Executive Summary: Radical Change in New China

Yew Chung International School (YCIS) serves thousands of pre-k through secondary students in Hong Kong, Beijing, Shanghai, Chongqing, Qingdao and Silicon Valley. YCIS Shanghai is the longest established independent international school in the region and has a reputation for academic excellence that develops well-rounded, globally-minded students. Given the demand for their Early Childhood Education program, in 2017 YCIS hired the design team to create a state-of-the-art Ronghua Campus in Shanghai for their youngest learners, 500 students ages two-six years old.

BILINGUALISM AND A CO-TEACHING EDUCATION MODEL

This new campus is one of the best three-dimensional illustrations of YCIS founder Dr. Betty Chan’s pioneering philosophy that has redefined what modern day Chinese education can and should look like. Dr. Chan and the Yew Chung Philosophy celebrate play-based and project-based learning, which is a radical departure from traditional education in China.

Supporting this philosophy, a Learning Community model is the foundation for an emergent curriculum that supports and emphasizes constructivism. The underlying tenets include highly valuing children and their ideas, viewing them as capable, autonomous, and in need of teacher support rather than teacher direction. At YCIS, the East meets West in a learning and co-teaching model where one Chinese and one Western teacher are partnered. This approach to both curriculum and pedagogy leads to bilingualism — children take the lead in choosing learning experiences and in the language that is used when doing them.

The “hardware” or spaces, at the new campus supports this curriculum “software” — learning spaces are designed using flexible layouts that can change according to classroom activities and needs. This supports an agile learning environment where students engage in collaborative, community, and small group settings. The campus also includes a range of features that support student-driven experiential learning both inside and outside the building.

RENOVATION CHALLENGE

The design called for an extensive interior and exterior renovation of Shanghai’s old Gubei Clubhouse building as well as major site work, including a new a parent drop-off area, changes to parking and site access, and creating outdoor learning and play areas.

The interior includes a basement level renovation with a swimming pool, fitness room for upper secondary students and staff, drama theatre with seating for 200 people, music classrooms, recording studio, and rehearsal rooms for drama and music performances. The first and second floors now contain learning communities for all the young students. The third floor is partially enclosed with rooftop access, and now contains a spacious outdoor area, art classroom with connection to a commons area, administration offices and teachers’ lounge.

1ST LEED CERTIFICATION IN SHANGHAI

Ronghua campus was awarded the Leadership in Energy and Environmental Design (LEED) Gold certification from the U.S. Green Building Council and is the very first school campus in all of Shanghai to receive a LEED designation. An important environmental consideration for ensuring healthful learning spaces was the Indoor Air Quality (IAQ); as such, sensors around the exterior of the building continuously monitor the air quality, prompting targeted HVAC adjustments that can be customized and individually controlled.

DESIGNED FOR SURPRISE AND DELIGHT

The YCIS Ronghua campus is filled with spaces, amenities and education experiences that surprise and delight young students and inspire them to explore new ideas in a safe and nurturing environment. Details like color, window heights, surfaces and lighting are honed to the perspectives of the child, always leading them to the next opportunity for learning and play.

“By incorporating the forward-thinking Learning Community model, the campus provides an educational landscape where our young learners can explore and grow in an architectural space that adapts to the rapidly-changing outside world in which they inhabit.”

- Mr. Don Collins, Co-Principal YCIS Shanghai
Scope: 500 students | Cost: $14.3 Million USD | Site: 111,719 SF | Building: 94,023 SF
The design team began engagement with YCIS to plan and design schools in multiple cities at many grade levels. Early in our Discovery visit in 2015, the design team was inspired by Betty Chan’s presentation about the YCIS ‘Emergent Curriculum based on play and exploration. It was clear this Emergent Curriculum was present at the ECE schools we visited in Hong Kong, Beijing, and Shanghai. We noticed some self-directed learning taking place at the primary and secondary schools we visited, but not much evidence that the curriculum was truly student-directed. This raised an important question:

How can curriculum emerge based on individual student’s interest at all grade levels?

The team found that the Emergent Curriculum at YCIS is quite successful in Early Childhood Education since students are primarily engaged in play. The environment provides resources to spark their interests which teachers are then able to connect to curriculum. Extending this approach to Primary and Secondary education is far more challenging, as it is directly the opposite of traditional education models in China.

BARRIERS TO CHANGE

We saw two primary barriers for integrating Emergent Curriculum into Primary and Secondary School. One, teachers are too focused on covering the curriculum in a teacher-directed manner. This approach is rooted in the misconception that direct instruction is the only way to prepare students for test taking. The second barrier is that teachers are isolated from one another by organizational and physical structures. This prevents teachers from leveraging other teachers as resources. Overcoming both these barriers requires a systemic solution. Not only did the physical layout of the schools need to change, schoolwide policies and procedures needed to be updated. And most importantly, teachers and school leaders must have professional development to rethink how their individual pedagogical approach aligns with the environment for YCIS Emergent Curriculum.

CONSTRUCTIVISM AND PROJECT-BASED LEARNING

It was clear that the Emergent Curriculum has the potential to serve as a pathway to transform learning at the Primary and Secondary levels. As a result, this richly rooted educational philosophy is capable of providing students with learning experiences and an environment that allows them to excel academically while producing lifelong learners with the skills to thrive in the 21st century. Constructivism is a theory of learning where knowledge is created by the learner as they consciously strive to make meaning by interpreting and connecting new inputs with previous experiences. This theory directly relates to self-directed learning. In Constructionism, knowledge is created through building projects or products. It relates to project-based learning and learning-by-doing. Projects that students are interested in are self-sustaining. They lead to developing passions and interests which in turn, develops life-long learning skills.

THREE QUESTIONS GIVEN TO THE SCHOOL COMMUNITY

1. Where do we want to be? Where are we know? How do we close the gap?
2. Defining Learning exercise and exploring different models of learning
3. What is the ethos of China? What elements of this ethos should be incorporated into the design?

RESULTING KEY FINDINGS

1. The school community is interested in developing 21st century learning spaces, and a school in which the school leadership is strongly involved in directing pedagogy.
2. Flexibility, communication and critical thinking and problem solving are the 21st century skills that YCIS deems most important.
3. The ethos of China emphasizes positive values, caring, and global-mindedness.
Engagement Identified Education Space Solutions to Inform the Project

- Cave Spaces
- Future-Oriented
- Collaboration Spaces
- Distributed Technology
- Indoor-Outdoor Connection
- Multi-function Commons Areas
- Effective Use of Space and Storage
- Green Space: Rooftop Garden & Vertical Greening

- Individual Study
- Creative Production
- Group Projects
- Data Research
- Health & Well-Being
- Flexible Groupings
- More Space for Learning
- Connection to Nature
Educational Environment

The YCIS Mission: To raise globally competent and compassionate leaders with a servant’s heart, who aspire to, and act for, a better world.

A UNIQUE BLEND OF EAST AND WEST
At the root of the YCIS education philosophy is the blend of two major cultures, the East and the West. A YCIS student is immersed in Eastern and Western cultures while acquiring a high proficiency in English (including English as an Additional Language, EAL) and Chinese, resulting in high bilingual skills.

YCIS students gain a new and profoundly deep appreciation of the two spectrums. The organization feels they have a responsibility to provide a diverse learning environment that welcomes students from all backgrounds.

This system is exemplified in their Early Childhood and Primary classrooms with a unique Co-Teaching model that supports the development of students’ bilingual and cross-cultural skills. Their vibrant Chinese Studies program is based upon decades of extensive research and is integrated throughout the school curricula.

PRINCIPLES & PRACTICES: YCIS BELIEVES....

... that the core purpose of education is character formation, and it is the most important shared responsibility of the school and home.

... that each child is unique, with innate talents and gifts that should be nurtured to the fullest potential.

... that quality student-teacher relationships are at the heart of meaningful engagement, leading to highly effective learning and teaching.

... that Learning Communities best enable students and teachers to creatively and holistically explore different fields of knowledge, fostering individual and collaborative learning skills that are critical for the 21st century.

... in equipping our graduates with a deep respect for and understanding of world cultures, mastery of Chinese and English, plus proficiency in other modern languages, as well as a strong commitment to meeting challenges of their generation.

DEVELOPMENT OF WELL-BEING AND CHARACTER
YCIS places great emphasis on the holistic development of each student, mind, body, and soul, while nurturing globally minded individuals moored by a strong moral compass. In this process, connecting students to their own selves, each other, nature, and the local and global community is key. By balancing internal, moral development and global mindedness, YCIS seeks to enable the next generation of professionals to confidently take the helm and steer their way through human complexities, constantly exhibiting goodness, honesty, and compassion.

PLAY-BASED & STUDENT-DIRECTED LEARNING
According to the Emergent Curriculum model, students thrive when they are active agents of their own learning, driven by their own inquiry and interests. Students are engaged in play based and project-based learning all day at the Ronghua campus.

Worm Story: Early in our visit, we were inspired by Dr. Chan’s presentation about the Emergent Curriculum in the Kindergarten class at the Hong Kong Campus. Dr. Chan showed an example of curriculum emerging around the students’ interest in worms.

During their play, the students discovered a worm in the outdoor play area. The worm captured the students’ interest and stimulated wonder, which in turn, led to sustained inquiry. The teachers expertly recognized this and built curriculum for the students around their interest in worms, creating a rich learning experience for the students by weaving together multiple subjects and skills.

The students learned about worms in general, they learned how to research, and they learned about empathy and many other nuanced skills.
Indoor Environment With Collaborative, Flexible Space & Dispersed Technology
Outdoor Learning Space Encourages Both Play & Tactile Exploration
Physical Environment: A Radical Renovation

The design called for an extensive interior and exterior renovation of Shanghai’s old Gubei Clubhouse as well as major site work. What was once an abandoned and decrepit building has been reinvented as a vibrant and playful learning community, with only the foundation, floor slabs and structural columns preserved.
Physical Environment: Rooftop Playground

With a tight urban site, no space was left unprogrammed. The rooftop play area is a sheltered and sunny place to play for the upper level learning community. It also creates charming views from the interior, rather than those of typical utilitarian rooftops.
Physical Environment: A Site Designed For Play

Literally every square foot on the Ronghua Campus has been designed to emulate the eight design solutions from the Discovery Phase. The tiled section below right is also a water feature for warm weather splashing. Ledges double as seats, just the right height for the young students.
Physical Environment: Lower Level Active Spaces

This level is devoted to active sport and play for students of multiple age levels as a shared space with a separate entrance. It contains a swimming pool, fitness room for upper secondary students and staff, drama theatre with seating for 200 people, music classrooms, recording studio, and rehearsal rooms for drama and music performances.
Elevation - Before and After
Section: South

This section shows the structural columns from the building and how they informed the design.

Structural Columns
In order to create a safe and secure campus with more extensive outdoor learning spaces, a wall with a variety of densities was placed around the perimeter as an adjustment in the final phases.
The ECE entrance has a drop-off area for easy parental access. For safety and security, a completely separate entrance accesses the lower level sport areas that are shared with the upper grades.
Floor 1 Furniture Plan
Floor 2 Furniture Plan
Floor 3 (Rooftop) Furniture Plan
A Color Scheme Based on Chinese Tradition

In traditional Chinese art and culture, black, red, blue-green, white and yellow are viewed as colors with ancient cultural meaning. These colors correspond to the five elements of water, fire, wood, metal and earth, taught in traditional Chinese physics. The YCIS logo features blue and red, water and fire, and for this building the blue was designated as the main accent color.
RESULTS OF THE PROCESS AND PROJECT

The Entry is Friendly and Welcoming to the Young Students
RESULTS OF THE PROCESS AND PROJECT

The Interiors Have a Strong Relationship with Nature and the Outdoors
RESULTS OF THE PROCESS AND PROJECT

Signature Glowing Tray Ceilings Illuminate the Commons Areas
RESULTS OF THE PROCESS AND PROJECT

Details Like These Provide Surprise and Delight Throughout the Campus
RESULTS OF THE PROCESS AND PROJECT

Flexible Seating Is Easily Moved for Different Group Sizes
RESULTS OF THE PROCESS AND PROJECT

Windowsill Heights Were Carefully Designed to Allow Views at Child Level
RESULTS OF THE PROCESS AND PROJECT

The Outdoor Landscape Contains Highly Aesthetic Cultural Details
RESULTS OF THE PROCESS AND PROJECT

Outdoor Play Areas Invite Students to Explore and Develop Their Own Interests