

Costa, M (March 2004). Teacher Adaptations to an Open Area Teaching and Learning Environment  
 Educational Insights, 8(3). [Available:  
<http://www.ccfi.educ.ubc.ca/publication/insights/v08n03/articles/costa.html>]

## Teacher Adaptations to an Open Area Teaching and Learning Environment

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### Social Justice and Teaching

As teachers, we advocate for our students (Fairbairn, 2003). We seek help for students who are victims of poverty, neglect and abuse. We campaign for the rights of special needs students, and we fight against racism, discrimination, and prejudice in schools by encouraging students to explore, understand, and value human diversity. We raise funds for special school projects, and we tailor our instructional programs to the needs of our students.

We coach student teams, we support student clubs, and we promote and organize student concerts and plays so that students can discover, develop, and nurture their interests and talents. We supervise student playgrounds and we plan field trips to places that excite and inspire our students. We buy school materials to support curricular programs and we work hard to make schools effective and compassionate learning places for all students.

We treasure the experiences and knowledge that our students bring to school and we change our educational practices as we learn from them. We strive for an educational system that emphasizes equality, fairness and social justice for all (Fairbairn, 2003). We know that our students' success in school depends on teachers advocating for them.

As teachers, our main goal is to have all students fully participate in learning environments that are shaped to meet their emotional, intellectual and social needs. This is a challenging task that requires teachers to translate the best in educational research and practice into real classroom settings (Taylor, 2003). The aim is to create learning environments that can enliven and inspire students of all interests and abilities.

Learning environments normally require schools and classrooms to have physical layouts capable of supporting student learning, curriculum programs, and a variety of pedagogies (Taylor, 2003). Learning environments usually need a wide range of learning spaces, clearly defined for their specific purposes within a school, so that teachers can take advantage of the different learning styles of their students and deliver meaningful and authentic learning (Taylor, 2003). Small enclosed learning spaces, for example, can provide privacy and intimacy to some students and invite others to engage in thinking skills that demand quiet reflection and analysis. Alternatively, large open learning spaces can lure students into group activities where they can develop social skills and acquire a sense of belonging and community. The physical layout of schools and classrooms is intertwined with the structure and function of the learning environments (Taylor, 2003).



### Open Area Concept—Literature Review

Open area school design was controversial when it first appeared, and the debate that has continued since over its worth is reflected in the various research reports and literature reviews included in the appended bibliography. It is noteworthy that research in this area was conducted and published within a relatively short time span. The majority of available texts and research reports date from 1970 to 1975. After 1979, there appears to have been very little

published on the topic of open area schools. This cessation of published material probably corresponds to the fall from favour that the open area approach experienced then.

Most research on open area learning has been typically written from the viewpoint of proponents of open area design. Often, the voice of teachers has been forgotten in the final analysis of data and, consequently, some false conclusions have resulted (George, 1975). For example, in a study conducted by Kyzar (1971), sound levels in open area schools were investigated because teachers believed that the noise level was interfering with teaching (George, 1975). Kyzar measured and compared the noise levels in open area schools and conventional schools, and he found that the noise level varied from a low of 65 decibels in conventional schools to a high of 70 decibels in open area schools. He concluded, therefore, that there was no significant difference in the noise level (George, 1975). Unfortunately, Kyzar was not aware that sound in a contained classroom is more controllable than it is in an open area, and a simple comparison of decibel readings does not provide a basis for concluding that open area teachers were imagining things, which was his final conclusion.

Attempts were also made to compare contained classrooms and open areas in terms of mobility of students. In one study, Edwards (1973) compared the pupil-to-pupil and pupil-to-teacher interactions in contained classrooms with those found in open-area schools. Observers, standing at the back of the classroom, made little ticks on a chart when a certain student was engaged in specific categories of behaviour. The study concluded that student interactions with other students in open areas were more frequent than in contained classrooms. However, had the researchers discussed their findings with teachers, they may have discovered that student interactions more directly relate to the philosophy of the teacher and the school than to the shape or size of the classroom.

All too often, comparisons between schools with open area areas and schools with conventional classrooms suffer from uncontrollable, controlled for, or unforeseen proliferation of extraneous variables, such as location of schools, nature of student populations, and philosophies of teachers.

### **Introduction to the Research Site**

The elementary school studied in this project was built as an open area school in the 1970's at the request of the local community. Therefore, no inside walls were ever built to create a clear delineation and differentiation of learning spaces within the large open area or to define clear hallways for the movement of students, teachers, parents, and visitors. The community adopted an open educational pedagogy since the new school was thought of as a smaller community within the larger local community. The belief was that the open plan classroom would allow for flexible groupings, independent movement of students, and shared teaching and learning spaces throughout the school building. However, more than twenty years later, the commitment to an open area school has faltered. Principals and teachers who started the project in the 1970's have since left, and interest in open education has declined among many parents. The school district stopped construction of open area schools, having experimented with the concept through the late 1960's and into the mid 1970's.

The elementary school is located in a lively, bustling area of the city. The peculiar combination of health food stores, espresso bars, small ethnic restaurants, shops, and community services makes this community a vibrant and caring place in which to live and raise a family. One of the city's first innovative medical clinics is nestled in among the street's restaurants, coffee bars and shops. The community complex provides a wide variety of services, facilities, and educational programs for infants, young children, teenagers, young adults, parents, and senior citizens. The elementary school is an integral component of the community complex, enjoying easy access to its many and various programs and facilities.

The school is a study in contrasts. It is a component of a well-known Community Services Centre, yet the interior still appears unfinished to staff and visitors. It is an elementary school, yet the internal design of the learning environment seems to provide some noisy and visually challenging situations for learning. It is a learning environment for children ages five to thirteen, yet the physical setting of the school appears to be mostly pavement and concrete. It is an open area school, yet the floor space is divided by an assortment of makeshift screens into separate teaching areas.

The true art of teaching is molding the physical environment and imagining the pedagogies that will make the act of learning a successful experience for every student at school. This is a school where the contrasts have led to the best in educational practice and authentic learning, and where the contrasts have

greatly defined the meaning and value of teaching as an art.

Some of the visual and spatial characteristics of the open area design might appear to present the school with certain challenging effects. Some of the physical aspects of the school building that seem striking at first sight are: windowless interiors, unusual ceiling patterns, low ceilings, peculiar angles and unexpected walls and windows (sometimes transparent, sometimes opaque), and narrow passageways leading off into the distance.

Occasionally, “walls” are made up of cabinets with teaching materials arranged along the tops. Between the lights and the ceiling is a unique combination of air ducts, aluminum-coloured fire sprinkler pipes, electrical conductors, computer network and telephone cables, and water pipes. There seems to be no apparent pattern in the school when one surveys the building superficially, and occasionally, one who is new to the school might find it difficult to feel a sense of location or direction in this assortment of partitions.

The lack of walls and the absence of barriers above the lighting fixtures appear to facilitate the transmission of sound from area to area, giving the feeling that it is being amplified through sheer aggregation. The combination of voices, furniture movement, cabinet doors opening and closing, footsteps, pencils sharpening, public address system announcements, occasional cries and shouts, laughter, and conversation all appear to combine to enliven the building with a mixture of unexpected and sudden sounds against a constant background of noise and hum generated by students learning in unison.

### **Goal of the Project**

When the school was built in the 1970's, the open area design was chosen because the belief, at the time, was that open learning spaces would foster student initiative and independence, nurture student interpersonal skills, and create flexible teaching and learning spaces throughout the building. However, the nature of the instructional responsibilities of teachers are such today that the open space configuration of the school seems to make it more difficult to meet those goals. The aim of this action research project is to analyze the pedagogical solutions advanced by teachers to create boundaries and separations between learning areas in the school in order to eliminate noise and visual distractions, define learning spaces, and create a sense of structure.

### **Data Collection**

Data were collected through interviews, as well as through a series of observations, discussions, and photographic studies of the building. Four teachers, who had taught primary and intermediate classes, as well as in open and contained classrooms, were interviewed. Teachers were asked to identify the ways in which the interior of their current school had been altered in order to implement successful programs of instruction based on their experience in teaching in previous schools with conventional classrooms and hallways. They were also asked to reflect on the changes to the school since its original construction, and to give their views as to how and why the changes came about.

Photographs of teacher adaptations to the open area were analyzed. The photographs and initial findings were later presented to the five research participants for their reactions, suggestions, and further input. Several informal conversations also took place with former teachers, parents, and management staff from the school. The aim was to collect data by observing the school environment through the eyes and voices of the people working in the school.

### **Findings**

Teachers in the study felt that the absence of walls and doors in the school made it a little bit more problematic for students to listen to each other and to the teacher. As well as auditory distractions, the open area design seemed to present students with some visual distractions, as classes and groups of children moved through the building — crowding and tight proximities between classes made this situation more challenging. As a result, teachers have improvised with furniture placement and make-shift screens to try to section off areas for specific kinds of instruction and to block off any noise and distractions within these areas. The partitions erected by the school district, after the School Accreditation process, have also greatly minimized auditory and visual distractions and given students a sense of privacy.

Even though the open area school was promoted as fostering spontaneous and flexible uses of space, the arrangement of electrical outlets makes it difficult to actually be flexible. The electrical plugs mounted into the concrete floor of the

building's open area and columns limit some of the options available for placement of student furniture. Some student movement and foot traffic tend to make some of the floor-mounted receptacles inaccessible in some areas of the school. The structural brown wood columns, spread throughout the open area, are used for mounting additional receptacles, but sometimes the receptacles, do not work because gravity pulls the cords down. However, the school district has closed, repositioned, and added a few more receptacles in some learning spaces in order to provide teachers with some more flexibility in furniture arrangements.

The designers of the building did not foresee the degree to which the process of schooling would become dependent on network connections and the provision of electrical power to computers, tape recorders, radios, and overhead projectors. The building is being adapted to include these functions. In the meantime, teachers have used some creative solutions in order to connect classroom computers to the Internet. This has included using lighting fixtures and beams to support and guide the cables to the classrooms.

In addition, there are some physical features to the open area design, such as the large wood structural columns spread throughout the building that seem to defy adaptation but are ingeniously included in teachers' instructional practices and activities. These columns may appear in the middle of a hallway, in the middle of a doorway, or in the middle of teaching areas. They are often decorated with students' work or used to affix gentle reminders about school expectations. Some columns are decorated as trees and others as Greek columns depending on the unit being taught in class. The columns prompt teachers to arrange student furniture in such a way that the columns become an integral part of teaching and learning.

The nature of the interior of the building has prompted teachers to explore instructional practices and activities that can successfully intertwine the physical layout of the school with curricular programs and the needs of students. The lack of visible physical structure and the absence of implicit boundaries has led teachers to embody pedagogical philosophies that successfully create a sense of order throughout the school.

For example, for the morning schedule, teachers have implemented a school-wide program of direct skill instruction in literacy, using a structured reading program. This program addresses the needs of the students, and eliminates noise and visual distractions. Also, curricular programs that require direct teaching, quiet reflection and analysis, as well as independence from students, are delivered in the morning. In addition, teachers learn each other's timetables, and they plan noisier activities for the afternoon. By designing and implementing programs that are able to simultaneously combine the needs and abilities of students and eliminate noise and distractions throughout the school, teachers have been able to impose order, structure, and boundaries in the school.

## Conclusions

Open area design might be overwhelming to some students due to its vastness (Monahan, 2002). Since the open space lacks implicit structure in the form of walls and hallways, there appears to be no clear and quick indication on how to generate specific spaces within the large open space for the different kinds of learning (Monahan, 2002). However, screens and partitions can be used to create a sense of direction, privacy, and intimacy. In addition, classroom identity and pedagogies can be developed and implemented with the intention of not only supporting learning but also of delivering a rhythm that provides students with a sense of structure, order, and calmness in the school (Monahan, 2002).

This is the true art of teaching. Silence is not the key, and there is no attempt to imply that silence equals learning or that walls and rows of desks bolted to the floor imply structure and order. However, at times, some students might gravitate toward learning spaces that can facilitate exploration, discovery, as well as sharing and thinking in a more private and intimate learning setting.

The school has benefited tremendously from the support of the school district in the form of funding and additional staffing. A few years ago, the school district erected partitions which greatly helped minimize noise and visual distractions and provided a sense of physical structure to the interior of the building. The partitions also created private and intimate learning spaces for students.

Moreover, the school district has continuously provided additional teachers and teacher specialists to the school, facilitating the implementation of programs, lowering class size, and allowing flexibility in the placement of students each year. In addition, the school district has provided funds which have greatly

facilitated the development and choice of programs by teachers. Hence, it is a school that is continuously and successfully making efforts, with the help of the school district and community, to adapt to new realities in educational research and the changes in student population.

## Epilogue

Every school day, the school district, the school's administrator, and staff collectively transform this open area school into a place of learning where students feel welcome, valued, and challenged intellectually. A school is more than a physical environment. It is a living learning environment that depends on its teachers to be able to search out, explore, and adapt new teaching practices that can transform any physical environment into an effective, stimulating, and compassionate learning environment. Advocating for students relies on us being able to reach them through our educational practices and philosophies, and when that does not happen, it requires us to learn from our students and our environment and allow them to change our core philosophies.

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