Theory vs. Bricks and Mortar – Forming, Norming, Storming, and Performing

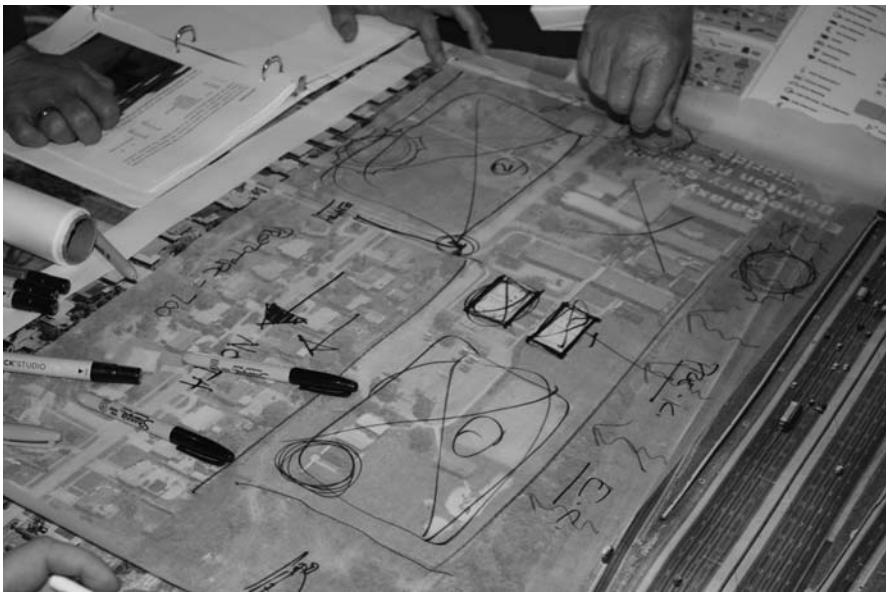
The CEFPI Multiple Learning and Multiple Intelligence Design Charrette

By Philip Robbie and Fran Pickett

A charrette (pronounced shuh-ret) is a collaborative planning process that harnesses the talents and energies of all interested parties to create a shared vision and a feasible plan for implementation. The charrette consists of an intense period of design activity where variables are clarified, reasonable limits established and collective decisions made.

At the Council of Educational Facility Planners International's High Performance Schools Symposium held in Tampa in February 2009, conference organizers utilized an interactive presentation style that merged theory and practice using charettes. The challenge was to engage over 100 individuals with varying experience in educational facility planning and present them with theoretical information on multiple intelligences and learning styles. And then, ask them to integrate the theoretical framework into a real-world school project in just 4.5 hours.

The utilization of actual case studies reduced the distance from theory to market, and participants were challenged to apply what they had learned. Each attendee joined a group that was asked to develop an optimal design solution for supporting multiple intelligences and learning styles for a pre-selected case study. The groups worked on their case studies in three 90-minute sessions, and then presented the results to the body of the conference and a panel of jurors.



A sketch created during the charrette.

Alongside this exercise, in addition to the educational theory, other high performance school concepts were presented in sessions on furniture, daylighting, acoustics, environmental and air quality, HVAC, and ergo-dynamics. The groups' final designs demonstrated the various forms the school case studies might take if designed with these high performance school principles.

The charrette experience provided opportunities to present real solutions that apply multiple learning theories and principles into existing bricks and mortar. This, in turn, significantly increased the likelihood of school districts and designers integrating these concepts into their building programs.

The case studies were developed to reflect the constraints of

working on campuses in the State of Florida. Before demolishing aging, antiquated buildings, permission must be granted by the Department of Education (DOE). For the case study sites, there were "orphan" buildings that were required to remain standing. Re-purposing or incorporating them into the overall master plan was the challenge of the charrette teams. The following were the *real-life* scenarios presented to the different teams:

Galaxy Elementary School in Boynton Beach, FL, is bordered by I-95 to the west, private residences to the north and east, and a four-acre gopher tortoise conservation area to the south. The original buildings were constructed in 1958 and are recommended for demo and replacement. However, two of the buildings, 7,304 square feet and 5,952 square feet are newer and must remain. The district would like to convert these two buildings for two separate programs. One, as a pre-school and the other as an environmental studies center for student field trips.

Lake Weston Elementary School in Orlando, FL, is a 50-year-old school built in 1958. The site is totally land-locked and permanent structures are supplemented with 16 portable classrooms. A 5.4-acre parcel to the west of the site may provide additional land. It is designated as a "Full Service School." Full Service School projects are located in all 67 counties. Since 1990, this program has provided the infrastructure necessary to coordinate and deliver services for children and families. The program focuses on underserved students in poor, high-risk communities needing access to medical and social services. The media center that is to remain was constructed in 1983. It is 3,169 square feet and is in the middle of the campus.

Facility options for Osceola Magnet School in Vero Beach, FL, include a decision to rebuild the school on the existing 15-acre site or the relocation of the school to a larger developer-provided, vacant site about six miles west of the existing school. There are no students zoned to this school and attendance is purely by "choice." There is a parent commitment letter that is required to be signed annually and school uniforms are mandatory. With either decision, the buildings to remain are a media center (4,745 square feet), multipurpose room (2,493 square feet), and a two-classroom modular building (1,728 square feet). If the direction is to rebuild at the new site, the challenge will be to suggest a community use for the remaining buildings.

New designs and plans were developed.

The primary goals of the design charrette included:

- Achieve an understanding of multiple intelligences, how they are different yet equal.
- Demonstrate how the built environment can support the different ways children learn.
- Achieve an understanding of the variables that create a high performing school.
- Identify the character of learning-centered spaces for the different learning styles.
- Demonstrate how three distinctly different real world projects could be adapted to multiple intelligences.
- Articulate the group's solutions clearly and concisely, anticipate and be prepared to answer the questions of jurors and school district personnel concerning the proposed design solutions.

The CEFPI charrette exercise was led through classic (but abbreviated) group development phases, "forming," "norming," "storming," and "performing," but with only four and a half hours to complete the design, the first three of the phases moved quickly, and the majority of the time was spent in the "performing" phase:

Forming was an opportunity for group members to get to know each other and collectively accept their task, as well as identify the steps they would take to complete that task. The forming process created an awareness of skill sets, personality types, and team structure. In this phase they were able to establish who among them was the artist, moderator, planner, writer, poet, and facilitator.

Norming involved the group's discussion of how they would work together establishing rules (norms) and an acceptance of members' roles and responsibilities. Norms increase the success of the group process and reliance on "team," which increased the success of the group's task outcome.

Storming occurred as the groups became deeply involved in their tasks. Interpersonal communication heightened, roles were redefined, the teams gelled, aspirations and goals gained clarity, and in

One of several diagrams created during the charrette.

some cases mild conflict occurred. Groups moved beyond surface level discussions and became serious about their tasks, working through difficult underlying issues and focusing on the goal and the criteria for meeting that goal. There was a marked movement away from personal opinion.

Performing was the point at which the groups were solidly moving forward – a harmonic convergence of individuals to obtain group aspirations. Group members operated at a heightened state of productivity and motivation, progress was made toward the goal and the momentum was on the group's side. At this point, ideas were put on paper and the high performance school designs became tangible.

The charrette followed anticipated methods of development. A comfort zone was created by addressing known materials and site planning rationale. Once that base was established, the integration of multiple learning styles began and it was quickly discovered that some styles supported each other and some did not coexist well.

Each group was asked to utilize a combination of icons representing multiple learning styles and multiple intelligences when presenting their design solutions. The groups were given the same tools and instructions, yet each created a unique project character, and the variation between solutions was rich, diverse, and replete with possibilities.

Each group selected a team member to present their design solution before the remaining participants and a jury made up of school district personnel from each of the case studies and the various educational experts speaking at the conference. Jury comments and the variety of solutions generated through the charrette is available at http://www.cefpi.org/i4a/pages/index.cfm?pageid=4338.

The charette, like the participants, represented a rich variety of solutions, some more grounded in the realities, others more theoretical. Large-scale site utilization to achieve high performance learning environments was juxtaposed against micro environments. Some groups presented symbols, others used diagrams, some depended more on the spoken word, while others displayed site, floor and room configurations in rich detail.

Participants left with a thorough understanding of the concepts that make up a high performance school. The true test, however, is yet to come. The triumph or failure of the charette will ultimately be measured by the successful implementation of the high performance school concepts into upcoming projects where the end users, the students, will validate these aspirations. ■

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Philip A. Robbie, AIA, LEED AP, NCARB serves as Director of Design for BRPH Architects-Engineers, Inc. As the firm's facilitator, Mr. Robbie utilizes design charrettes in his collaborative design approach, effectively integrating design strategies, disciplines, and all stakeholders capabilities.

Fran U. Pickett, REFP, is Vice President, Education for BRPH Architects-Engineers, Inc. In K-12 school facilities planning, Ms. Pickett serves as the facilitator of planning meetings with school boards, their constituents, end-users and designers. She is one of only eight educational planners in Florida to be certified as a Recognized Educational Facilities Planner (REFP).