimulated economic activity for the neighbouring commercial street.

In the first years of operation, Yuille Park attracted influential visitors, including the Australian Prime Minister, along with many local, interstate, and international visitors interested to see the school as community hub model that had been created. The project was formally awarded by the Victoria State Government and Council of Education Facility Planners International (now Learning Environments Australasia) for its design and was also recognised for urban community transformation and design by the Urban Design Institute of Australia.

Toward Integrative Policy Futures

As a case study, Yuille Park's interpretative policy narrative provides opportunity for applying Bacchi's (2012; Bacchi & Goodwin, 2016) 'What is the Problem Represented to be?' (WPR) framework. WPR policy analysis reveals vital perspectives on policy dynamics, such as those all-too-complicated integrative policy arrangements

common to schools as community hubs. Despite fragmentation and a lack of pre-determined policy coordination around the Yuille Park project, the skill and continuity of key actors gave rise to a range of coordinated solutions across service provision, urban planning and facility design that over time have made a significant difference to a struggling community. Yuille Park represents investment in, and development of, shared resources that have aided the development of social capital in the area and generated neighbourhood uplift. The development of a ‘whole of life’ community centre (DET, 2020) has helped tackle complex intergenerational challenges, where less holistic policy approaches had failed, having perhaps mis-represented the problems endemic for decades the Wendouree area.

Looking towards the future for schools as community hubs, it appears essential that fragmented policy environments become better integrated. Relationships between relevant policy portfolios need to be better established to enable services to emerge in response to community needs, and in timelines relevant to developing and implementing new hub projects. Lessons learned about the policy entanglements that projects such as Yuille Park have successfully negotiated during years of operation also need to be captured and shared, making it easier for others to traverse often overlapping and therefore challenging policy terrains. Applying the policy theories of Bacchi and Goodwin (2016) and Ball et al. (2012) to seek deeper and broader insights into the policy environments within which schools as community hubs must exist can assist future leaders to take more projects like Yuille Park forward.

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Theorising the Development, Implementation and Sustainability of Schools as Community Hubs



Carolina Rivera-Yevenes 

Abstract Increasingly, school-based community hubs are aiming to engage and connect communities and service organisations in their daily operations. While some schools offer additional services to community members and share their facilities, there is limited research in the Australian context into how schools succeed in making their infrastructure and extended services accessible to both school and community members. This chapter proposes a research framework to investigate how schools as community hubs (SaCH) have been developed, implemented, and sustained, for the purpose of seeking insights into the processes, challenges, and lessons that have been learned by those involved. The chapter presents findings from the PhD study being undertaken by the author to illustrate how the framework guides attention to the socio-material relations at play within schools operating as community hubs, helping to make connections between the built environment and inhabitants' practices, activities, and behaviours. The framework supports qualitative inquiry into the lived experiences of those associated with conceiving, delivering, operating, and using schools as community hubs, privileging the voices of policymakers, planners, designers, operators, and users.

Keywords Schools as community hubs · Extended schools · School-community relationships · School facilities · Social infrastructure · Henri Lefebvre

Introduction

As Australian cities have grown in recent decades, municipal governments have been under increasing pressure to provide services to communities, particularly in urban fringe areas where space to build new infrastructure is scarce (Infrastructure Australia, 2019). As a result, there is renewed interest in how school infrastructure may support community services and activities. Current underutilisation of school

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infrastructure outside of school hours (Cleveland & Woodman, 2009; Infrastructure Australia, 2019) means that opportunity exists to maximise how facilities are used to include community members as users of school environments, aiding their access to vital education, health and wellbeing services and programs, as well as informal gathering and recreation opportunities.

State funded schools across Australia are expected to foster connections with and between families and communities as part of their overall objectives (McShane et al., 2012), yet such connections are not as strong as they could be in many schools.

School infrastructure can provide more than just spaces for children's education. The shared use of facilities in some outward-looking schools is engaging and connecting communities and service organisations and the potential of Australian schools to operate as environments that are welcoming and supportive of the broader community is increasingly being recognised.

Nevertheless, research into how best to plan, design, govern and manage schools for shared use is limited, particularly with respect to the integration of policy and practice (Cleveland, 2016) and the implications associated with shared infrastructure for community engagement (McShane et al., 2012). More needs to be learned about successful experiences of developing, implementing, and sustaining shared facilities and extended services in schools.

Schools as Community Hubs

Schools play a fundamental role in society regarding knowledge transmission, skills acquisition, and introducing children and young people to social dynamics and community life (Biesta, 2015). For this reason, there is nothing new about schools developing strategies and programs to engage with families and community groups. Yet, different approaches and rationales may be behind the development of schools-community partnerships and community hubs, bringing challenges to defining what constitutes a school as community hub (SaCH). According to Black et al. (2011, p. 4), the development of these initiatives "has been characterised by a pervasive lack of clarity and a troubling lack of consensus about the definition, purposes, best practice implementation and even the terminology of extended service schooling". Dryfoos (2005, p. 8) also recognised the diversity of community-facing schools, suggesting that "one of the mantras of this emerging field is "no two alike"; each community school evolves according to the needs and resources of the population and the neighbourhood". Such views were corroborated by an interviewee in the Australian context who commented that relationships between school-based hub operations and infrastructure commonly results in no two hubs being alike:

It really depends on the school. So, you will have hubs that are basically a big room inside one of the [school] buildings. You have other hubs that have a dedicated building just for the hub, but on the school grounds. So, it really depends and varies.

In Australia, the term ‘school as community hub’ is widely used to indicate a spatial, educational, and social planning articulation (McShane et al., 2012). It should be noted that some schools may identify themselves as community hubs, but not necessarily refer to a specific infrastructural arrangement, instead denoting their relationships or programs that are shared with the community.

Infrastructure efficiency is also a governmental concern in the Australian context (McShane et al., 2012). Discourse persists about optimising investment by promoting multipurpose buildings on school sites to support community service provision. Such discourse is leading to action. For example, a recent Victorian government reform (2021) aims to provide a kindergarten on-site or next door to every new primary school that is built. This policy aims to support communities with a high proportion of young families and aid children’s transitions to school (Victorian School Building Authority, 2021).

While a growing number of schools have implemented operational adaptations to promote community use, there remains a lack of understanding about how school facility planning, and design can support shared use. As Matthews et al. (2020) noted, the school design should change when schools are open to the community, similarly with respect to shared governance and management. These challenges associated with sharing facilities were also identified in the latest audit from Infrastructure Australia (2019, p. 419), which stated that “the complexity of systems in place to enable shared use of space can also deter community members from engaging with schools”. New insights are needed into how some schools and partner organisations have overcome such hurdles and collaborated to mutual benefit.

The need for such information has been heightened by the COVID-19 pandemic. In Australia and other places around the world, the need for community service provision and support increased as the result of the pandemic. A Melbourne-based informant¹ described how school-based community hubs in their local area operated outside their normal physical locations during the extended periods of lockdown in the city during 2020 and 2021, highlighting the capacity of local service provision to help meet community needs, even at a time when hub spaces may have become unavailable to users:

By the time the first lockdown finished, there was a fair amount of work going on around connecting families ... playgroup activities that you could do in your house. The hubs that already had WhatsApp groups started catch-ups online. By the time the second lockdown came in there was a definite and clear shift to zoom playgroup, zoom English classes, the sorts of things where possible [online], augmented by materials or text messages ... but adults couldn’t return to the school grounds. [Instead], playgroup in the park, walking English classes, all sorts of things [were going on to keep people connected].

¹ Melbourne, Victoria experienced the world’s longest periods of lockdown during 2020 and 2021, isolating people to their homes and not allowing them to mix in shared spaces.

The Role of Community in the School Context

A range of perspectives exist on school-community relations, along with views about how communities may participate meaningfully and productively in the school context.

At one end of the spectrum, aspirations to improve students' learning outcomes through strengthening relationships between the school, home and community, may drive interest and action associated with the developing closer school-community relations. Such action may focus on coordination and collaboration between agencies and other service providers to deliver services to community members (Semmens & Stokes, 1997). Some critics of this approach point out that the work with the community in such instances may be guided by 'exogenous agendas' and defined without community input (Kerr et al., 2016). Such agendas may minimise the role of parents and community members, underestimating their value as resources for learning in the school context (Hayes & Chodkiewicz, 2006). An interviewee identified such a gap, lamenting the lack of opportunity for ongoing school-community relations once her children had grown up and left the school system. She said:

We've got the local primary school just around the corner. I was school council president. I have planted gardens. I was very involved. My kids are now at university, so I don't go there anymore ... There's no reason for me to go there. It's not a place that is relevant for me anymore ... For a school to effectively be operating as a community facility, I would hope that people in the broader community would see it as a place for them in whatever way that might be.

On the other side of the spectrum, 'endogenous agendas' may tend to be guided by the interests and needs of community members (Kerr et al., 2016). In this context, Black (2008) emphasised the role of the community not only as a recipient of programs and benefits but as protagonists of the educational process:

We need new models of schooling that recognise the future of children and young people is the responsibility of the whole community, and which form the basis of a social alliance for all young people to take an active—if not a leading—role in their community. (Black, 2008, p. 15)

Schools working under community-led integrated models may pursue more democratic outcomes regarding their relationship with the community, leading to potentially more transformative agendas (Black, 2008).

The literature also indicates that community perspectives have been largely overlooked in academic research about schools as community hubs, with research more likely to call on expert opinions (Kerr et al., 2016). Kerr et al. (2016) highlighted the need for future research to bring together professional and community perspectives to prevent disconnection between schools' efforts and community aspirations.

With an emphasis on infrastructure, this challenge was also highlighted by Coulston (2020, p. 41), who pointed out that "ongoing planning for school environments will need to consider a holistic, community-wide view through a considered approach to shared facilities". Again, future research will need to bridge these gaps and bring together the views of a variety of stakeholders to accurately identify the potential for

school as community hubs as integrated socio-spatial settings for whole community education, health, and wellbeing.

A Theoretical Framework to Investigate Schools

Space is a central feature of school-based community hubs. However, as Gruenewald (2003) suggested, the production of space, or place, has largely failed to be recognised for its influence on interactions between schooling and community life.

Since the mid-nineteenth century, sociologists and geographers have embraced new meanings regarding space and its relation to social theory. As Warf and Arias (2009, p. 3) pointed out, space was repositioned in some academic circles from being given to being produced, “calling attention to its role in the construction and transformation of social life and its deeply power-laden nature”.

One of the most prominent scholars in this field has been Henri Lefebvre. His widely cited theoretical perspective offers a research framework that according to Soja (2009, p. 20) provides a “more comprehensive and combinatorial mode of spatial thinking, one that built upon the traditional dualities [of physical and mental/social spaces]”.

Lefebvre: Understanding Space as a Social Production

In *The Production of Space*, Lefebvre (1991) revisited the concept of space throughout different philosophical traditions over time. Through his analysis, he concluded that most scholars have failed in understanding the nature of space, commonly reducing it to an empty abstraction, prior to real experience, which in some way can contain the material. He contended that such conceptualisation might result in compartmentalised views of space, translating into hegemonic ideas of space which prioritise dominant or mental space over physical or social space.

Lefebvre (1991) offered a theoretical perspective that acknowledges the connections between the physical and the social, defining his project as a way “to expose the actual production of space by bringing the various kinds of space and the modalities of their genesis together within a single theory” (p. 16). He suggested that “(social) space is a (social) production” (p. 26). This definition pursued a unitary theory of space, considering space as tridimensional. He proposed thinking about space as “the physical space (nature), mental space (formal abstractions about space), and social space (the space of human interaction)” (Merrifield, 2006, p. 104). These three elements correspondingly are known as the phenomenological dimensions of space: the lived space, conceived space, and perceived space. By bringing together these multiple aspects of space, Lefebvre aimed to understand space and its relations through the “dialectical character of their interaction” (Merrifield, 1993, p. 523).

This conceptual understanding of space highlights that space is a social product—the result of social action, practices, and relationships, and at the same time is part of them.

Informed by Lefebvre’s (1991) work, this PhD study looked to engage with schools as community hubs through a spatial lens, seeking to generate new insights into the development, implementation, and sustainability of SaCH.

Lefebvre’s Triad of Space

Lefebvre (1991) proposed a “conceptual triad”, formed by representations of space, spatial practices, and spaces of representation,² to analyse spatial interactions by “exposing and decoding both visible and invisible processes and practices” (Buser, 2012, p. 284). Figure 1 shows how Lefebvre’s triad has been adapted to make sense of the phenomenological dimensions of space associated with SaCHs.

By way of explanation, the spaces of representation are lived spaces, spaces as directly lived or experienced in everyday life, a dimension that shapes “the spaces of inhabitants and users” (Lefebvre, 1991, p. 39). Spatial practice refers to the material experience and people’s perception of space, which is “lived directly before it is conceptualized” (p. 34). Finally, the representations of space are identified as conceived or conceptualised space which constitutes a form of domination. It is related to knowledge, signs and codes and linked to professionals’ and experts’ voices in different fields.

As suggested by Thomson and Hall (2017, p. 148), using the notion of trialectical space as an “approach to everyday life as spatially-temporally experienced and produced” might be helpful not only to understand schools from an official or expert perspective, but to make the realities of the schools and their inhabitants visible. This approach to studying schools may be valuable in revealing why things are as they are, offering “a potential explanatory power beyond the descriptive” (Thomson & Hall, 2017, p. 150).

Applying the Triad of Space as a Theoretical Framework for SaCH Research

The concept of *production* may be fundamental to understanding how schools as community hubs emerge from the dialectical interaction of material, symbolic, and lived aspects. In the case of SaCH, the material is represented by the physical settings that are used to welcome students, staff, and the community into the school space.

² In the “Production of Space” (Lefebvre, 1991), Nicholson-Smith used the term “Representational spaces” to refer to the “lived spaces”; however, (Soja, 1996) asserts that “Spaces of representation” is the most accurate term following the French.

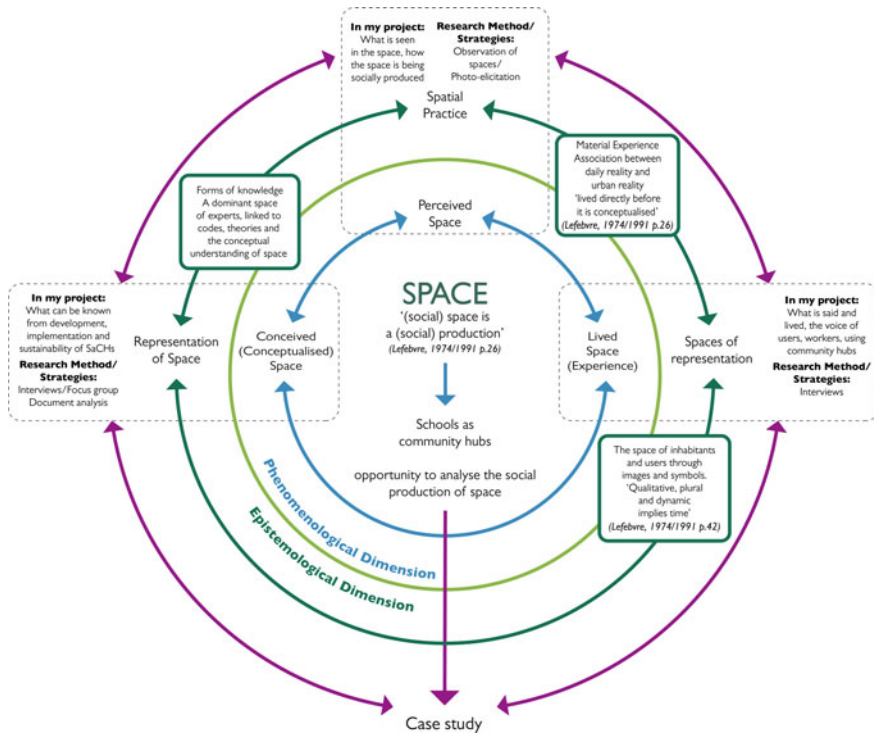


Fig. 1 Lefebvre’s triad of space adapted as a theoretical framework for schools as community hubs (SaCH) research (Diagram by the author, <https://doi.org/10.26188/19316633>)

The symbolic aspects of the production may contain the ideal representations of the material forms. In the context of SaCH, this dimension contains architectural briefs and drawings, policy documents, agreements and other forms of conceptualisation that tend to dominate the discourses of space. Both dimensions represent the historic duality of space i.e., the representations of the theory and practice that Lefebvre intended to surpass with his trialectical conception of space. By adding the social space as a primary aspect of the production, Lefebvre (1991) acknowledged that every society, a mode of production itself, will produce its own space. This understanding makes sense in the context of Dryfoos’ (2005, p. 8) mantra of “no two alike” because every SaCH will produce their practice according to the symbolisms, codes, and meanings that the inhabitants experience as part of the space.

The introduction of this third element to the analysis is relevant in the context of this research because it helps address a vital aspect of the research gap: a lack of empirical research related to the experience of SaCH users.

Figure 1 shows how the phenomenological and epistemological dimensions proposed by Lefebvre are understood and how each dimension aligns with the context of schools as community hubs and the proposed research methodology. In this sense, the purpose of using Lefebvre’s understanding of space is twofold.

Firstly, this research methodology highlights the impact of spatialised social interactions. Secondly, ideas about the social production of space can help shape a data triangulation process to include the perspectives of those involved in conceiving, delivering, operating, and using schools as community hubs.

The PhD project being undertaken aims to investigate how the interplay of different factors may impact the development, implementation, and sustainability of school-based community hubs. The research will engage through Lefebvre's triad of space with case study schools to capture not only the voices of experts regarding the initial development of SaCH (conceived space), but also observe the daily reality of SaCH (perceived space) and how users are experiencing these spaces (lived experience). In acknowledging these three dimensions, the research recognises the different perspectives on how space may shape the experience of developing, implementing, and sustaining SaCH.

Use of Lefebvre's Conceptual Triad in Built Environments Research

Lefebvre's conceptual triad has been applied in empirical research related to this field of inquiry. For instance, Benade (2016) applied Lefebvre's thinking in an investigation of flexible learning spaces associated with innovative teaching and learning practices. His study utilised the conceptual triad as a theoretical framework to understand the "confluence of practice and space [that] goes beyond mere behavioural observation, or chronological analysis, instead inviting engagement at a deeper, conceptual or theoretical level" (p. 799). For Benade (2016), representations of space included the notions of designers and architects about educational buildings, while spatial practice was related to how schools implement and use their flexible learning spaces.

Another example from built environments research investigated social housing using Lefebvre's triad as a methodological framework (Baydar et al., 2016). Baydar et al. (2016) organised their data in three categories; implementations, perceptions and lived experience, in keeping with Lefebvre spatial triad. Adopting this model allowed them to articulate everyday practices, administrative decisions and perceptions, and to understand decision making processes in environmental and social planning.

Analysis of the Theoretical Framework in Use

Application of the framework to the SaCH context is illustrated below using an emerging theme, welcoming spaces, from interview data collected during the first phase of the PhD project upon which this chapter is based. Thirteen interviews were conducted with expert informants familiar with the development, implementation,

and ongoing operation of SaCHs in the Australian states of Victoria, South Australia, and Queensland. Interviewees included architects, government representatives in school planning and infrastructure, council representatives, non-government organisation personnel (i.e., school partner organisations), school principals, and SaCH coordinators.

Interview analysis explored the relationships between the representations of space and spaces of representation in SaCHs. A subsequent phase of fieldwork will include case studies in three schools operating as community hubs, where the focus will also include spatial practices, as may be observed and recorded on site.

Welcoming Spaces

Interviews began by asking participants to define the characteristics of a school as a community hub. Participants told of their lived experiences, describing varied perspectives, approaches, and aspirations. A common theme that emerged related schools as *welcoming spaces*, open to sharing with the community. One interviewee commented:

The design has to be very welcoming for families that feel disconnected with society. So, it needs to have ... a sense of being a little bit like a cafe ... a sense of being like a home ... a sense of flowing to outside spaces. So, I think all those things that are familiar to a home need to be in this space within the school, where the community can come and meet.

In terms of the design, a singular entrance was a feature mentioned that might help produce this effect. In the words of a school planner: “I think that in the design you must have one front door. I think that the design needs to show that the school staff are in partnership with the staff of the other services”. From the service delivery point of view, a soft entry approach was found to complement this design concept. Another school planner suggested that “soft entry is very much about making it a warm and welcoming environment for everybody ... it’s about relationship building”.

While the idea of schools as welcoming spaces for communities was found to be common to the discourse associated with conceived space, the interviews indicated that the implementation of a single-entry point was not exempt from contradictions. One school planner noted that, “just because things are close together doesn’t necessarily mean that they are integrated”, revealing that even though some schools are sharing a physical space with a community facility, it doesn’t necessarily mean they are collaborating towards a shared vision.

Lefebvre (1991, p. 365) described a *contradiction of space* as a “conflict between socio-political interest and forces” as becomes effective in space. Through analysing interviewees’ school site experiences, tensions between a desire for schools to embrace the community and the design of school facilities emerged, particularly with respect to safety.

It was found that while schools are trying to provide friendly spaces for community use, are having to do so while dealing with policies and regulations around security and the need to ensure the safety of students and staff.

Some interviewees pointed out that improved school design was the most apparent strategy by which to overcome such a contradiction of space. Some suggested that creating a separate entrance for community use was an alternative solution. Yet, others suggested that such design features may contradict the real purpose of sharing spaces, and that the contradiction of the space might be a barrier to social relations and community participation. In this regard, an architect offered the following perspective:

We take a lot of cues from body language, and we can take cues from buildings. If we see a site ... just lots of fences, lots of barriers ... in the messages you know it is somebody else's space: please don't come too close, you're not welcome.

In addition to concerns for safety, the interviews also revealed a tension around ownership, power, and genuine interest in turning schools into a more democratic spaces with communities—highlighting further contradictions of space. To this end, Hayes and Chodkiewicz (2006, p. 17) emphasised that sharing “requires a fundamental reconceptualization of how schools operate within their local communities”. One example of this change of mindset was reflected in the following testimony from a principal who was promoting a more democratic approach in their school as a community hub:

We have a productive garden and we have made the decision to remove the fencing from the productive garden so it can become community use. We are encouraging that ... I don't know why they fence it ... most of the site is not fenced ... We have a very strong vision and belief around the fact that you don't keep people safe by keeping people out, you know. That's not a safe way to operate. That's just people operating around the edges, you know, in the grey area. So, we're more about, OK, well, we've got a cafe, we've got all these beautiful spaces, how do we bring people in?

As this short discussion illustrates, the research framework can help draw attention to key information and insights associated with the multiple types of space that Lefebvre identified (representations of space, spatial practices, and representational space) and its production—all crucial to understanding the spatial relationships shaping school-based community hubs.

Conclusion

This chapter provided an overview of the theoretical and methodological framing of a PhD project being undertaken as part of the *Building Connections: Schools as Community Hubs* Australian Research Council (ARC) Linkage project.

The chapter presented a research framework for investigating how the interplay of different factors may impact the development, implementation, and sustainability of SaCHs. Application of the framework was briefly illustrated using interview data collected during the initial phase of the research.

Shortly, the framework will be applied to case studies to be undertaken in schools operating as community hubs. These will examine; representations of space, as illustrated by policy documents, reports, design guidelines, architectural briefs, and as reported by those involved in developing schools as community hubs; spatial practices, as observed within case study settings; and spaces of representation, as experienced by those working in or with school-based community hubs. Altogether, the framework will guide attention to the socio-material relations at play within schools operating as community hubs, helping to make connections between the built environment and inhabitants' practices, activities and behaviours. The framework will aid inquiry into the lived experiences of those associated with conceiving, delivering, operating, and using schools as community hubs, privileging the voices of policymakers, planners, designers, operators, and users.

It is also hoped that others interested in school-community relations and other types of community development projects will adopt a spatial perspective and use the proposed framework that has been adapted from the work of Lefebvre (1991) to attend to how the production of space may influence the objectives, practices and lived experiences of those involved.

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An Evaluation Framework for Schools as Community Hubs



Janet M. Clinton , Ruth Aston , and Hayley Paproth 

Abstract The Building Connections: Schools as Community Hubs project is concerned with increasing social value within communities through understanding the development, merit, worth and significance of schools that engage with the community. This process involves identifying the multiple components of such schools developed with diverse target groups across a range of community settings. In this context, assessing the program implementation process is essential to capturing and documenting the realities of a school's planning, development, and implementation as a community hub. This chapter outlines an evaluation framework generated to document the development and implementation of community hub schools, as well as their effectiveness and efficiency. It argues that the evaluation process is essential for initial development, ongoing sustainability, and future scaling. The proposed framework builds on an adapted form of the Centers for Disease Control (CDC) Framework for Program Evaluation (2011). This CDC Framework provides an overarching theoretical evaluation framework that facilitates collaboration with all stakeholders and encourages the development of a learning environment and feedback as a part of the evaluation. The model emphasises the process of engagement and outcomes, and seeks to describe the realities of implementation in complex contexts to explain outcomes.

Keywords Schools as community hubs · Evaluation · Community benefit · Evaluation framework

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Introduction

Schools as Community Hubs (SaCH) aim to address some of society's most complex, complicated, or wicked problems (Fry, 2019). SaCH¹ are a type of school-community partnership that aim to improve outcomes in the school and community (Jacobson, 2016; Maier et al., 2017), and are often defined as:

... schools which act as a focal point for a range of family, community and health services for their students, families, staff and the wider population. They are likely to have community facilities located on site and to offer community access throughout the school day and out of school hours. They are also likely to work with local partners to deliver services such as childcare, health and social services, adult education and family learning, sports or arts activities. (Dyson et al., 2002, p. iv)

Each SaCH is unique, due to the local context and adaptations over time to respond to community needs. However, in Australia, they typically involve the co-location of facilities or services on a school site and/or the sharing of school facilities with government agencies, non-government organisations (NGOs), service providers and the community, allowing for the offering of services beyond the typical capacity of schools (Black et al., 2010; Cleveland, 2016).

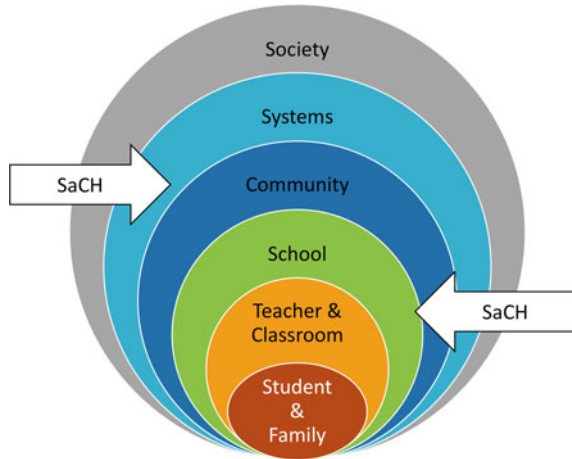
SaCH aim to address some of society's most complex, or 'wicked', problems (Fry, 2019), such as inequities in social, economic, and educational outcomes. Trying to address wicked problems through individual programs or initiatives has demonstrated limited success (Hanleybrown et al., 2012; The World Bank, 2020). There is an increasing acknowledgement that working collectively and collaboratively to address the complex underlying causes resulting in inequalities is likely to be the only way to achieve lasting impact (Byron, 2010; Fry, 2019; Kania & Kramer, 2011). SaCH are one such attempt to implement a Collective Impact approach, allowing for the integration of services in one location targeted to the community's needs (Logan Together, 2018; Moore, 2014). Demonstrating the merit and worth of community hubs is challenging, as generalisable and reproducible population evidence for hubs has yet to be realised. Furthermore, evaluating these initiatives is a complex and contextually based concern.

Policies, resourcing, and strategy building cannot proceed on illusions and anecdotal evidence. Those who advocate for and see merit in SaCH are required to provide evidence for or against the effect on student outcomes and benefits for the community at large. In some ways evaluating SaCH is a 'wicked problem.'

While there is overwhelming agreement in the literature on the importance of evaluating SaCH, there is some contention about the nature of what constitutes credible evidence. For example, evidence suggests that community engagement can generally impact the quality of life or lifelong engagement in education. But assessing that impact is difficult when approaches to community engagement vary widely (Bolam

¹ SaCH are known by various names in Australia and overseas, including community schools, extended-service schools, full-service schools, and wraparound schools.

Fig. 1 The education ecosystem (Image by the authors)



et al., 2006; Milton et al., 2012; Popay, 2006). The literature has focused on a wide range of interventions, with tremendous diversity in terms of definitions of community engagement and evaluative methods. However, there is no substantive evidence of positive impacts on populations in broad areas of health, education, and social development measures. Thus, there are important questions related to the nature of evaluation, assessment, implementation, and what constitutes credible evidence for SaCH.

There are numerous challenges to understanding the implementation and impact of SaCH. For example, these challenges include the duration of initiatives, levels of collaboration, varying levels of implementation across different contexts and initiatives, and the collection of information about implementation. Similarly, in the evaluation realm, understanding the indicators of success to determine attribution or contribution pragmatically is challenging given the variable stakeholders in the school context. It is vital to evaluate success across these various perspectives (Fig. 1) of the complex education ecosystem in which SaCH are located.

SaCH as Place-Based Initiatives

To assist in understanding the place and worth of evaluation and the development of evaluation frameworks, it is helpful to view the context of SaCH as place-based initiatives. The purpose of SaCH is to engage other stakeholders in this place called 'school.' Many different terms are in the literature for place-based approaches,

including area-based approaches, comprehensive community initiatives, and collective impact initiatives (Bellefontaine & Wisener, 2011). Various definitions of place-based approaches have also been offered (Bellefontaine & Wisener, 2011; Moore & Fry, 2011), and they can be broadly defined as “stakeholders engaging in a collaborative process to address issues as they are experienced within a geographic space, be it a neighbourhood, a region or an ecosystem” (Bellefontaine & Wisener, 2011).

Recently, a particular form of place-based approach that focuses on results and shared effort between various groups has emerged. The idea is that groups within the community come together to adopt a collective impact to ensure impact on the whole community. Collective Impact (CI) initiatives aim to create independent but often overlapping and related solutions to major social problems (Kania & Kramer, 2011). Rather than working in isolation, and sometimes at cross purposes, in CI initiatives, groups of key stakeholders work together with shared agendas and measurement systems, undertake “mutually reinforcing activities” (p. 39) and ongoing communication, and have a specifically created “backbone support organisation” (p. 39) that coordinates their activities.

The impact of these initiatives can be evaluated by measuring performance or outcomes across multiple organisations. The developed measures may be organisation-specific but can become part of a common reporting platform, so each organisation’s performance and outcomes can be benchmarked and compared across participating bodies. All participating bodies can use common indicators and data collection methods, and extensive training and support are provided to enable the collection of high-quality data and interpretations (Kramer, Parkhurst & Vaidyanathan, 2009). Seeing SaCH as a structure that is designed as a collective impact in context provides an opportunity to consider evaluation for the whole organisation and assist in orchestrating an evaluative process.

Considering place-based initiatives and collective impact allows the application of simple rules for evaluation. These rules use evaluation to enable rather than limit strategic learning and planning. Figure 2 provides a ‘conceptual cube’ that shows the multi-dimensional foundations for evaluating place-based delivery approaches highlighting the relationship of growth over time, the context and the different phases of implementation (Dart, 2018, p. 2).

Fry (2019, p. 55) used evidence to suggest that there are four central practices that are interconnected and interdependent that need to be in place for place-based initiatives:

- **Collaborate.** Relate, connect and collaborate across sectors.
- **Community engagement.** Engage and empower the community.
- **Holistic thinking.** Think and act holistically.
- **Adaptation.** Take an adaptive and responsive approach.

Similar to the Dart model, Fry suggests that the maturity of the development must be considered in the evaluation process. Considering SaCH as place-based initiatives that are built on the premise of collective impact provides the backdrop to consider an approach to evaluation.

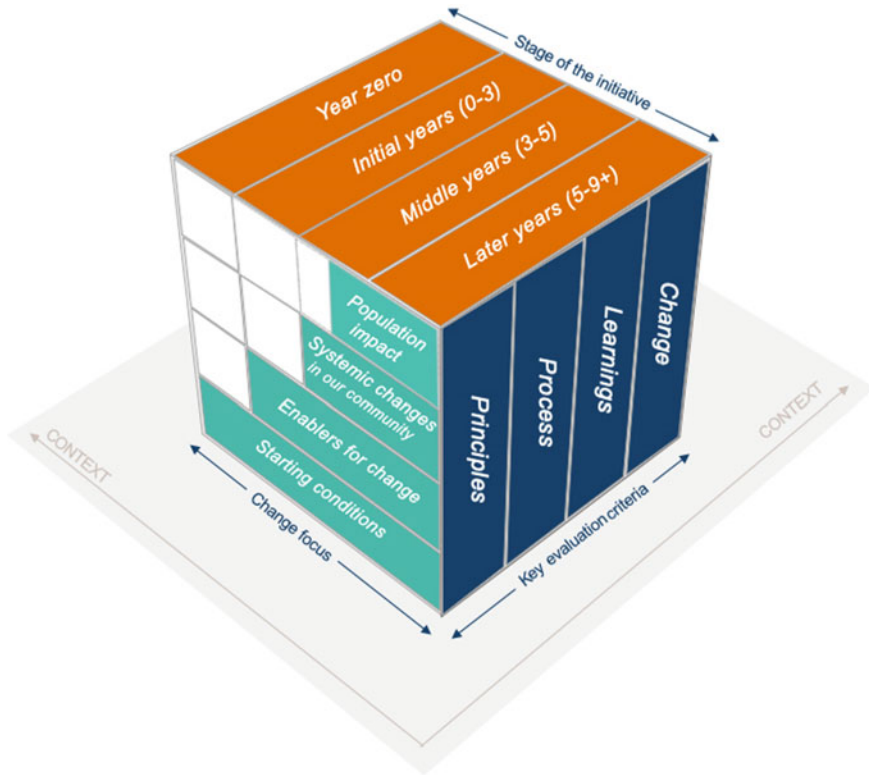


Fig. 2 Foundations of place-based initiatives over time (Dart, 2018, p. 2)

SaCH and Evaluation

Evaluations conducted within complex contexts concern multiple interconnected elements such as policy, guidelines, organisational responsibilities, people, and resources. Therefore, evaluations can generate credible assessments of success. The contention is that utilising the embedded evaluation process can yield the evidence needed to support the progress towards related goals and the sustainability of projects by ensuring the flow and use of evaluative information (Clinton, 2014). The claim is that while complex evaluation must be embedded in the community and hence a part of the education ecosystem from the 'get-go,' then these initiatives have the greatest probability of impact. This is the challenge, given the nature of schools and the education system.

Evaluations claim a particular program or other entity's "value, merit, worth, significance, or quality" (Fournier, 2005, pp. 139–140). Evaluation can help communities, policymakers, program designers, and funders determine which interventions work best and under what conditions and identify the innovations that should be

stopped, modified, scaled up or replicated in other communities (Lee & Chavis, 2015). The Evaluation discipline also highlights the importance of testing whether theories and approaches are working and building the evidence base for what works in the context of the education ecosystem.

Evaluations can measure performance by, for example, monitoring inputs, activities, and outputs. They can also measure outcomes within a given period and evaluate impact, such as the long-term changes attributable to the school and community activities (Kramer, Parkhurst & Vaidyanathan, 2009). There are several different types of evaluation. For example, a needs analysis is used to learn what the people or communities might need in general or concerning a specific issue. Process evaluation or formative evaluation tells how the project is operating, whether it is being implemented the way it was planned, and whether problems in implementation have emerged. Finally, an outcome evaluation examines the extent to which a project has achieved the outcomes set at the outset, examines the overall effectiveness and impact of a project and its quality, and can provide evidence about the cost–benefit, effectiveness, or value for investment.

While many evaluation approaches exist, it is suggested that no one method is best for all situations. Instead, the best approach varies according to factors such as fit with fundamental values, the intent of the evaluation, the nature of critical stakeholders, and available resources. Regardless of the approach, there is a large degree of overlap in the suggested purposes and methods. The steps relating to any particular approach will differ in the nature of the methods and tasks related to each step. Many descriptions of the steps, emphasise their iterative nature and suggest that a particular order is not always followed.

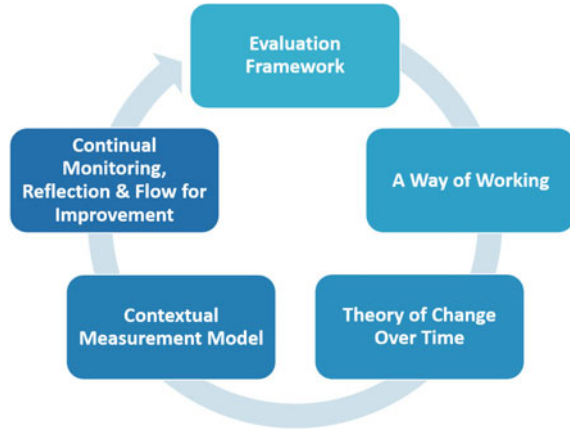
Evaluation frameworks facilitate a systematic approach to evaluation and enable multiple stakeholders to understand the fit between the program and the evaluation process while assisting in identifying and agreeing on appropriate objectives and approaches. Therefore, an evaluation framework is suggested to guide a way of working and an implementation framework or model to specify the process and assessment activity required to access evaluative information (Arbour, 2020). Figure 3 outlines an iterative process that enables questions about what we should measure and how we might understand the impact across the education ecosystem.

An Evaluation Framework for SaCH

An evaluation framework can guide a way of working, and it must meet the evaluation standards, support the development of rigorous and develop a methodology that is fit for purpose, and allow for the development and implementation of evaluation and assessment activities. Furthermore, every step of this process needs to be transparent and reproducible.

Schools are considered participatory and often utilise existing community strengths, groups, and relationships to increase engagement and action. SaCH aims for schools to partner with communities in shared design and maximise outcomes’

Fig. 3 A process for embedding an evaluation framework (Diagram by the authors)



accountability (Allen-keeling, 2020). This may involve utilising and valuing local and cultural knowledge in the evaluation process and engaging with community leaders, citizens, and local groups about the findings and the recommended actions. There can also be greater and faster learning from evaluations when more of the community actively engages in a shared evaluation approach.

Like many organisations, schools are awash with data. The issue is how to interpret, use and find value and purpose in the data. Thus, the claim is that what is needed is an evaluative framework to support the interpretation and flow of information. That is, not using evaluation to collect more data but to support developing and enabling all participants within the organisation to think and act evaluatively (Buckley et al., 2015).

The CDC evaluation framework meets all the requirements and yet allows organisations to build the context into the framework to ensure that the community’s view is represented, and that the evaluation process is fit for purpose. The diagram below (Fig. 4) sets the evaluation framework within a community’s worldview and suggests the importance of continuous consultation and feedback.

Several components of this framework engage stakeholders, consider the program context and theory of action, focus on appropriate methods, gather credible evidence, justify conclusions, and finally utilise lessons learned. The diagram above illustrates this process. The steps in this model allow for the development of evaluative approaches, measurements, infrastructure, information management process, and importantly make interpretations for the translation of results to all corners of the community.

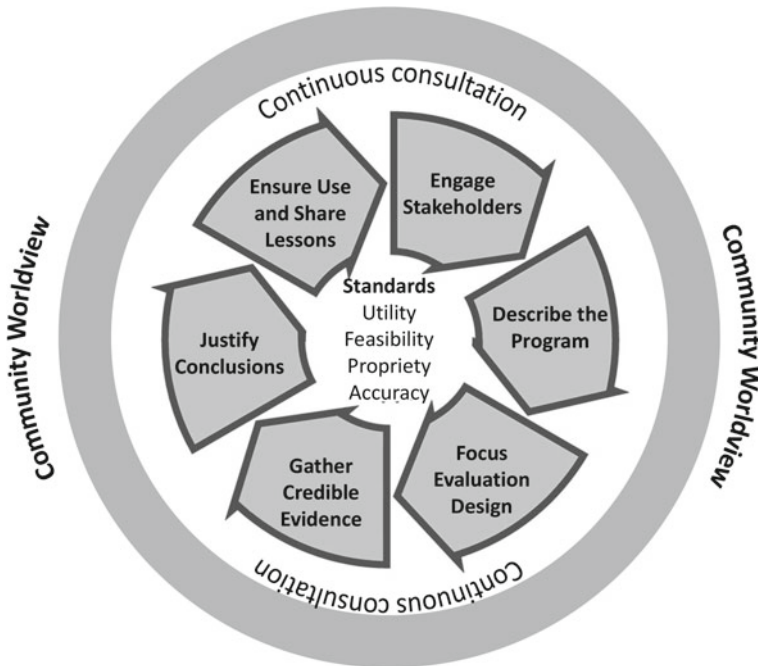


Fig. 4 CDC&P Framework for Public Health Evaluation (2000) (Figure by authors)

Stakeholders Engagement

Determining a view of success and being able to articulate the key factors that influence and contribute to that success is what evaluation is all about. It requires an evaluation team to demonstrate evaluative thinking and assist in interpreting evidence leading to action. The concern is that the community participants, policymakers, researchers, educators, practitioners, urban designers and planners are likely to have varying views of success and hence require different answers and sometimes different data. There can also be much variance in what is considered credible evidence and stakeholders may also vary in their view of success. For example, some may focus on the economic impact of student outcomes and others on engagement in the activities. Considering these multiple notions of success is critical for a thriving and flourishing SaCH.

This initial phase fosters transparency about the evaluation’s purpose and identifies the audience of the evaluation. Most significant, it clarifies the primary and secondary intended users. In relation to place-based initiatives for SaCH, conducting a stakeholder analysis within the education ecosystem is essential to build the design phase, consider school and community needs, and ensure the community, physical and infrastructure, and organisational strengths are identified and built upon. There needs to be early identification of the many different audiences and stakeholders

in schools as community hubs. It is critical to understand the needs of those stakeholders—the policymakers, the providers, the participants, the researchers—and their view of success and the information required to determine ongoing engagement.

Program Description

This phase provides the opportunity to build a shared understanding of the theory of change underlying the initiative. This will often include the development of a logic model and a description of the longitudinal stages of development of the program. Program Logics are dynamic or living documents used to help guide expectations and what needs to be measured (Funnell, 2000).

Developing a program logic requires working through the SaCH theory of change or action by identifying the links between the resources available within the program, the activities that were undertaken, the outputs, and the short, intermediate, and long-term outcomes. Program logic recognises the relationships between different levels of the program and the multiple stakeholders and accommodates the complexity of implementation (Funnell, 1997, 2000). While the development of program logic is often a collaborative and interactive process comprising representatives of all stakeholders, the use of existing evidence is also often brought to the fore. This approach enables stakeholders to gain ownership of the program, work together to understand the activities undertaken and the resources available within a program, and consider the factors that influence outcomes (Funnell, 1997, 2000). Developing a program logic with hub stakeholders is a valuable way to work with them to clarify the intended outcomes and key evaluation questions.

Evaluation Focus

This phase provides an opportunity to narrow and prioritise outcomes for measurement. This step entails considering ‘the what and the how’ of the various parts of the logic model that can be measured and in what order. Working collaboratively to prioritise the evaluation based on a shared understanding of the theory of change identified in the logic model is essential.

It simply is not possible—or useful—for an evaluation to try to answer all questions for all stakeholders. Instead, there must be a focus and debate about priorities. Focusing on the evaluation design means undertaking planning about where the evaluation is headed and what steps will be taken to get there. For example, after data collection begins, changing procedures might be difficult or impossible, even if better methods become apparent. A thorough plan anticipates intended uses and creates an evaluation strategy that has the greatest chance of being effective. Among the items to consider when focusing on an evaluation are its purpose, users, uses, questions, methods, and the agreements that summarise roles, responsibilities, budgets, and

deliverables for those who will conduct the evaluation. Establishing and prioritising evaluation questions are key components. These questions relate to the development of the program logic as determined by the stakeholders. At this juncture, the focus shifts to models or approaches to evaluation activity. Paproth et al. (2023) consider some key factors in understanding success and, in some cases, the factors that will mediate success along the implementation path, including thinking and acting evaluatively. Cleveland et al. (2022) have developed a framework to support the development, implementation and sustainability of SaCH. While providing insights into the key factors that need to be considered in evaluation, the model demonstrates the complicated and complex nature of SaCH. Each element can offer key questions for an evaluation of the effectiveness and efficiency of the SaCH.

In addition, Clinton (2014) demonstrated key components in understanding the impact and sustainability of key long-term initiatives. Across several evaluations utilising structural equation modelling, Clinton illustrated six factors (Fig. 5) that causally influence the success of programs or initiatives. For example, what level of implementation of any service, such as the number of children that use a swimming pool on a school campus, will influence the degree of program success. Similarly, it is important to consider levels of collaboration as these are essential for successful place-based initiatives that desire a collective impact. Therefore, it is argued that these components must be assessed in any evaluation.

Without community engagement, much of the work of community hubs can fall short of desired impact (Preskill, 2017). Ensuring a continuous feedback loop utilising rich stories that bring the key stakeholders together can enhance ongoing engagement in SaCH. Similarly, mapping implementation and adaptation across time will allow for a longitudinal consideration of the merit and worth of the hub’s programs (Fernandez et al., 2019).

Understanding the value of long-term participation is critical for success. This notion is developed in the corporate world via Customer Lifetime Value, which is simply the customer’s lifetime value as measured by the number of transactions over

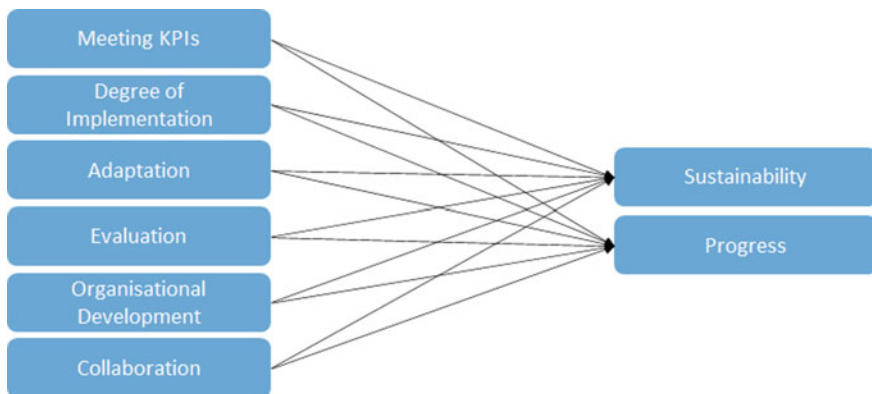


Fig. 5 Key Factors relating to successful program development (Image by lead author)

a period of time. This allows an organisation to predict the value for participants and subsequently consider where effort should be placed. For SaCH, this approach to valuing is much more appropriate and beneficial than single measures over time. These factors would form a useful starting place for developing a measurement model of indicators for monitoring influencing factors and outcomes.

Gathering Credible Evidence

This step puts the evaluation plan into action by considering how credible evidence will be gathered. Credible data is the basis of a good evaluation. This step covers the plan for the evaluation and monitoring program, the intended uses, and feasibility issues. This means thinking broadly about what counts as “evidence”—it could, for example, be the results of a formal experiment or a set of systematic observations. It depends on the questions posed and what kind of information the stakeholders will find credible.

This phase identifies evaluation indicators and performance measures, data sources and methods, as well as roles and responsibilities. There are several mediating short, medium, and long-term factors that require the administration of outcome measures. These need to be monitored through the life cycle of the SaCH initiative. The methods must be appropriate for the school and community. A mixed-methods approach (quantitative and qualitative) is often conducted to gather information to determine the level of implementation and impact.

In this phase, methods employed, and data gathered must be fit for purpose and hence must be seen as believable, trustworthy, and relevant by all stakeholders. This relates to the evaluation standards as illustrated by the suggested evaluation model, and further is at the heart of Fry (2019) and Dart models (2018). This step entails considering collaboratively what really counts as ‘credible evidence.’

Justifying Conclusions

The evidence collected in an evaluation must be analysed, interpreted, and triangulated. The interpretation of data has to be considered from several different stakeholder and systems perspectives to reach justified judgments. These judgments relate to the evidence gathered and are aligned with benchmarks set by the stakeholders. According to Milstein and Wetterhall (2000), this involves (a) analysis to synthesise the findings, (b) interpretation to determine what those findings mean, (c) judgments to determine how the findings should be valued based on the selected indicators or benchmarks set, and (d) recommendations to determine what claims, if any, are indicated. The power of evaluation allows an understanding of the lifetime value of

exposure to SaCH. Such processes support the development of a system for continuous quality improvement and sharing of information for learning is a powerful vehicle for the sustainability and scale of SaCH.

Ensure Use and Share Lessons Learned

The last step is perhaps the most important—to ensure the use of the evaluation and share its lessons learned. The evaluation framework needs to describe plans for using evaluation results and disseminating findings. Clear, specific plans for evaluation use should be discussed from the beginning. This could include a broad overview of how findings are to be used and more detailed information about the intended methods for sharing results with stakeholders. This is a critical and often neglected section of the evaluation plan.

What is essential here is articulating the planned outcomes over time and then considering the levels of evidence required to evaluate implementation fidelity and adaptation that leads to considering sustainability and scale. These are dynamic elements that will change over time, and it is this change that needs to be considered and built into an evaluation plan. Ensuring that the original intention of the SaCH is present but considering adaptation and organisational development along the way is essential but also needs evaluating as part of the process.

Evaluations are undertaken to adjudge and improve the effectiveness of interventions. Some activities that promote use and dissemination include designing the evaluation from the start to achieve intended uses, preparing stakeholders for eventual use, interpretations, and adaptations, providing continuous feedback to stakeholders, scheduling follow-up meetings with intended users to facilitate the transfer of conclusions into appropriate actions or decisions, and disseminating lessons to those who have a need or a right to know or an interest in the project.

Recognising the Role of the Evaluation Standards as Key Values in Evaluating SaCH

The international program evaluation standards from the Joint Committee on Standards for Education Evaluation (Yarbrough et al., 2010) provide values or guidelines to follow when developing evaluation plans (see Table 1). These standards are designed to ensure the integrity and worth of the evaluation. The evaluation standards also provide indicators to judge the quality of an evaluation system.

Many organisations and evaluation associations have contextually based guidelines that address issues of quality and ethics together. Hence, there are multiple resources available. In this case, the CDC framework employs the Standards for

Table 1 The International Program Evaluation Standards from the Joint Committee on Standards for Education Evaluation (Yarbrough et al., 2010)

International Standards	Description
Utility Standards	The seven utility standards ensure that the information needs of evaluation users are satisfied
Feasibility Standards	The three feasibility standards ensure that the evaluation is viable and pragmatic. They emphasise that the evaluation should employ practical, nondisruptive procedures
Propriety Standards	The eight propriety standards ensure that the evaluation is ethical (i.e., conducted with regard for the rights and interests of those involved and affected)
Accuracy Standards	The 12 accuracy standards ensure that the evaluation produces findings that are considered correct. They include items such as describing the program and its context, articulating in detail the purpose and methods of the evaluation

Program Evaluation (2010): utility, feasibility, propriety, and accuracy. There is also the addition of evaluation accountability.

Final Word

Ensuring that the discipline of evaluation is front and centre when developing SaCH is core to the success of SaCH interventions. The chapter has presented an overview of evaluation as a support vehicle for the successful implementation, improvement, and scalability of great ideas. Evaluation not only provides an understanding of what works (or not) but also provides a mechanism to support the ongoing sustainability of organisational processes and infrastructures—as well as increasing the probability of sustainable impact.

The suggestion is that evaluation activity should provide ways to continuously document the work of evaluation to understand the nature of value and answer not only questions of what worked and for whom, in what circumstances, but also what comes next. Stakeholders want to know what was done, what was achieved and understand the value relative to investment.

We have argued that to achieve this impact, there needs to be a shift from a traditional focus of measuring change and not seeking a linear cause and effect relationship. Gates and Fils-Aime (2022) suggests “reshaping evaluation from rendering discrete assessments of performance to facilitating ongoing evaluative processes and deliberation amongst those involved and affected about the value of what they are up to and what should be done next.” This shift in mindset to embed evaluative thinking and evaluative activity into a system is a continuous process that requires maintenance and reflection.

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The Role of Evaluative Thinking in the Success of Schools as Community Hubs



Hayley Paproth , Janet M. Clinton , and Ruth Aston 

Abstract Evaluative thinking (ET) is a construct of growing interest in education research due to its potential influence on the implementation of strategies, initiatives, and interventions. It is of particular importance in evidence-based practice. ET is often associated with the use of data, evidence-based decision making, and conducting evaluation activities. Research in this field indicates that an organisation and staff that think and act evaluatively are more likely to interrogate outcomes, question assumptions, and adapt program design and delivery. Given the nature and organisational structures of Schools as Community Hubs (SaCH) it is suggested that ET is an essential factor in the success of SaCH. This chapter will explore the research base regarding ET and the potential for ET to influence the success of SaCH.

Keywords Schools as community hubs · Evaluation · Evaluative thinking · Collective impact

Introduction

Although the evidence base regarding the outcomes of Schools as Community Hubs (SaCH) in Australia is still limited, there is growing research around the factors necessary for success (Maier et al., 2018). An example of this is the Building Connections ‘How to Hub Australia’ framework which lists 12 important factors to consider in the development and implementation of SaCH (Cleveland et al., 2022). ‘Evaluation and evidence’ is identified as one of the important factors in this framework, as well as by others working in the field (Carpenter et al., 2011; Department of Education

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and Child Development [SA], 2017). However, this extends beyond just evaluation, to the need for SaCH to be learning organisations that continually reflect, adapt, and progress, with an organisation, leaders and staff that think and act evaluatively, as detailed by Clinton et al. (2023) in this edited book. While the evidence is currently limited, evaluative thinking (ET) is starting to emerge as a key factor that assists organisations such as schools and SaCH to be learning organisations, prioritising evaluation and evidence-based decision making (Kuji-Shikatani et al., 2015; Malloy et al., 2016) The focus of this chapter, therefore, is to synthesise the current literature on ET and apply it to the context of SaCH.

Evaluative Thinking

ET is an area of increasing interest in the evaluation literature, as it is theorised to be a crucial factor in the successful implementation and achievement of intended outcomes for initiatives and organisations (Earl & Timperley, 2015; Lu et al., 2019). Due to its emerging nature, the empirical research base is small but growing. Existing studies suggest that ET explains some of the positive impacts of programs and initiatives (Clinton, 2014; Grinó et al., 2014; Wyatt, 2017), demonstrating that this area is worthy of increased research focus.

What is Evaluative Thinking?

ET, which has been described as “a habit of mind, motivated by a never-satiated desire for evidence” (Buckley, n.d., para. 2), is the set of skills and mindsets necessary for a person or organisation to engage in and realise the benefits of evaluation (Buckley et al., 2015; Earl & Timperley, 2015; Grinó et al., 2014). It is closely linked to critical thinking as well as reflective practices. Associated behaviours and skills include data collection and analysis, systematic questioning, problem-solving, reflecting, and making evidence-based decisions (Fierro et al., 2018; Vo, 2013). A belief in the value of evaluation and evidence, inquisitiveness, a willingness to test assumptions, and being open to change are some of the mindsets and attitudes associated with ET (Archibald et al., 2011; Vo et al., 2018).

The debate in the literature regarding exactly what ET entails is ongoing, and there is not yet one widely accepted definition (McIntosh et al., 2020; Patton, 2018). However, one definition cited by a growing number of authors (see King, 2020; Lu et al., 2019; McFadden & Williams, 2020) is by Buckley et al., (2015, p. 378), which states that ET is:

Critical thinking applied in the context of evaluation, motivated by an attitude of inquisitiveness and belief in the value of evidence pursuing deeper understanding through reflection and perspective-taking, and informing decisions in preparation for action.

Specifically, we can argue that evaluative thinkers in education demonstrate behaviours and skills such as setting clear goals, collecting and analysing data, adapting based on evidence, reflecting and seeking feedback, and making evidence-informed decisions (Clinton, 2021).

Why is Evaluative Thinking Important?

ET is increasingly acknowledged as a crucial factor in developing an organisation's evaluative culture (Fierro et al., 2018; McIntosh et al., 2020). An evaluative culture is related to an organisation's evaluation capacity and use, which assists in achieving higher quality implementation of initiatives and interventions that lead to improved outcomes. This is especially relevant in education initiatives that are innovative or are adapted for local contexts. Earl and Timperley (2015) suggest that traditional evaluation activities are often difficult and less productive in these situations, due to regular revisions of the initiative design, the implementation, and the intended outcomes.

Several projects in NGOs and community-based organisations have, however, shown that ET can be developed within programs and initiatives, and can positively impact implementation (Baker et al., 2006; Lu et al., 2019). A study of ET development in international NGOs found that, although "embracing ET required a shift in practices and investment of time, human resources, and money, the benefits they gained from it justified the costs" (Grinó et al., 2014, p. 60). In one of the NGOs in the study, implementing ET approaches, which included closer reviews of the program data, led to the realisation that an intervention they thought was successful, actually wasn't, and was possibly even leading to adverse outcomes (Grinó et al., 2014).

An investigation of the effect of evaluation engagement on the outcomes of public health interventions found that evaluation can provide "reasonably unique contributions to the overall program outcomes" (Clinton, 2014, p. 1). Evaluation use, therefore, plays a vital role in initiatives and programs achieving their intended outcomes and furthers the argument that organisations should be motivated to think evaluatively and engage in evaluation (Buckley et al., 2015; Hattie & Smith, 2021). However, US-based research shows that only about 20% of evaluations conducted in community-based organisations are performed by professional evaluators (Janzen et al., 2017). This indicates that most evaluation work is completed by internal evaluators and non-evaluation staff, who often have no qualifications and limited skills and experience. Therefore, if these organisations develop a culture of ET, it will increase the effectiveness and value of the work they are already doing.

Developing ET can be challenging, especially when needing to overcome strong cultures that may be distrustful of evaluation. Lu et al. (2019) recently identified facilitators and barriers to developing ET in NGOs. This work reinforces the idea that ET is more than merely doing evaluation and that engaging in ET needs to be intentional. Potential facilitators include transparency, structured reporting processes, a desire for measurement, and learning how to improve outcomes. Potential barriers

included limited funding, overburdened staff, and lack of strategic planning (Lu et al., 2019).

The Centre for Educational Statistics and Evaluation (CESE), in the NSW Department of Education, has a focus on developing the ET of teachers and school leaders to improve school quality, and therefore the outcomes of students (CESE, 2015). This is conducted in several ways, including by providing resources on their website, running professional development for school leaders, offering coaching by experienced evaluators, and incorporating the building of ET mindsets and skills into system-wide improvement strategies. One successful CESE initiative found that the ET capacity of teachers was able to be built when they were supported by experienced instructional leaders, provided with the necessary tools and time, and were given both professional learning and the time and opportunity to put it into practice (Wyatt, 2017).

Therefore, research shows that ET is potentially a critical factor in the success of programs and initiatives and should be considered when developing interventions, including those involving schools. It is also a skill that can be developed by school leaders and staff and within community-based programs. However, there is currently little documented evidence of ET being explicitly considered in the design or practice of initiatives and programs, especially in community-focused organisations or schools.

Evaluative Thinking in Schools as Community Hubs

Education is the primary field in which the modern discipline of program evaluation developed and expanded (Hogan, 2007; Madaus et al., 1983), and there is beginning to be explicit discussion in the literature of the potential impact of evaluation and ET in schools and on student outcomes (Cheng & King, 2017; Clinton, 2021). However, there is still limited understanding of the extent of evaluation use and ET in schools and how this affects program implementation and outcomes, especially for innovative programs such as SaCH (Earl & Timperley, 2015).

Evaluation practice and ET have been identified as essential in school improvement practices, with many of the largest effect sizes for improving teacher practice related to evaluation and ET (Clinton et al., 2015; Hattie & Smith, 2021). Evaluative practices are likely to be even more important when considering SaCH, because of their aim to address ‘wicked’ problems through a Collective Impact approach (Fry, 2019; Smart, 2017). Evaluation and ET are necessary for SaCH, due to the complexity of the implementation process. Implementation is never complete in a school hub, due to the need to continuously adapt based on data and evidence, and the changing needs of the users (Clinton et al., 2023). In the design and early implementation phases, decisions must be made about what is most appropriate for the hub, based on the local context. Once implementation commences, data needs to be regularly collected, to allow for investigation of the outcomes of the decisions made. This provides an evidence base, to ensure that informed decisions can be made, and

implementation can be adapted as necessary. This cycle continues, as implementation will never be complete. Ongoing data collection, monitoring and evaluation are required, to ensure continued effectiveness, and that changing contexts are noticed and acted upon (Clinton et al., 2023).

Existing Research on Evaluative Thinking and Schools as Community Hubs

Although ET appears to be an important factor in the successful implementation and achievement of outcomes in community-based programs, it is under-researched, especially in relation to SaCH. The lack of focus on ET in SaCH literature is not surprising. Despite appearing to be a natural fit with the work being done in most schools, especially those with an improvement focus (Earl & Timperley, 2015; Hattie & Zierer, 2017), evaluation is still missing from most school-based work. This is an ongoing issue, with Cousins et al. identifying, in 2006, that limited prior experience with evaluation and systematic inquiry is one of the most significant barriers to evaluation and evaluative inquiry in schools. These barriers persist in schools in general (Earl & Timperley, 2015; Piggot-Irvine, 2009), and in SaCH in particular (Kerr & Dyson, 2019; Provinzano et al., 2020).

The lack of hub schools engaging with evaluation and ET is slowly changing, especially in organisations that work to support SaCH, known as ‘backbone organisations’ (Kania & Kramer, 2011, 2013). Several Australian and US SaCH initiatives are supported by backbone organisations that are district or education department based or are funded by philanthropists. This includes Our Place (2022) in Victoria, Community Hubs Australia (2019) which operates across four Australian states, City Connects in Boston (Bowden et al., 2020), and the Chicago Community Schools Initiative (Ray & Egner, 2019).

One example of a backbone organisation is the New York City Community Schools program, which has been running since 2014 and by 2019 was supporting more than 200 SaCH, with a budget of \$195 million (Jacobson, 2019). A community schools office in the Department of Education supports the schools and hubs. A theory of change has been developed for this program, showing an explicit engagement with evaluation (Johnston et al., 2017). The model includes four key pillars, which are evidence-based but allow for flexibility and adaptability to each local context. “The use of data to inform continuous improvement is also a core component” of the New York City programs, with all schools having access to real-time data to inform decision making (Johnston et al., 2020, p. 10). Therefore, there is significant engagement with evaluation and ET at a system level, however, it is unknown to what level this has flowed through to the individual school and hub level.

Evaluation has been identified as an important factor in delivering quality after-school programs (an activity in many school hubs), by researchers and practitioners in the US (Russell & Newhouse, 2021). ET is noted as an important factor for

success, shown when “staff and leaders think critically about data, are curious about the conditions under which the results emerged, and are genuinely interested and motivated to use evaluation data to inform, launch, and execute program improvement efforts” (Berry & Sloper, 2021, p. 168). The focus is on not just collecting data, but engaging in critical and evaluative thinking, to ensure data is used to continuously improve. The authors suggest that building relationships, capitalising on the curiosity of staff, understanding the program logic, understanding what data is collected and how it is used, and developing strategic plans are all important steps to building the evaluative thinking of staff (Berry & Sloper, 2021).

SaCH backbone organisations in Australia are also making progress on integrating evaluation and ET into their ways of working, including Our Place (2022), Community Hubs Australia (2015, 2019) and Logan Together (2017, 2018). For example, Our Place (2020, 2022) produces annual progress reports, along with reports detailing the research and evidence behind their approach (McLoughlin et al., 2020). These documents show that Our Place values evaluation, data, and evidence-based decision making, as demonstrated in Fig. 1, the Our Place implementation framework (Our Place, 2020).

The organisation is demonstrating ET, even if it does not identify it by name, as their publications identify many aspects of ET in their work. This includes the use of evaluation, evaluation frameworks and theories of change, a focus on collecting data and tracking outcomes, the sharing of results, and a focus on building organisational capacity and capabilities.

Our Place has demonstrated success with its first SaCH, Doveton College, which opened in 2012 after five years of planning. Positive outcomes achieved by the school and hub include increased school-readiness among children who attend the on-site early childhood centre, increased school attendance, improved standardised testing results in years 7 and 9, and significant engagement by the community with the adult learning programs offered at the college (Doveton College, 2014; Glover, 2020; Our Place, 2019). Our Place has supported only 10 SaCH [which Our Place (2021) describe as place-based approaches that utilise the universal platform of a school], all located in Victoria, many of which are in the early stages of development, and it relies on significant philanthropic investments to do so (Our Place, 2022). This model, of a backbone organisation funded primarily by philanthropy, appears to be successful in individual sites but is not replicable at scale, nor is it reflective of the broader field of SaCH in Australia.

Instead, many hubs appear to be working independently, operating without the support of a backbone organisation, sometimes not even aware that they are operating as a hub. Often, these hubs develop haphazardly through engagement with individual partners and by offering specific activities, rather than through a strategic approach to support students and the community (Sanjeevan et al., 2016). ET is therefore important for these hubs, to ensure that they are asking the right questions about their programs and collecting the data to be able to answer them. This ensures necessary adaptation can occur, informed by evidence. It also allows for the demonstration of impact, which improves the ability to attract ongoing funding, which is an issue identified by many working in the field (Chandler & Cleveland, 2021).

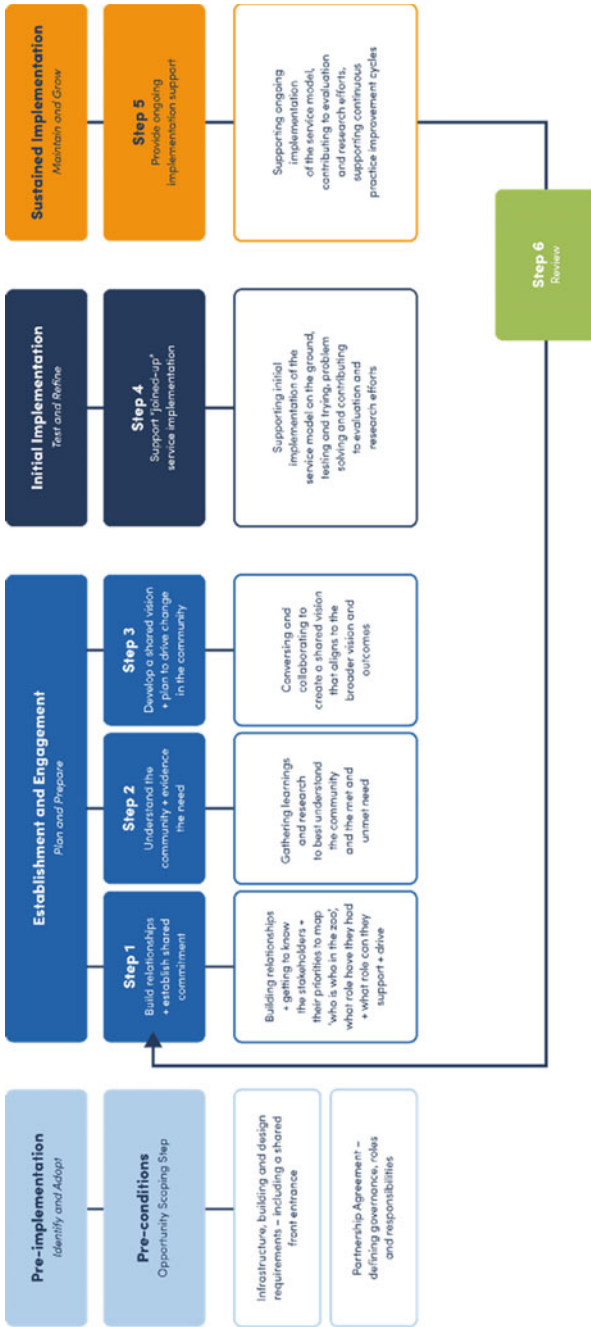


Fig. 1 Our Place implementation framework (Our Place, 2020, p. 7)

In Australia, federal, state, and local governments have been responsible for funding various programs to support the development of SaCH. Although evaluations have sometimes been conducted on these models (Department of Education and Training (Vic), 2015; Jose et al., 2019; Press et al., 2015), these are usually conducted early in the implementation process (Sanjeevan et al., 2016). This is often too soon to identify outcomes, which can take a long time to be detectable—as is common in Collective Impact interventions aiming to address wicked problems (Fry, 2019; Zuckerman, 2022)—such as academic outcomes at a whole-school level (Heers et al., 2016; Provinzano et al., 2020). Therefore, evaluation needs to be an ongoing process that hubs are engaging in, to allow for the determination of outcomes along the journey, which can be used to demonstrate that the implementation is effective.

However, there is still not consensus in the literature of the most appropriate outcomes by which to determine the success of SaCH, and these may also vary between hubs implementing different programs and initiatives, on different scales, with different target users and large differences in resources (Jacobson, 2016; Sondergeld et al., 2020). Therefore, each hub needs to decide on the approach best suited to their context, showing the need for ET, to ensure this is done effectively and efficiently. This allows for hub schools to evaluate programs and activities according to their own model and context, in line with their proposed theory of change. Further, an increased sharing of the findings of these internal and external evaluations should allow for the building of a knowledge base across the field regarding what outcomes are achievable, and what success looks like for SaCH in different contexts.

Conclusion

Evaluation is not currently an area of focus in much of the SaCH field, especially in Australia, despite it being identified as a likely factor required for success (Cleveland et al., 2022). This means that the benefits of evaluation are currently underutilised, making the path to successful implementation and achievement of intended outcomes more difficult than necessary (Clinton et al., 2023). There are, however, many identified barriers to conducting formal evaluations in most SaCH. Therefore, ET, as a way for SaCH to access the benefits of evaluation in a more user-friendly and cost-effective manner, needs to be explored. There is currently little research in this area. However, some organisations working in the field appear to have ET as a core part of their ways of working, even if they don't identify it explicitly as ET.

The link between ET and successful SaCH is not yet proven, despite it being likely, and supported by a small but growing area of research in SaCH and related fields (Berry & Sloper, 2021; Piggot-Irvine, 2009). Further research in this area is therefore required. If the link is identified, then a focus on the development of ET in SaCH, and their staff, can begin. This should increase the likelihood of successful implementation and achievement of intended outcomes by SaCH, therefore increasing return on investment for governments, schools, and the community (see Aston et al., 2023).

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Are Schools as Community Hubs Worth It?



Ruth Aston , Janet M. Clinton , and Hayley Paproth 

Abstract Understanding return on investment is a common priority for evaluating schools that operate as hubs for their community. Seeking answers to questions like, ‘are we getting adequate returns on our investment?’ and ‘when and where do we need to invest resources to maximise returns?’ is paramount to ensuring the sustainability of school as community hubs (SaCH) because they require ongoing funding to achieve their purported benefits for students, families and residents in local school communities. Economic evaluation designs that enable investment in SaCH to be compared with tangible benefits as well as future cumulative benefits will be explained and compared in this chapter. The discussion will be supported with examples that include practical strategies from economic evaluations of SaCH conducted in Australia and internationally where Social Return on Investment, Cost Benefit Analysis and Value for Money designs have been adopted.

Keywords Schools as community hubs · Economic evaluation · Social return on investment · Community benefit

Introduction

Determining what is valuable, what counts as ‘good enough’, and what offers the greatest return when a school is acting as a community hub are fundamental considerations. The questions are important regardless of whether a school is or is not a community hub, but for the former they are necessarily more complicated to answer in an evaluation. As discussed in earlier chapters of this book, *Evaluating Thinking*

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and the Success of Schools as Community Hubs (Paproth et al., 2023), and *An Evaluation Framework for Schools as Community Hubs* (Clinton et al., 2023), schools that act as community hubs can have interactions with community-based services, local governments and organisations as well as individuals in the community who all may be using school facilities on or off-site. Each of these stakeholder groups could have a different view of what might be considered valuable, or what might be accepted as an adequate return on investment, further still their activities individually and as a collective will contribute differently to the functioning of the whole school and local community.

Taking these contextual considerations into account, this chapter explores the application of economic and evaluative reasoning to schools that act as community hubs, and offers practical strategies for school staff, policy makers and other stakeholders engaged in economic evaluations.

Economic Evaluation in an Education Context

While there are many different types of economic evaluation, their common thread is that they all involve some comparative analysis of courses of action, where both the costs and the consequence of each action is considered to arrive at a judgement of merit, worth and significance (Drummond et al., 2005; Scriven, 1991). Evaluation theorists who have developed common typologies of different evaluation approaches, tend to advocate that economic evaluation is conducted when the evaluand (subject of the evaluation) is stable (Owen, 2006).

In education contexts, economic evaluations can be used to judge the value of school-based programs and policies, for instance, the Organisation for Economic Cooperation and Development (OECD) regularly reviews the performance of education systems across OECD countries, to capture how this performance relates to future economic productivity in terms of workforce participation, and gross domestic product. For example, a recent report detailed the impact (in economic terms) of learning loss over periods of interrupted and remote learning over the 2020 school year due to global restrictions associated with Coronavirus-2019 (Hanushek & Woessmann, 2020).

As one type of evaluation, economic evaluation can help "...provide robust information about whether something is valuable enough to justify the resources used" (Kinnect Group & Foundation North, 2016, p. 69).

Types of Economic Analysis for Schools as Community Hubs

Table 1 presents five economic analysis methods, each with advantages and disadvantages for evaluating schools as community hubs. Of the listed analysis methods, social return on investment (SROI) and cost benefit analysis (CBA) offer advantages

Table 1 Comparison of different economic analysis options

Economic analysis	Advantages	Disadvantages	Recommended timing
<p>Cost benefit Outcomes expressed in monetary terms</p>	<p>Determines whether the benefits of schools as community hubs (SaCH) outweigh the costs.</p>	<p>Requires all outcomes to be converted into dollar values.</p>	<p>Most commonly used in <i>ex-ante</i> evaluation to inform decisions about what options to invest in. Also used in summative (<i>ex-post</i>) evaluation when data on outcomes has accumulated and monetisation is possible.</p>
<p>Cost effectiveness Outcomes expressed in units, often in terms of human capital</p>	<p>Does not require converting outcomes into dollar values. Helpful for comparing different options (with different resources required) to achieve the same set of outcomes.</p>	<p>Unable to compare alternative options with different outcomes, only able to compare alternative options with the same outcomes as one another.</p>	<p>Summative evaluation, ideally when longitudinal data on outcomes is available, particularly at the community level.</p>
<p>Cost utility Outcomes expressed on a common scale of utility, often quality-adjusted life years (QALYs)</p>	<p>Able to compare within and between options who may have different outcomes. Utility units consider ‘quality’ as well as ‘duration’ both concepts are included.</p>	<p>Outcomes need to be converted to utility units, such as quality adjusted life years.</p>	<p>Process or summative evaluation provided outcome data is available. Useful when deciding on SaCH programs and activities, such as facility sharing arrangements.</p>
<p>Cost consequence Outcomes are presented in disaggregated form (Drummond et al., 2005)</p>	<p>Able to handle different outcomes measured in different units (that is not necessary to express in monetary terms, or on the same scale).</p>	<p>Requires the reader to come to their own conclusion about value, based on disaggregated costs of many options and their outcomes (usually presented as mean effects with variance reported in confidence intervals).</p>	<p>Process or summative evaluation. Helpful when reviewing a theory of change for SaCH and comparing outcomes and costs from different components of SaCH.</p>

(continued)

Table 1 (continued)

Economic analysis	Advantages	Disadvantages	Recommended timing
<p>Social return on investment (SROI) Assigns a value to change being created, often considered an extension of CBA to include a wide array of outcomes</p>	<p>Able to assign value to a variety of outcomes and include future value generated because of outcomes. In contrast to CBA, varying levels of rigour with respect to financial accounting is acceptable within SROI. That is estimates of value may be considered sufficient, in relation to the intended user and audience(s).</p>	<p>Requires application of a financial value and/or proxy to all outcomes. Risk of over or underestimating value when future financial value is based on limited reliable information, or requires forecasting based on assumptions with variable evidence.</p>	<p>Forecast SROI can be useful for formative evaluation, where there is a well-developed theory of change, but longitudinal outcome data is not yet available. Offers predictive conclusions about future returns.</p>

Note Evaluative SROI is suitable for summative evaluation, yet still requires some prediction of long-term social outcomes such as metrics of lifetime customer value (see Clinton et al., 2023; Hyatt et al., 2022)

when it comes to assessing schools as community hubs, particularly in the ability to compare investments with multiple outputs (e.g., programs and activities) and a variety of outcomes that could change over time. It is therefore unsurprising that most published economic evaluations of schools as community hubs or community schools have been conducted using SROI and CBA (Bowden et al., 2020; Deloitte Access Economics, 2021; Watson et al., 2016).

A recent SROI of the National Community Hubs program in Australia found that for every \$1.00 invested in resources associated with schools acting as community hubs in Australia, \$2.20 in returns are generated in social benefits, including educational attainment, students’ future employment and health and wellbeing (Deloitte Access Economics, 2021). A CBA of City Connects in the US, a whole-school program offering comprehensive wrap-around support for students to receive all necessary services, yielded a very similar benefit to cost ratio, where \$2.76 value is generated for every \$1.00 invested (Bowden et al., 2020).

Cost-effectiveness (CEA), cost utility (CUA) and CBA along with SROI all aid in understanding the efficiency of investments made for schools to work as community hubs in different ways. They enable an evaluator to make a conclusion about relative value, comparing the return from different activities withing SaCH (CEA and CUA), and whether an investment creates more value than it costs to implement. For instance, SROI enables outcomes and costs to be combined and be expressed as a ratio or

overall value generated. However, each of these options, in isolation, are not able to determine how ‘well’ resources are used and whether such resource use is justified in reference to social or distributive justice.

In the context of schools that act as community hubs, social or distributive justice is an important concept, as in some cases, schools acting as community hubs are seeking to redress imbalances in resource allocation and access to services and education (Jacobson, 2016; McShane & Coffey, 2022). Accordingly, an approach to economic evaluation that answers questions about the degree to which resources are being used well is needed for the economic evaluation of schools as community hubs.

Dr. Julian King built on the original concept of value for money (VFM, focussed on understanding good resource use) and developed the value for investment approach (VFI). VFI is an economic evaluation approach that combines evaluative reasoning with economic analysis (King, 2019) to enable those involved to think and act evaluatively (see Clinton et al., 2023). Specifically, VFI enables:

- A theory of change to be tested,
- Investments to be compared to outcomes, and
- Interpreting the ratio of outcomes to benefits with relevant contextual information from both qualitative and quantitative sources.

Value for Money in Schools as Community Hubs

VFI builds on the traditional economic evaluation methods detailed in the previous section because it combines evaluative reasoning with economic theory and principles (King, 2017). The VFI approach is holistic and utilises a mixed methods approach, where multiple forms of evidence that are both qualitative and quantitative can be combined and included in the valuation process. Importantly the approach also encourages stakeholder engagement, with their input contributing to evaluation co-design, fact-finding, and informing the judgement of value for money.

Stakeholders’ views are incorporated most fundamentally in the development of criteria (and subsequently a rubric) for defining contextually determined criteria such as economy, efficiency, effectiveness, and equity in the context of the operations and outcomes of schools that act as community hubs. Figure 1 details and summarises the eight stages of the VFI approach to assessing value for money.

Step 1: Understanding the Subject

The first step in the VFI approach is to generate a detailed understanding of the subject of the VFI, in this case the design and scope of the work of schools that act as community hubs. As noted in the *Evaluation Framework for Schools as Community Hubs*, this is also the first stage of building an evaluation framework. Often a logic model is used to define the investments, associated outputs and outcomes, or in other words the *theory of change*. In many cases, by the time an economic evaluation is

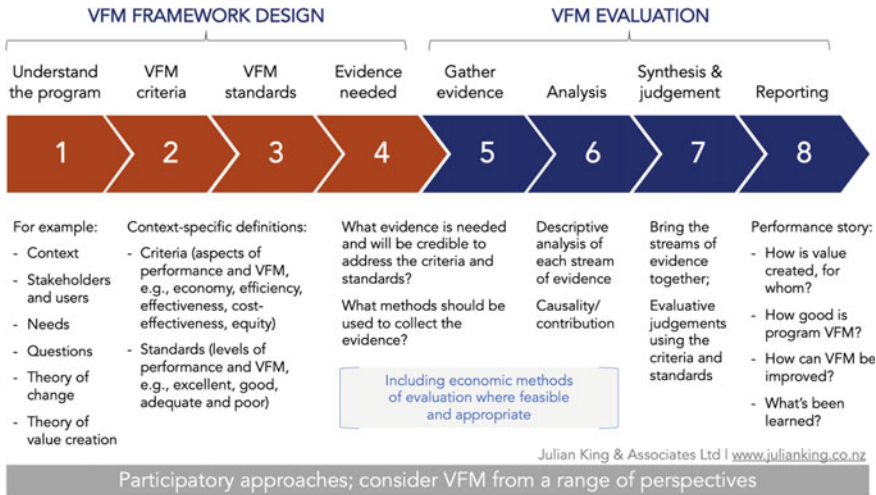


Fig. 1 Stages of VFM methodology, i.e. the VFI approach (King, 2020)

occurring, a theory of change may have already been defined, however it is essential to ensure that any theory of change which is articulated in a logic model, reflects the reality of how a school is working as a community hub, therefore reviewing this is an important first step of the VFI approach. Depending on the stage of the SACH, it may be possible to extend the theory of change to be a *theory of value creation*, which details how a SACH can generate more value than the invested resources (King, 2021).

Step 2: Develop Criteria

Having established the theory of change for schools working as a community hub, it is then necessary to develop criteria of merit or worth. These entail performance descriptors (see box below), which tend to be broad but measurable statements that define success. Some organisations adopt the Four Es as a framework of criteria, such as but not limited to the UK National Audit Office, and the Australian Government (see the Public Governance, Performance and Accountability Act, 2013):

- **Economy:** investments are of sufficient quality at an appropriate cost to produce desired outcomes,
- **Efficiency:** Conversion of investments into outputs (e.g., facility use, school programs), including a school’s influence over the quality and quantity of outputs,
- **Effectiveness:** delivery of outputs in a way that they achieve the desired outcomes, and
- **Equity:** Outcomes and all benefits associated with the delivery of outputs must be distributed equitably.

There may be other dimensions (outside of the four E's) that stakeholders or evaluators also wish to examine, which could be added if that is the case, but any descriptor must be able to be evidenced by the collection of data, whether this is qualitative or quantitative. For example, a fifth criterion called **cost-effectiveness** is often added to the framework, and this is often where economic methods such as those described in Table 1 can contribute to the VFI assessment.

Performance

A consistent definition of levels of performance is a goal to aim for, to the extent that this is possible. The following offers a guide to consider.

High performance: Schools working as community hubs are meeting the aims and objectives they seek to achieve. In some areas they may be achieving more than the stated aims, but there is also the possibility for continued growth.

Moderate performance: Schools working as community hubs are meeting aims in most areas, but some improvement is needed to increase and sustain performance.

Average performance: Schools working as community hubs are meeting minimum objectives, but not fully achieving the aims. Large improvements are required to progress.

Poor performance: Schools working as community hubs are not meeting minimum requirements, significant and major improvements are required.

For schools as community hubs that are regularly engaging in monitoring and evaluation, there may be information recorded about economy, and efficiency which could be used in an economic evaluation eliminating the need for new data to be gathered for those areas. Effectiveness and equity are likely to require analysis or regularly collected information. For example, if a school leader was interested in understanding whether student attendance had improved since investment into facility improvements was made at the school, they could access the school's attendance data before and after the facilities had been improved to address this question.

Step 3: Develop Standards

The third step is to build on the performance descriptors and organise them into levels of performance. Often this is categorical, i.e., 'high', 'medium' or 'low', but there could also be existing standards for a component of schools as community hubs, for instance there may be existing standards for the efficiency of school facility design and use, these can be incorporated and where possible used as part of the VFI approach.

Whether standards are being developed, or existing standards are being adapted for use, each standard needs to relate to the four E's and descriptors for each should be developed in step 2. Further each standard must also clearly define levels of

performance within each descriptor. For example, standards for effectiveness must include a definition of ‘poor’ effectiveness, ‘good’ effectiveness and so on.

The methods associated with developing both criteria and standards, are not specific to VFI assessment; methods used to develop rubrics for assessing performance in an educational assessment, or evaluation are the same as what can be used to evaluate VFI. It is recommended that participatory processes be used, where stakeholders with direct involvement in the design, funding and implementation of schools working as community hubs are gathered to come to a shared understanding of what is necessary at each level of performance for each criterion. Steps 2 and 3 can be completed together, with a similar or ideally the same group of stakeholders.

Step 4: Identify Evidence Requirements and Methods to Gather Data

Once the criteria and standards have been developed, a plan for how to gather evidence to assess performance is required. Again, if VFI is embedded in a broader evaluation it is likely that this may already be in place. Identifying appropriate methods for gathering evidence is an important consideration in the context of the VFI. Put another way, step 4 needs to define the requirements also for this evidence. For example, to make a judgement about efficiency, it is likely that evidence about investments need to be provided at the ‘unit’ and ‘year’ level. That is, the cost of maintaining a school gym as a facility that is used outside of school hours needs to be separated from the cost of maintaining other school buildings. Further costs can change over time, due to market changes, inflation, and so recording actual funds in each year they are spent is necessary (Levin et al., 2017).

Step 5: Gather Evidence

The gathering evidence phase is like a data collection phase in any evaluation and will usually include an economic method as described in Table 1. Using existing monitoring and evaluation activities is ideal if credible evidence will be gathered that will enable the evaluator to assess the level of performance that a school working as a community hub is at relative to the criteria and standards developed in steps 2 and 3.

Step 6: Analyse Evidence and Step 7: Conduct Synthesis and Determine VFM Judgement

Analysis of evidence gathered usually requires three stages, particularly if both qualitative and quantitative evidence has been gathered. The first stage requires that each source of evidence to be analysed first individually at the data source level, to determine findings at the source level. The second stage (consistent with a mixed methods triangulation design, see Plano-Clark et al., 2008), involves identifying the degree of

convergence (similarity in findings) and divergence (where findings are contradictory across sources) across the findings. This needs to be done firstly for each individual criterion (each of the 4 E's), and then synthesised across all criteria. Finally, the third stage involves using the standards for each criterion where a judgement of the level of performance is made for the schools to work as a community hub across each criterion.

In practical terms, the process of arriving at this judgement may require additional stakeholder input, particularly if a determination has not been made a priori about whether criteria are weighted equally, for instance it may be important for effectiveness to be weighted more strongly than economy criteria.

Step 8: Reporting

Finally, the last step involves reporting the results of the VFM assessment adopting a VFI approach. This may vary depending on who the audience(s) are, and how the findings can be useful to those audiences relative to their specific role or stake in a school acting as a community hub.

One essential component of the reporting process is to clearly identify assumptions and parameters upon which the evaluation is based. Economic data is highly sensitive to contextual changes, which is ideal when considering reliability, however it can also mean that return on investment can be vastly different from one year to the next. For instance, if a school is engaging in facility redesign, it is possible that a very large investment is being made in one year, and within the same year little benefit is found because the facility is not yet ready for intended use, however in the second and third year, since the initial investment, benefits may far outweigh costs because building maintenance costs are low (particularly for a new buildings), and use is high.

In the context of schools working as community hubs, it may be advantageous for a VFI approach to be considered a living exercise, where investment data is being regularly updated along with outcome data to understand progress. For example, evaluations conducted early in the life of a school operating as a community hub might focus solely on economy and efficiency, later adding effectiveness and equity as outcomes data become available. However, completing the full process, particularly steps 6–8 is only advised when sufficient evidence is available, and it is timely for a judgement to be made based on the theory of change underpinning schools as community hubs. A premature judgement using a VFI approach is highly vulnerable to arriving at a conclusion about performance that is inaccurate, hence Owen's recommendation for economic evaluation to be conducted when an evaluand is stable (2006). To that end, economic evaluation should be considered one element of thinking and acting evaluatively as part of sustaining effective SaCH and contributing to embedding the 12 key factors and six principles of the How to Hub Australia Framework (Cleveland et al., 2022).

Conclusion

Reflecting more broadly on VFI as an approach to economic evaluation, this chapter has highlighted that the steps of the VFI approach align with that of an overarching evaluation framework (see Clinton et al., 2023). Specifically, the use of routine monitoring data including budgets, the clarification of the theory of change (which can be used in other evaluation activities) and finally, the development of conclusions about whether resources invested have generated more benefit than they cost, plus whether the resource investment is justified are generated.

A VFI approach can overcome some of the criticisms of applying other economic evaluation methods in complex programs aiming to address wicked problems (see Paproth et al., 2023), because it enables the inclusion of multiple sources of evidence, and for evidence to be included in the comparison of costs and benefits that would not be appropriate to monetise (apply a financial value to reflect the worth of the benefits).

VFI is an interdisciplinary approach to economic evaluation, which supports the process of thinking evaluatively in the economic analysis process, which can help overcome the disadvantages of traditional economic analysis for use in evaluating schools that work as community hubs. It offers the generation of actionable conclusions about value which can be used to inform resource allocation and efficiency in the planning of SaCH. While economic evaluation is most often conducted in summative evaluations where longitudinal outcome data is available, assessing VFM in a formative evaluation enables conclusions to be used in SaCH planning and inform decision making around large investments in facility design, for example.

Economic evaluation is an important component of monitoring and evaluation activities in SaCH. We argue that a VFI approach to economic evaluation is the best-fit and can support more specific analysis approaches such as social return on investment and cost benefit analysis to be conducted when longitudinal outcome data is available. Generating evidence about the value of SaCH is essential for schools to continue to work as community hubs in a sustainable manner, by informing decisions about investing in activities, programs and services that maximise the value of school facilities and assets for the benefit of the school community as well as the local community.

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