Exemplary Student Projects
integrating learning with community building

Four decades of organizing Canadian and United States high school and university students' collaborative work with local professionals, municipal staff, business owners, and neighborhood activists informs Living2Learn's work to integrate community-driven, project-based learning into K-12 classes. As students give new meaning to education, for that matter to life-long learning, they help community members see opportunities they hadn't previously thought of and discuss the potentials found in those opportunities. So adept at generating data-driven design scenarios, organizing and leading focus groups, interpreting people's wishes into visuals and three-dimensional models, and delivering public presentations Bob Scarfo's students were sought after by rural towns (Dayton, Rosalia, and Toledo, Washington), neighborhood associations (Hillyard, Morgan Acres, and more in Spokane, WA), nonprofits (Boy Scouts of America, Washington Children's Society), and government offices (Spokane Regional Health District and Washington State Department of Transportation).

Client groups' appreciative comments on students' community-building projects led us to believe that our form of service learning accelerates change. A year-long review of meetings' transcripts and news articles failed to provide us with a direct connection between student involvement and accelerated change in the community. Anecdotal evidence, however, came from many sources. Past Spokane Mayor Mary Verner noted that without students' involvement the Hillyard neighborhood would likely not be as far along in its revitalization efforts as it is. "As far along" meaning the $17.5 million face lift to the historic downtown carried out in 2009. Business consultant, J.R. Sloan commented, "The students' work upgraded the level of discussion in community meetings. It's not a question of 'if' something will or can happen; it's a matter of 'when and how' this or that concept will come along." At the conclusion of one 14-week collaborative effort, neighborhood residents' comments echoed businessman Bob Lawrence's observation that "Without the students' help and presentations we would not be where we are right now….I am not the most informed person as to what is happening in the neighborhood but I see a difference through their work." Dave Griswold commented that "The students pushed us so far ahead of where we thought we'd be." And, Luke Tolley provided the best summation. "Has the students' work contributed to shortening the usual amount of time it would have taken to move our






ideas forward? Yes, absolutely. Using pictures, instead of relying on people's imaginations alone has had a great effect on people's acceptance of these ideas and plans. I believe the students' efforts took people otherwise on the fringe and brought them into the effort."

Living2Learn is driven by the premise that students' classroom learning be balanced by their contributions to their community. Realizing this premise blurs the lines between classroom and community to the extent that the community becomes the classroom and vice versa. Our aim to integrate students' learning while they contribute to their community, local organizations, or region's informed views of the future takes three forms: community driven, student generated, and instructor initiated. Examples (below) of each form of project-based service learning exhibit the potentials that grow out of the collaborative teamwork of students and their community partners.

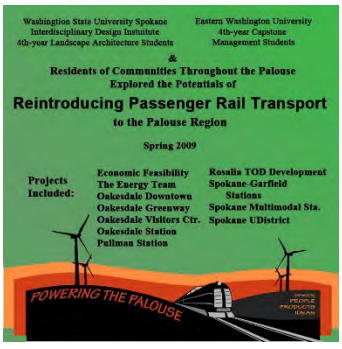
Instructor-initiated Projects

Teachers, instructors, and professors often have more informed views and more life experiences than their students of local, regional, and global opportunities and are better able to initiate studies resulting in an improved future. An awareness of emerging global trends and their influences on local and regional wellbeing led to such instructor generated projects as:

Senior-friendly Spokane, 2000

Eighteen years ago no one in Spokane admitted to the fact that 70+ million Baby Boomers were coming to retirement. Combined with Spokane's recognition as one of the United States most affordable cities, it was easy to see how the city, if not the region, could become a retirement destination. Teams of architecture, landscape architecture, interior design, and nursing students accepted the task of developing senior-friendly design scenarios for Spokane's urban core as a retirement destination and shared them with city staff and business leaders.

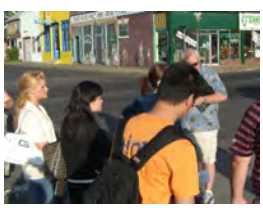
Powering the Palouse, 2009



Old rail lines, now only used for freight, exist throughout eastern Washington State. Passenger rail had long since ended, although people remember the Football Train that ran partiers between Spokane and Washington State University, 75 miles south. In 2009, peak oil and energy scarcity were appearing on people's radar, so I asked design, engineering, and business management students, "What would the return of passenger rail look like in central and eastern Washington?" The teams quickly realized that transit engineers only studied the movement of goods and







resources. They did not consider such “externalities” as the potential residential and economic growth of the rural communities along the rail lines. Each of four student teams adopted a rural community along the existing rail line connecting Spokane, WA with Moscow, ID. Each team introduced itself to town leaders, scheduled and carried out a public focus group, and used feedback to develop rural town center designs that showed the development potential with the return of passenger rail. The Washington State University design students sought the help of Gonzaga University engineering students and Eastern Washington University marketing students. The students’ work captured the most media coverage we had ever experienced. See https://magazine.wsu.edu/?s=Powering+the+Palouse

Urika Health Train

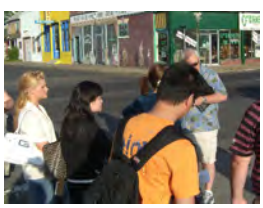
The growth of the health sciences on WSU Spokane’s Riverpoint campus made us aware of rural health issues. The project’s challenge was to retrofit a Pullman rail car so medical and dental staff (and student interns during the summer months) could be delivered on rail sidings to rural communities. Three teams of interior design students worked with nursing and dental hygiene students and faculty. The students toured a local historic rail museum, looked at Pullman car construction, visited a Winnebago dealership to see how multi-use spaces were designed, studied historic documents of the interiors of Pullman cars, reviewed medical and dental procedures, and reviewed alternative energy sources and hazardous waste disposal regulations. The teams decided to add a flatbed to the Pullman medical car to carry smart cars that allowed staff to make house calls in the countryside surrounding wherever the Health Train stopped.

Taking advantage of the fact that students make for good sound bites, local news outlets and social media were employed to educate the broader public to the importance of admitting to a rapidly changing future and a need to let go of the status quo.

Student-generated Projects

Students’ sensitivity to their surroundings provide a basis for many community service projects, senior projects, and thesis topics. Across 40 years, student-generated projects contributed to over 50% of my university students, and the high school students who worked on projects with my university students, to discover personal directions toward technical training, college or university areas of study, and employment. One and two-semester long student projects grew out of kids’ hometown issues, current news stories, or family projects. A sample of projects includes:



Play that Teaches Sustainability in Accra, Ghana: a two-acre lot between buildings in downtown Accra provided the setting in which local leaders wished to develop a playground based on sustainable principles. The design student was charged with employing a sustainable approach to the playground's layout and facilities. Play facilities were to use local resources and play activities were to impart an appreciation in the kids for sustainable living.

Increasing Crop Yield in Sierra Leon: this study looked at how permaculture practices could inform the design of an actual co-operative farm with the goal of boosting yields, identifying resources that could be reused and recycled, and providing training programs to local farmers.

Growth No Growth Tri Cities, WA: this design student wished to move back home after graduation and become employed as a city planner. The existing approach to growth in his hometown was typical sprawl. He was aware of the growing loss in land and negative potentials regarding food, energy, and water. He wanted to see to what extent "No growth" principles could be applied and still allow for economic growth. He was guided by an excellent test case in Portland, OR.

Lincoln Heights Community Redesign: this existing small shopping mall is automobile dependent. Yet within a 15- minute walking radius lived thousands of residents. With an understanding of rising oil costs, this student worked with the neighborhood association to test smart street and walkable design principles in the redesign of the Lincoln Heights Shopping Center to make it more shopper friendly.

Residential Design in Wildlife Habitat Areas: residential development had reached Montana. Animal habits and migration routes were being broken. The design student's environmental concern had him working with an environmental nonprofit institute. The question driving his design study was, "Could residential development be directed through nature-sensitive design principles in ways that allow developers to make a profit and not interfere with animal and plant systems?"

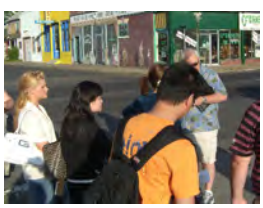
Reclamation of Old Quarry Site into City Park: a closed quarry operation was to become a public park. Safety issues and seasonal flooding provided both challenges and opportunities. The student worked with City and park officials, applied an ecological systems approach, and worked up a proposed design that, after her final public presentation, got her a job offer from the City.

The above projects all, to some degree, meet Common Core, Next Gen Science Standards, and 21st Skills.

Community-driven Projects

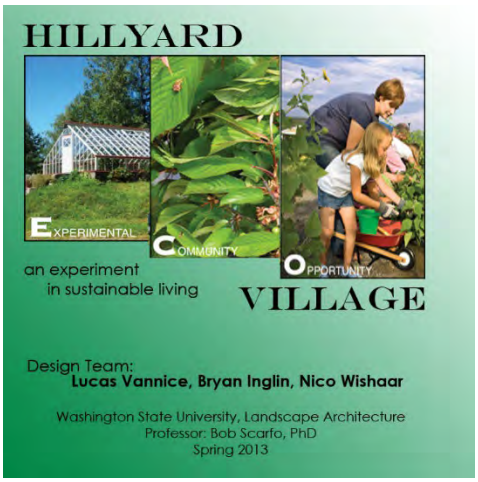
A lack of human resources, available time on task, and innovative points of view drive many community groups and organizations to request design-student teams help them solve problems, test ideas, develop new products, and explore what the future might look like. Such requests are taken on if the



projects contribute to learning objectives and those making the requests are willing to work with the students. These projects are particularly interesting in that the community members are tremendous role models, and their projects allow the building of truly diverse teams drawn from multiple universities, highs schools, and local professional and technical experts. Even more intriguing to primary and secondary educators is the extent to which most community-based projects can be shown to meet Common Core, Next Generation Science Standards, and 21st Century Skills. Examples of such projects include:

Hillyard Village



Generated by a local business owner and futurist, the Hillyard Village project was to be a 100% off grid, self-sustaining village. On Track Academy students collaborate with WSU students and Hillyard business owners and residents. See: https://www.youtube.com/watch?v=Ci_VvUS5ePI Vacant land owned by Spokane Public Schools was proposed to be built upon as the Hillyard Village living experiment. Agreements were made with various City offices and State Public Health. The idea was to lease the land for 5 years, if unsuccessful or need the Village would be dismantled and/or moved. In the end the School District disagreed with the project. Even so, students worked with chemical scientists, food production specialists, water and waste professionals and more.

2017 KXLY Public Radio Science Hour

Five On Track students prepared five 55-minute interviews with professionals, business leaders, and hobbyists on science topics that ranged from beekeeping to nuclear energy. Students selected topics they felt would be of timely interest to the community, prepared interviews, visited speakers on site, and delivered a scripted radio show. They worked in studio with professional radio hosts and technicians. Given my connections throughout the city and region, my responsibility was to locate the best potential speaker for each of the student teams topics.







Sprague Lake – Washington State Department of Fish and Wildlife (built): what for the two students started as a disappointment turned into a project used by WA State Fish and Wildlife over a ten-year period. The original design request was considerably smaller than the students had been led to believe. What guided the project was a simple question, "What if the initial product is so successful it has to be followed by phases II and III?" The beauty of landscape architecture is that the products grow. They are ecologically grounded, and they mature in various ways over time. This was the lesson learned here as the students worked within the dynamics of shoreline ecology, fish and wildlife habits, and the idiosyncrasies of public involvement in these systems.

Dayton, WA Downtown Restoration (built): an initial request for a simple design for a relocated historic schoolhouse turned into a series of public design meetings, measured drawings, and final master plan for a portion of Dayton's historic downtown.

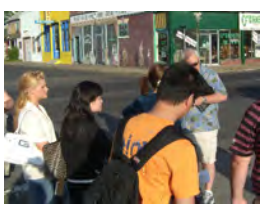
Northeast Community Center Reception Area (built): Spokane's Northeast Community Center (NECC) had been renovated. The staff had problems with the new receptionists' work area: movement, interaction with clients, and sense of safety all needed to be addressed. Three interior design students worked outside of class with NECC staff. The final built product is still shown off to visitors by the Director.

Morning Star Boys Ranch (built w/modifications): the master planning of this facility for troubled youth received a $50,000 Charlotte Martin Foundation grant that supported two landscape architecture seniors work with the youth and staff. The youth were involved in land use planning and design principles, site walks, and development of a year-round program that comprised nature trails, playing fields, public circulation, future housing and activity areas, and horse training and grooming facilities for a new youth training program.

4 Neighborhood Projects: this project was an epiphany. Four different neighborhoods approached us at the same time. We promised to meet their needs, maintain a sense of place and neighborhood identity, and integrate design features that anticipated emerging global trends (water and energy scarcity, aging, obesity, and climate change). The epiphany occurred at the conclusion of the initial meeting between 20 students and a total of 36 neighborhood residents. After each student team self-selected a neighborhood with which to work, everyone started to leave. I told them they couldn't leave, they all needed to share contact information. From that moment on, the teacher was no longer the intermediary, the students spent more time with their clients then they would have normally in formal studio meetings. I became a consultant to the students and at times you really couldn't say who was a student and who was the teacher. Responsibilities kept shifting throughout the







course of the project. The students became so close to their clients that the project ended with the students wanting a guarantee that their work would not sit on a shelf.

Bob's two favorite projects:

PUSH for PD – 24-bed facility for folks with 3rd, 4th, & 5th stage Parkinson's disease is probably my all-time favorite project because of the people, their comradery, compassion, and collaboration. The request by the Seattle nonprofit, at the time called PUSH for PD, was to develop design studies for a care facility with specialized needs and maintain a sense of "home." At one point the design team comprised architecture, landscape architecture, interior design, and nursing students from one university, business and marketing majors from another university, practicing doctors, nurses and pharmacists, and a cadre of local people living in various stages of Parkinson's disease. The studies satisfied the client's' wishes to the point they decided not to purchase the land under consideration. Its shape would not allow for the best final product to blend medical protocols and clients' personal sense of home.

Hillyard Neighborhood ($17.5 million rehab of downtown): our most prolonged partnership. Eight years of design studios were devoted to working with the residents, business owners, and alternative high school in Hillyard, WA. Slated to be divided by a north-south freeway, the neighborhood's organizations and associations wondered "What were the opportunities that could be taken advantage of and what would they look like? "The students' work was so good that we were asked to provide student teams as liaisons between the community (working to turn their wishes into designs) and the Washington State Department of Transportation. Portions of student work are slated to be built, potions have been adopted by WSDOT with modifications, and all the designs are cataloged and periodically referenced by the community as work progresses.

Today & the Future

Today, community-driven, project-based service learning has a lot to offer the current state of standards-driven K-12 and STEM education along with the economic and social vitality of many communities. Global trends are forcing changes, and often unplanned changes, the consequences of which call for first-time-ever approaches to policies, processes, planning, and production. In turn, the yet to be determined first-time-ever approaches call for ways of questioning, exploring, interpreting,






and implementing or what Bev Clevenger, Director of Education and Programs at Spokane, Washington's Mobius Science Center outlines as: curiosity, confidence, competence, and courage. These are youthful traits lost in many adults.

Few recognize the intellectual and human resources capable of taking on the challenge of giving form, character, and content to the future found in every community's youth. Benefits to rural, suburban, and urban communities engaging their K-12 youth's creative and innovative energies include:

- Youth get to sample a variety of potential personal, employable and educational futures;
- Education becomes a community endeavor building social capital and greater resiliency;
- Kids transition from consumers to active contributors to their community;
- Student engagement in learning is enhanced through place-based authentic experiences;
- Initiation of a combined intellectual-economic system with the proven potential of building new industries and workforces;
- Potential development of a revenue stream in support of education;
- Existing technologies link urban, suburban, and rural students with home schooled and private school students in collective or competitive problem-solving collaborations;
- Bringing into service an underutilized human resource;
- Transformational learning that engages youth in the community in which they reside;
- Youth and adults socialization in an environment in which life-long learning becomes an integral part of everyday practices; and
- Accepting as common practice the integration of diverse age groups in the production and testing of policies, processes, and products needed to meet the future.