

DESIGNING, CONSTRUCTING AND UTILIZING OF NEW LEARNING SPACES: SPACE AS A PLACE TO THINK WITH

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Our new Communication Center – a combination library, computer, theatre/presentation area, playspace and museum facility – opened in August, 1997. Of the various phases of creating our final building, only one might be commonly called "The Construction Phase" but I would like to propose that all phases were in a very real sense "construction" because they gave us the opportunity to take our ideas out of our own personal mental space and present them in various forms to others, then reflect about them again to ourselves, and again present them to others, constantly building and rebuilding them.

The nine teachers, office staff, and administrators who comprised our "Construction Committee" and worked together with the architects were all involved in different kinds of activities. The ways we viewed ourselves as teachers and learners were very different. The marvelous thing was that the participatory and interactive nature of the early stages allowed each of us to bring our dreams, philosophies and experiences into the design process and try to turn them into something real.

A Lifetime of Designing

During the two years previous to the opening, our committee members had attended more than three hundred hours of meetings relating to the new buildings. Together and separately, we had visited libraries, computer centers and museums in Canada, U.S., England, France, Germany and Japan over the past decade. Books and magazines had been read, videos watched, conferences attended, mailing lists joined, friends and strangers consulted, and visions conjured up. Personally, when someone asks me how long we had worked on the design, I'm always tempted to answer, "A lifetime".

It was mostly in this first phase where enthusiastic constructing took place. All the ideas that ever danced in our heads were suddenly given the opportunity to fly out and take on shape. Which thoughts were worth animating? How could we know if we didn't give some effort to developing them? Knowing (or imagining that we knew) what to develop and what to let go was sometimes energizing and sometimes exhausting. When should we stop trying to help others envision our own dreams? What dreams were worth envisioning? I believe I could easily fill this paper with the dynamic questions each of us wrestled with. When I look

at the resulting buildings and think of some of the confusion I felt, I'm indeed amazed, not only that the results are what they are, but that anything was created out of the myriad mazes we explored.

Early Stages – Dreamy Designs

In the early stages of design, we avoided talking about costs totally. In fact we were instructed not to talk about money, but to envision our ideal learning facilities. For many years some of us had been trying to provide a computer for each member of our community. We also wanted each school space and dormitory to be wired. Some of us envisioned a huge high definition TV above the entrance to our school that would display school news and announcements before class and broadcast student performances and presentations at lunch and after school. Each classroom would have a projector so that anyone's computer screen could be shown to all the learners in the room. All spaces, both new and old, would be built or re-built in ways which would encourage group collaboration. These were some of our early dreamy designs.

Naturally, as we began to think about money, we were also forced to prioritize our goals and the equipment we thought was most necessary to achieve these goals. For example, we started by giving one computer to each of our full-time teachers. All other members of our community had to share about 150 computers – roughly 1 computer for each 10 people. However, we are still actively searching for ways to achieve our original goal. There's no huge high definition screen in our plaza; not even a small low definition screen there! That, too will have to wait for the future. Not all of our hi-tech dreams were easy to let go of! Learning to compromise with other members, each one giving up some of our favorite ideas, was a good lesson for us in group collaboration.

Throughout the process of construction, we constantly bumped into our own beliefs about learning. Every time we created a space or chose a shape or color, our thoughts about education were part of our design toolkit. No one said, "Well, I believe that by creating a collaborative atmosphere here, Piaget's ideas about students learning experientially would be able to come into". But in fact, certain philosophical underpinnings came to be accepted by us all.

Active Communication Spaces

For example, it was clearly understood that all design aspects should support active communication (at least in any ways that we had awareness of). In talking about the color of tables or carpets, one of us might say, "The colors we have right now in this section are too bright and conflicting". So it was clear that person valued some calmness in the mental state of their students. Naturally, various personal and cultural tastes came into play in our choices. Conflicts arose leading

to marvelous compromises. Sometimes we hit on a theme that all of us were immediately attracted to: other times we listened and tried to give voice to a variety of ideas. Early on the theme of "mosaic" came up as a metaphor for our students and our philosophy. The architects took to this metaphor with such enthusiasm that we finally had to tell them – "Enough with the mosaic motif already"!

In reflection, it occurs to me that we developed this stage in a way that encouraged our own construction of a vision of ourselves as designers. We thus became aware of ourselves as actors on the educational stage, rather than simply passive receivers of someone else's ideas. As teachers we were used to walking into a room that had been designed by someone else. The size and color and style and placement of furniture were chosen by someone else. In many cases even the choice of lessons and styles of teaching were not seen as being in our control.

Relationship With Architects

We might have easily fallen into this pattern in our relationship with the architects. The same company had, in fact, designed our first buildings more than fifteen years ago. They were ready to tell us exactly what was going to be built. However, over the course of an uncomfortable first half year, we made it clear that the architects were there to give life to our visions of learning. This took some getting used to on their part, because, at least in Japan, it is usually the case that clients mostly accept the decisions of architects without question.

For us, we tried to present our visions at every step of the design stage, and even beyond into the construction stage, though of course, with varying rates of success. My favorite story about this is, after more than 300 hours together talking about our educational philosophy and what we really wanted to do, at the opening of our Communication Center, one of the chief architects came up to us and, looking around wide-eyed at the Center, said, "Now I see what you were trying to do"!

Builders of Our Own Environments

The point I'm trying to make here is for me the key point of this experience. Taking this position as constructors of our own environment was a very empowering activity for us. It had to change us as human beings and affect our relationship to the process of teaching and learning and to our students.

Sherry Turkle comments about the game SimAnt, that it "gave people something concrete to play with" (See endnote 1). In the same way, designing our new Communication Center gave us something concrete to think about (even before

the concrete started to flow). How deeply and in what ways each of us have been affected is something I choose not to generalize about here, but would rather let unfold with time, and perhaps someone else's research.

A few days before I was to give a talk about the Center, I was showing some new friends around. Afterwards, over a cup of tea, one asked, "So what do you hope to do here with all this great equipment" (See endnote 2). The other added that this was what Seymour Papert had envisioned back in the early 80's, a place where computers would be as accessible as pencils. But always the important question for him was, "What do you do with them?"

At this point, I'd like to discuss some of the educational underpinnings at the heart of our Center. One of the main goals of our new center is to bring all kinds of media into the educational process, and thus affect the learning process and the learners themselves. In order to understand this well, it is helpful to examine our history, our special facilities, and our educational philosophy and goals.

Doshisha International was founded in 1980 as part of the Doshisha family of schools. This means that both Christian principals and an international perspective underlie our educational system (See endnote 3). Our specific mission was to create an environment where "returnees" (Japanese children who had lived some significant portion of their lives outside of Japan) could re-enter the Japanese culture and have their unique experiences appreciated and developed. Approximately 2/3 of our students have lived and studied outside of Japan, and they bring an amazing range of experiences to our school.

Building a New Kind of Education

Some of the teachers and staff at our school have been believing (See Endnote 4) from the start of our school that helping the students build on their bi-cultural views and bi-lingual skills meant developing a new kind of education, and have been trying to do this at every possible chance. With the creation of our new Center this chance came. Naturally, when our school opened there was a library, but as our school grew (a junior high school was added in 1988), the library became much too small. The use of computers began in 1981, and we were pioneers in the use of Logo and in telecommunications. We started with a few computers in a tiny half-classroom space. Ten years later, and after we were chosen to be a part of the 100 School Project (a governmental initiative to encourage the use of technology in the classroom), we had 25 computers connected to the internet in a new Cooperative Design Center that was large enough to hold a full class and, in some ways, became a model for our Communication Center.

However, from the beginning it was our philosophy that computers and books were different forms of media that should be available to all learners. At the top

of the list of important "media" was human communication. This has always been an important factor in our educational and design thinking. Thus our library space and Cooperative Design Center were not seen as "quiet" places, but rather as lively areas where learning was a social activity.

From the beginning, we chose laptop computers, rather than desktop computers so that the atmosphere of the room was not of a "computer lab", but as a space for people to communicate with each other, sometimes using computers and sometimes other media such as books and video, but most often just the media of their own faces and voices relating their ideas. Furthermore, we rejected the idea of "computer literacy" for the same reason that we didn't have classes in pencil literacy or paper literacy (See endnote 5). Rather we have encouraged our teachers to integrate computers and technology into their classes.

Over the past ten years and especially since 1994, we have been thinking about how to plan a new space for learning. The physical and mental shapes we have given and will be giving our spaces hopefully reflect our educational philosophies.

Respecting Learners

First, we want to give learners respect – respect for their unique experiences and unique way of viewing the world. Of course this applies to our returnees, but to our "general students" who are equally, filled with the energy and ideas of youth. Respecting our learners means that we have designed a center with them in mind, where they can freely express their ideas and will feel that their ideas will be seen and heard.

Secondly, we want to give our learners power – the power to think, the power to use the new media tools that they see all around them, the power to develop their own ideas and the power to present their ideas to others dynamically. Empowering our learners means that we have designed our Communication Center so that our spaces encourage particular kinds of activities. Because different teachers and students have different approaches and needs, we have tried to make all the spaces as flexible as possible.

Focus On Learning, Not Teaching

One constant is that discussion among learners is optimized. Most tables are rounded, encouraging face to face communication. These areas are not "teacher-centered", but very much "learner-centered". That is our focus is on learning, not teaching. Our Communication Center Staff and Teaching Staff become guides. The idea being that forcing one particular kind of information on students creates dependent and passive learners, but by guiding and supporting students' own learning activities, we empower them to be creative and independent learners.

Also, Because They Are Given

Respect, they also learn to respect each other and a wide range of ideas and cultural perspectives.

Major Activities of the Center

There are three major kinds of activities that we see taking place in the Center. These activities are not exclusive from each other, nor sequential, but they are all important in our educational philosophy.

1) **Research Related Activities.** These involve planning, thinking, writing, use of various media including memories of the learners' own experiences, and interactive discussion with learners from various cultures who hold various points of view. What in many classrooms and libraries is often a one-way activity of information moving from knowledgeable person (teacher) or knowledgeable text (book), now becomes an interactive process of gathering information, thinking, and evaluating such information.

2) **Creative Activities.** In some learning environments, activity stops when information is gathered. The important thing in such environments is to write down this information, memorize it and repeat it on a test. A traditional classroom with a teacher talking in front or a quiet library space might encourage this approach to learning. In our Communication Center, we want to encourage a more active approach.

Creative Research

For example, when doing research, we want our students to have their own ideas and not just to repeat the idea of others without thinking. Furthermore, we want our students to be able to express their knowledge in a variety of ways, first in ways that fit their own learning style, and gradually in ways that provide effective communication of their ideas.

3) This brings us to the idea of **Presentation Activities.** It is our belief that the usual kind of Japanese school examination, which basically depends on memorizing information, is only one way to have students express their knowledge. We want to give them the opportunity to take the ideas of others, examine them critically, combine them with their own experiences, and then externalize their new ideas in creative ways. Such ways of externalizing might be use of internet for homepage construction creating a video, writing a computer program story/puppet show, designing a museum exhibition, or publishing a report that will become a part of our Communication Center's own material.

Presentation of Ideas

Let's look a bit at what this does to a learner to have the power to see his/her own ideas presented in a way that is respected. When our own book becomes a part of a library, it teaches us something about information and knowledge: for example, that everyone possesses knowledge that needs to be respected. Also that printed/published information needs to be examined critically and not swallowed whole. Having this intimate and personal experience in constructing knowledge, learners can understand that our knowledge is incomplete. These are ideas that are vital to learners in our new information age!

Another thing that happens to learners in this kind of environment is that they see the process of learning emphasized more than the results. Feedback and re-development, re-thinking and re-doing become important aspects of the learning process. Studying all night for a test and then forgetting everything one minute after the test becomes a shallow way of learning, one which is unfortunately too common in the Japanese educational system. We want our students using the Communication Center all the time, not just one week before examinations!

These are some of the ideas that we have had in developing this new Center. One important thing for those of us who were involved in creating this learning space is that we ourselves were exposed to these ideas and experiences through the process of construction of this space. We are hoping to give a similar empowering experience to our students through the way we design our experiences together. It should be noted however, that no matter how much and how carefully we designed our Center, the surprises we had and the opportunities for extending our ideas beyond what we were able to imagine at each stage, have constantly been presenting themselves. Construction, as learning, is an empowering, never-ending process.

REFERENCES

1. Sherry T. *Life on the Screen*. New York: Simon and Schuster, 1996: 10.
2. From a conversation with Annette Dula and Mark Gross. January 17, 1998.
3. Both these terms "Christianity" and "internationalism", have as many different meanings as they do proponents. In the case of our school, it is enough to say here that there is no single interpretation forced on our community.
4. Sorry. I am believing that this verb needs to have a progressive tense!
5. As far as I know, this analog should be credited to Seymour Papert.