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Crime Prevention Through Environmental Design

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Surprisingly, over 50% of the projects cost less than NZD 25 000 and nearly three quarters cost less than NZD 50 000. This is despite no school having a budget below NZD 30 000 and 75% of the schools having a budget over NZD 60 000. The average budgets for schools are shown in Table 1.

Table 1. Average 5YPP budgets for schools of different enrolment sizes

Enrolment	5YPP budget (NZD)
< 100	60 000
100 - 249	175 000
250 - 749	430 000
750 +	1 500 000

The Ministry of Education surveyed 200 schools in 2003. On the whole, schools are positive about the new regime. Most believe that there is now far better overall planning for a property strategy within their school. Similarly the 5YPP programme is seen to enhance school culture, better align property with educational priorities, create more opportunities to self-manage, give more certainty as regards funding for property, create better opportunities to maximise the use of funding and promote innovation.

Future projects

The ministry is developing projects to help schools make property decisions. One is a methodology to evaluate the quality of facilities, giving special attention to the classroom. Another major project is to improve the quality of information to schools, in particular how property can enhance educational outcomes.

New Zealand is giving their schools power to make the decisions they think will create learning environments that will best suit their students for the 21st century. This is a framework that allows experimentation by schools. While some mistakes may be made they are confined to a particular school, and successes can be copied by other schools that believe them appropriate for their students.

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CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN

Crime Prevention Through Environmental Design (CPTED, pronounced \sep-ted\) is a term that was coined by U.S. criminologist C. Ray Jeffery in the early 1970s. In essence, Jeffery's work suggests that the physical and social environment can provide opportunities for crime to occur, and it follows that opportunities for crime can be reduced by varying environmental factors. Jeffery's CPTED concept, along with the principles of "Defensible Space"¹ advanced by architect and researcher Oscar Newman around the same time, was a turning point in the evolution of the "art" of crime prevention. Applying CPTED strategies to schools can significantly contribute to a safer learning environment by influencing the behaviour of students and visitors.

CPTED has three overlapping primary concepts that are intended to reduce opportunities for crime as well as fear of crime: access control, surveillance and territorial reinforcement. These core concepts offer a framework for the effective design and use of space to minimise undesired behaviour. It should be noted that while the design of an environment is important, the use and management of that space is equally important when applying CPTED strategies.

In a CPTED context, the term *access control* refers to the use of symbolic or actual barriers to restrict, encourage or channel the movement of people or vehicles into, out of and within designated areas. Access control assists with defining space and contributes to the approach of territorial reinforcement.

Surveillance is intended to increase the opportunity to see and be seen within a given space, through improved sightlines, lighting, and compatible adjacent uses. This has the affect of discouraging undesired behaviour by enhancing opportunities for intervention.

Territorial reinforcement aims to strengthen ownership and behavioural expectations within a given space, as well as to facilitate guardianship. Both access control and surveillance contribute to defining the territory and raise expectations that there will be a response to undesired behaviour.

1. Newman, Oscar (1972), *Defensible Space: Crime Prevention Through Urban Design*, Macmillan, New York, NY.



Fencing can be a “natural ladder” giving unwanted access to the roof.

In general terms, CPTED strategies first and foremost support desired behaviour within a given space, and as a by-product reduce undesired behaviour. For example, clear signage at the entrance to a school instructing visitors to report

to the administration before going elsewhere on campus can assist with orientation, and at the same time reduce the range of excuses available to anyone entering the grounds for unauthorised purposes. Other supporting strategies can further facilitate compliance with what is desired, such as a clearly defined transition from the outside public space into the semi-public space within the school grounds, an orientation map near the point of entry or directional signage within the grounds.

While the principles of access control are easily identified with restricting entry into grounds and buildings, its use as a CPTED concept goes much further. For example, features such as seats, noticeboards and public telephones can legitimise loitering and enhance anonymity for individuals using them. This loitering behaviour can be exploited to commit a robbery if located near an automatic teller machine. Applying CPTED strategies can identify these potential “loitering facilitators” and support their intended use, while ensuring that they are physically or visually separated from potential crime targets.

Similarly, some aspects of design, or even the location of equipment or facilities, can inadvertently support undesired behaviour. For example, many schools use fencing and gates to restrict movement around the campus; in doing so, care needs to be taken to ensure that the design of the fencing or gates does not provide a “natural ladder” for children or unauthorised persons to access the roof or adjacent areas.

Over the past 30 years, several crime prevention initiatives in educational institutions have drawn upon CPTED principles. Perhaps the first of these was a school crime prevention project in Broward County, Florida (United States),² funded through a federal grant programme in the 1970s. This project evaluated the benefits of applying the CPTED tenets of natural surveillance and territorial reinforcement, including promoting an “increased sense of responsibility on the part of students for crime prevention”.³ In spite of being decades old, this project remains relevant today in schools around the world, where similar crime and security problems are still being encountered.

The network of covered walkways accessible from a “natural ladder” can provide opportunities for crime and other undesired behaviour.



In 1993 the Florida Department of Education published a comprehensive set of design guidelines⁴ for its schools based on CPTED concepts and principles. These guidelines address issues including school environs, site design, building design and interior spaces, as well as systems and equipment. Interestingly, the Department’s publication recognises the importance of the context within which strategies are applied and takes into account the need for the environment to first support the intended use of the space.

Timothy Crowe, who worked on the above-mentioned Broward County schools project, highlights the necessity of understanding behavioural objectives before considering a crime prevention strategy.⁵ Crowe’s approach recognises the need to initially support desired behaviour through the design, use and management of space, and only afterwards to apply strategies to reduce undesired behaviour.⁶ This hierarchy of addressing desired, and then undesired, behaviour has the benefit of ensuring that crime prevention strategies are contextually appropriate and do not unduly detract from the optimum use of a space.

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2. Crowe, T.D., et al. (1976), *Crime Prevention Through Environmental Design: Schools Demonstration*, prepared for the U.S. Department of Justice, Law Enforcement Assistance Administration, National Institute of Law Enforcement and Criminal Justice, Westinghouse Electric Corporation, Arlington, VA.

3. Jeffery, C. Ray (1990), *Criminology: An Interdisciplinary Approach*, Prentice-Hall, Englewood Cliffs, NJ, p. 413.

4. The Florida Center for Community Design and Research (1993), *Safe Schools Design Guidelines: Recommendations for a Safe and Secure Environment in Florida’s Public Schools*, Florida Department of Education, Florida.

5. Crowe, Timothy D. (2000), *Crime Prevention Through Environmental Design* (2nd Edition), Butterworth-Heinemann, Stoneham, MA.

6. Crowe, T.D. and Zahm, D.L. (1994), “Crime Prevention Through Environmental Design”, in *Land Development Fall Edition*, p. 22.