Incubator Without Walls (IWW): A University-Business Partnership for Neighborhood Redevelopment

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Abstract

A business incubator was launched serving existing and potential businesses in the Community Outreach Partnership Center (COPC) target area. This incubator is unique through its use of faculty-student teams engaged in community service learning. Because the incubator does not have a central office, we have called it an incubator without walls. Under the direction of College of Business faculty, in the initial term, student teams approached 26 existing businesses and 67 potential businesses. The team projects were evaluated by outside faculty and several were referred to potential venture capital funders. Follow-up interviews by COPC faculty and staff for quality assessment demonstrate the high level of satisfaction the business owners felt towards the process. Due to the success of the incubator, the faculty is faced with the challenge of managing the project in a virtual environment sooner than they expected.

Incubators assist existing businesses and develop new businesses in the community. Most incubators do this by providing centralized, shared office space and services. The San José State University (SJSU) Business Incubator is unique: Incubator staff offers services both onsite (at the university) and offsite (at the business site). This is what is meant by Incubator Without Walls (IWW). The IWW is a learning commodity available to any

existing small business or potential business within the designated Community Outreach Partnership Center (COPC) target area. In essence, the College of Business has developed and tested a structured framework for institutionalizing the process of enabling student teams to assist neighborhood businesses in solving important problems.

The business incubator center serves and encompasses SJSU and the entire 360-square-block COPC area in central San Jose. The area contains approximately 40,000 residents. There are more than 350 licensed private businesses with three or more employees. They employ more than 9,000 people. The businesses represent 38 separate two-digit SIC (standard industrial classification) codes.

Faculty and students serve as consultants; the classroom is their launching pad; their laboratory is wherever the client chooses to meet. The payoff for the students is class credit and real-world experience working on actual business problems. Clients receive help with business planning, development, market research and promotion planning, business operations analysis, human resources, computer training, and modernization recommendations. The IWW project is also commissioned to provide a yearly language-appropriate management course based on the needs of the community. The project also hopes to create an inventory of qualified accountants, lawyers, and other business owners who act as mentors to help solve day-to-day problems of setting up and running a business. The services where fees are required would be available on a sliding scale. For the duration of the project, our goal was to involve and assist 100 businesses. By the end of the second year we had exceeded our goal.

San José State University is located in the heart of Silicon Valley and has consistently provided the largest number of business graduates to local companies. Founded in 1857, it was the first public institution of higher education on the West Coast. It is the university's mission to serve the region as the Metropolitan University of Silicon Valley. SJSU is a member of Campus Compact. The university's 26,000 students study in eight fully accredited colleges: Applied Sciences and Arts, Business, Education, Engineering, Humanities and the Arts, Science, Social Science, and Social Work. SJSU's diverse population is reflective of the IWW target population in which the students work.

Many organizations have come together to begin revitalization work in the area surrounding the SJSU campus. The SJSU COPC has partnered with these organizations to strengthen community efforts to enhance living conditions. In the area of business, the East Campus Commercial Organization, which began in 1993, met with COPC to affirm priority needs and determine gaps in service to the business community. Advice was also solicited from the East Santa Clara Street Business Association and the San Jose Downtown Association. Literature about the project was supplied to these organizations and distributed to their members. Small businesses in the area are ethnically diverse so all SJSU COPC literature is developed in three languages: English, Spanish, and Vietnamese.

The IWW project was presented to the organizations and associations (as mentioned above) specifically focused on business development within our target area. Listening to their expressed concerns and successes the IWW team did some investigating of its own. The process began with a comprehensive "Summary of Needs Assessment Studies" conducted in the fall of 1997. The four studies are detailed below:

First Study: Business Alumni Survey

The goal was to develop, produce, and distribute a needs assessment survey to Business College alumni residing in the target area. Results indicated a strong interest in this

project by long-time residents and property/business owners. Eighty percent were frequent customers of local business, citing convenience and community support reasons. However, many respondents noted concerns regarding lack of parking; safety; and decent, clean establishments. Nearly half of the respondents identified retail stores as the new business most needed, followed by grocery stores, drug stores, and restaurants.

Second and Third Studies: Local Small Business Interviews

The goal was to develop needs assessment interview questions and conduct interviews with small business owners/managers in the target area. Two students worked independently, interviewing five different businesses each. Schedule conflicts and safety concerns were overcome by using telephone interviews, but otherwise interviews were face to face at the place of business. Results indicated a need for manager training in operations, marketing, human resources, financing, and business planning.

Fourth Study: Research Existing Incubators

The goal was to research information on existing incubators with a focus on academically sponsored incubators. The project directors were unable to find information on incubators without walls, but did uncover information on university incubators and minority incubators. University incubators are beneficial in that they provide the college opportunity for research, and are usually cheaper due to access to undergraduate and graduate students. In addition to this research, the project team participated in a field trip to El Pajaro Retail Business Incubator in Watsonville, California, to interview the director and observe an existing retail-oriented incubator in action.

Program Administration

As a result of these study findings, the IWW was launched. The original IWW project team consisted of the COPC director, COPC project coordinator, IWW director, IWW project coordinator, and three Business College faculty members. Soon other faculty members and outside community business organizations (San José Office of Economic Development, Redevelopment Agency, and the East Santa Clara Business Association) volunteered to join the team. Interested persons were referred to the IWW project coordinator for a briefing on the development and working components of IWW outreach, the current status of the project, and future meeting details. The first task the team addressed was to develop guidelines for preparing students to approach potential businesses for IWW participation and development of the IWW brochure. This led to an introduction packet, consisting of an introductory letter from the COPC director, the IWW brochure, and an article with an area map describing COPC. Student teams presented the introduction packet to businesses they approached for IWW participation.

The IWW project team met every third Monday during the semester to receive status reports from the COPC director, the IWW project coordinator, and participating faculty who provided student team status from individual business classes. During the first few meetings, the team further defined project criteria:

- Student teams should be small (2-6 persons, depending on the size of the business).
- Student teams should be strategically grouped based on existing skills, experience, languages. Student proposals were to be reviewed for likelihood of success.
- The COPC office and Business College faculty would provide continuity from semester to semester.

The IWW project coordinator recorded and distributed meeting minutes and handouts, created the first draft brochure, created student project approval forms, and provided assistance with Human Subjects Research forms and requirements. The coordinator met periodically with individual faculty and community organization members, reviewed student proposals, and presented a 1-hour seminar on "COPC, IWW, and Working Effectively with Small Businesses" to six business classes. Other coordination tasks included working with the SJSU Foundation Contract and Grants manager on other sources of IWW funds, acquiring informational materials, and arranging speakers covering topics such as venture capital and entrepreneurship. The IWW coordinator worked closely with the COPC coordinator, providing IWW status and writing reports, as required.

Participation and Progress, Spring 1998

In spring 1998, 267 students, 4 faculty members, community-based organizations (CBOs), government agencies, and other community business representatives worked together with 97 operating or proposed businesses toward the goals of IWW.

Business College courses (Project Management, Operations Management, and Strategic Consulting for Small Business) involved students working research projects directly with existing local businesses. Other Business College courses (Discovering Business, and Fundamentals of Management) involved students researching new business requirements for the local area and developing a business plan based on that research. Other courses included Marketing and Management Information Systems. Students from these courses were supportive in nature in the first term, though their roles and those of other business programs are expected to expand in the future. The results of student team efforts for the spring 1998 semester included 67 business plans for proposed new businesses and 29 research projects benefiting 26 local area businesses. For example, at a neighborhood pharmacy, the student team developed new advertising materials that were used by local churches in advertising products and services provided by the pharmacy.

Advisory Board

The IWW Advisory Board was created with the specific charter of developing an IWW strategic plan. Nine members attended the first meeting. The board includes representatives from the city of San Jose Economic Development and Redevelopment Agencies, businesses (including legal, accounting, finance, and small businesses), and the directors of the IWW and COPC. The project directors kept detailed minutes of the meetings from the initiation of the project. The advisory board's purpose is to provide overall policy and strategy for the business faculty and student teams in revitalizing the neighborhood businesses. To achieve this objective, the board was organized to represent key neighborhood business development and support services. In spring 1998, following the selection of board members, the board discussed the IWW program with the IWW business faculty. In fall 1998 the board developed its mission statement to achieve the IWW goals. Currently, the advisory board meets four times a year (twice a semester) to monitor the progress of the incubator and to also review some of the top student papers and presentations.

Interdisciplinary Efforts

In addition to the advisory board, the IWW instructors and staff regularly meet with faculty from other professional schools on campus (Nursing, Social Work and Education) to discuss issues of project management and collaborative projects. The also meet and confer with the faculty members who manage the general education Community Service-Learning Program.

Web Page

Under the direction of the project coordinator, individual students developed an IWW Web page and a tracking database. The Web page was first designed by researching other university COPC Web sites for content and relevant links to public resources. During the development process, IWW project team members reviewed drafts of the Web page. The final product was forwarded to the SJSU COPC director in the form of files on a disk to be downloaded to the SJSU COPC server and linked to the SJSU COPC Web site. The COPC Web site address is: http://www.sjsu.edu/news_and_info/copc/.

Tracking Database

The IWW tracking database supports IWW project management, captures all relevant project information, and has the capability to produce applicable hardcopy reports of information. Specifically, the database keeps track of information about IWW project team members, student participants, classes in which the students are enrolled, student projects, and participating businesses. The database utilizes Microsoft Access. A user manual explains the steps required for managing the necessary data about IWW members, students, classes, businesses, supporting resources, and student projects. The user manual also demonstrates how to write and store meeting minutes within the database. Separate from the database, electronic files hold information regarding supporting resources/organizations and IWW meeting minutes.

Progress, Summer 1998

During the spring 1998 semester, SJSU Business College students approached business owners and managers to solicit their participation in IWW research. The summer 1998 effort was focused on assessing the previous semester's results. Follow-up interviews occurred for the 23 existing businesses (see Exhibit 1 for the types of businesses that participated in the survey). The 67 new business proposals were reviewed by outside readers from the local entrepreneurial community. Follow-up interviews were held with each owner or manager (with the exception of those studies that were excluded due to confidential information). The IWW director and project coordinator conducted the interviews.

Exhibit 1

Types of Existing Businesses That Participated in the Spring and Fall 1998 IWW Project

Type of Business	Number	
Retail	19	
Service	9	
Nonprofit	2	
Manufacturing	1	
Decline-to-state (confidential)	3	
Total	34	

Survey Participants

The participants in this study included owners or managers of 23 of the 26 existing businesses that participated in the IWW program during spring and fall 1998. The types of businesses are listed in Exhibit 1. All businesses were located within the area surrounding

SJSU, and a majority of the owners or managers had been involved in their existing business for 10 years or more. Some but not all of the participants had previously worked with SJSU students.

Survey Methodology

A brief questionnaire was designed to facilitate consistency in follow-up interviews on spring semester efforts. Of the 15 total survey questions, 10 were open-ended and 5 were quantitative (see Appendix). Survey questions asked about student/business interaction, project results, and overall feedback on the experience. A copy of the student's final project report was provided to the owner or manager for reference during the interview, or mailed afterwards in the case of telephone interviews.

Data Collection

Business owners or managers were contacted by phone to schedule an interview. Interviews were held face-to-face, at the place of business whenever possible, but were also conducted by telephone for the owner or manager's convenience. Interviews took place during a 6-week period, beginning 1 month after the semester ended, and lasted between 20 and 60 minutes each.

Prior to the interview, participants were informed that their answers would have no effect on students as students had already received credit and final grades for the research project. They were told the interview consisted of 15 questions, some asking for input on a scale of 1 to 5, and that the information would be used to improve the future efforts of IWW.

For the face-to-face interviews, participants were encouraged to reference the student's final report during the interview. For telephone interviews, participants were sometimes coached by the interviewer as to what the students had accomplished or recommended. Participant answers were noted in writing by the interviewer. All owners or managers were thanked for their time and participation in the IWW program.

The outcome of the research reflected positive results. Despite a slow start, several attempts to engage business participation, and limited project time, student team results were highly rated. The quantitative results of the survey (questions 2, 4, 7, 13, and 14) were analyzed for statistical validity. The remaining ten survey questions were grouped to provide qualitative results.

Quantitative Data Analysis

Exhibit 2 shows the mean and standard deviations for the quantitative survey questions. A two-tailed Pearson correlation test showed a significant, positive interaction between student team effectiveness and businesses' overall experience with IWW (see Exhibit 3). The data confirm that business managers and owners were generally satisfied with the level of service provided by the students. The low correlation for the proportion of recommendations adopted is probably a function of the speed with which a business would adopt any changes that could significantly impact its future profitability.

Qualitative Data Analysis

Qualitative feedback was classified and grouped together to facilitate reporting. Student team interaction with business organizations was generally well received, with comments like "professional," "businesslike," "non-intrusive," and "good listening." The teams were seen to positively affect the organization by introduction to available resources, fresh

outlook, improved efficiency, and accomplishing goals that would otherwise not have been met. Although a couple businesses were able to adopt all student recommendations, most were limited to "few" or "some," due to lack of funds or time.

Exhibit 2

Responses by Existing Business Owners or Managers to the IWW Student Teams They Worked With During the Spring and Fall 1998 Semesters

Question Number	Question	Mean	Standard Deviation N=34	Meaning of mean value
2	Student team effectiveness	3.29/5	1.16	Above average
4	Adoption of student recommendations	3.5/5	1.08	Few/some
7	Businesses continue to work with the IWW	3.44/5	1.37	Probably
13	Businesses meet expectations with the IWW	3.41/5	.88	Met/exceeded
14	Overall experience with IWW	3.88/5	.85	Above average

Businesses agreed on their recommendations to student teams and to the IWW project. The recommendations ranked in this order: providing the final report to the business, showing flexibility with meetings and schedules, and starting the project earlier. Getting the right contact person, being flexible, and utilizing technology (e-mail, FAX) increased a team's effectiveness. Nearly all businesses turned down the offer for business skills training, citing internal training efforts or time limitations as the reason. All businesses felt that IWW met or exceeded their expectations and expressed an "above average" overall experience with IWW. The majority of businesses would like to continue working with student teams and IWW.

The results demonstrated a positive response to IWW project efforts. Students are successfully engaging business participation and businesses are reporting (some for the first time) a mutually helpful and positive experience in working with SJSU students. Based on discussions with students throughout the semester, it appears that businesses that declined participation expressed a high concern over their own time investment. During feedback interviews, at least one business admitted a tactic of discouraging students at the initial contact as a means of testing student commitment. Overall though, this study has shown strong support for IWW as a community partnership that has provided benefit to both SJSU and community businesses.

New Business Analysis

A team of experienced entrepreneurs reviewed the 67 new business plans. They categorized the plans using four criteria: quality of the report, feasibility of the proposal, apparent intent of the students or entrepreneur to consider execution of the project as a business, and whether the proposal could be carried out in the COPC target area. They divided their results into three categories: direct personal follow-up; telephone interview to answer unresolved questions; and no further action, respond with a thank-you letter.

A total of 27 business ideas were deemed worthy of additional direct action used in a class. Twenty-one proposals were classified in the second tier needing a follow-up telephone call. The remaining 19 were not seen as viable candidates for further action. Given

Pearson Correlation Coefficients and Two-Tailed Test Result	ints and Two-Tailed T	est Result			
Pearson Correlation (N=34)	Team Effectiveness	Recommendation Adopted	Continue With the Incubator	Met Expectations	Overall Experience
Team effectiveness	1.000	0.000	0.286*	0.567**	0.421*
Recommendation adopted		1.000	0.110	0.238	0.312*
Continue with the incubator			1.000	0.183	0.377*
Met expectations				1.000	0.707**
Overall experience					1.000

* Correlation is significant at the .05 level (two-tailed). ** Correlation is significant at the .01 level (two-tailed).

the expectation that only 3 percent of all business ideas ever reach fruition (the business opens), it is likely that two or three of the A-list group may survive the process.

Recommendations

As a result of these efforts, recommendations included implementation of a strong student orientation at the earliest part of the semester. This orientation includes:

- Meeting skills (introducing yourself and your purpose).
- Conversational skills (showing appreciation for the owner/manager's daily challenges).
- Interviewing skills (recognizing what an owner has invested in a business, understanding his/her concerns, time-management of the interview process).
- Dress code (proper business attire).
- Research and sales skills (closing on a positive note as a representative of future SJSU research projects).

The students are provided with a modified listing of potential business participants, business feedback, the introductory letter, the IWW brochure, and the COPC information article made available to students at this orientation. Student teams are instructed on how to conduct the feedback survey at the time they provide the final report to the business. This completed survey should be turned in to faculty with the student's final report.

Strengthening and Expanding the Program Mix

Program Administration

The IWW maintains the framework implemented in spring 1998 while continuing to broaden the reach of the program. In fall 1998 and spring 1999 an additional five faculty members incorporated IWW projects into their courses. The courses included Discovering Business, Business Operations, Project Management, Business and Society, and Planning for New Ventures. The additions brought to nine the total number of courses involved with the IWW. In the fall 1999 term, MBA students specializing in entrepreneurship and undergraduates in the Electronic Commerce program (from Marketing and Management Information Systems) were added to the incubator team.

Student Team Preparation

Student teams are required to attend one orientation session. This training session includes an introduction to the IWW, and provides guidance on selecting a business, representing SJSU, and effective approaches. Additionally, faculty members provide in-class guidelines and periodic coaching to student teams. Student teams are required to provide interim reports and schedule a follow-up interview with their participating business. At the time of the follow-up interview, student teams provide the business with a copy of their final report.

Information for Businesses

Potential business participants are provided information on what it means to be an IWW participant. Each business needs to devote sufficient time to provide students with information concerning the business and important problems affecting the business. The time commitment averages 5 to 10 hours a week. Student teams provide copies of the IWW introductory letter, IWW brochure, and COPC article to the business at the first meeting.

Project agreement forms must be completed and signed by student teams, business contacts, and faculty to ensure everyone is in agreement with expectations and limitations.

Program Marketing

Recognition opportunities exist for IWW participants, IWW members, and the IWW program itself. One such venue is the Student Life Center annual award ceremony held each spring. IWW administrators prepare press releases each semester and work with the *San Jose Mercury News* and SJSU *Spartan Daily* newspapers. The IWW brochure is constantly updated, and versions are available in Spanish and Vietnamese.

Summary and Conclusions

San José State University IWW students are hitting the streets to provide hands-on business consulting with an emphasis on the development of personal relationships. The relationships strengthen university-community relations and reinforce the university's desire to share the wealth of expertise it contains. The College of Business has developed and tested a structured framework for institutionalizing the process of enabling student teams to assist neighborhood businesses in solving important problems. Faculty involved as mentors in a variety of courses across the curriculum are able to apply their skills in real business situations to enhance their undergraduate teaching experience. A community business advisory board has been organized to provide support for both faculty and student teams in achieving the objectives of IWW.

The COPC's IWW program provides real-world business experience for the students while simultaneously uplifting local small businesses who do not have the financial resources to receive the business advice, training, marketing tools, and organization implementation they desperately need. This is a win-win situation that exemplifies creative flexibility on the part of the College of Business targeted at a community that has positively collaborated with students who, in turn, get to know "what it's really like." While the IWW project will continue to be refined, the practices set forth in this article have proved effective and could be adapted at other universities that seek to provide concrete business experience for the students they teach.

Authors

Burton V. Dean is professor and chairman of the department of organization and management at the College of Business, San José State University, San José, California. He teaches graduate and undergraduate courses on project management, operations management, and management. His research and consulting activities focus on project management, manufacturing management, strategic management, entrepreneurship, and small business management. He has published six books, the latest being Project Management and Strategic Management. He has published over 150 papers and chapters on a wide variety of management subjects. He is a member of the AAAS (fellow), INFORMS, ASQ, and the Engineering Management Society. Currently, he is an editor of Transactions on Engineering Management, Studies in Management Science and Systems, and Management Science (associate editor). He received a B.S. from Northwestern University, an M.S. from Columbia University, and a Ph.D. from the University of Illinois.

Jerome S. Burstein served as director of the San José State University Community Outreach Partnership Center. Recent accomplishments include development of the technology components for the Bay Area Homeless Alliance. He is a professor emeritus of management information systems at SJSU. He is currently working a book about the

impact on agencies of the rising expectations of funders toward quantifiable outcomes assessment. Recent presentations/publications include use of the Internet for advocacy and identifying social or community service opportunities and how to institutionalize COPCs to the benefit of both "town" and "gown" people.

Linda J. Woodsmall spent last year connecting homeless families with community resources and doing play therapy with elementary-age children. She has coauthored two country-wide studies on the homeless and spoken at conferences on the use of the Internet to acquire intervention resources and to do effective grassroots lobbying. Woodsmall participates on the Hardest Hundred Homeless committee, is an SJSU alumni scholarship winner, and is a member of the Golden Key National Honor Society and the PEO Sisterhood. She is currently working with young women who have been affected by gangs.

Judith C. Mathews graduated from San José State University (SJSU) with a B.A. in industrial and organizational psychology, and a minor in business. She has been recognized for her work as project coordinator for the SJSU Business College Incubator. After graduation, Mathews founded BgeeS Business Guidance Services, a Silicon Valley entrepreneurial enterprise that provides expert services to start-ups and high-growth companies in the Internet industry. Mathews has provided consultant work to both international governments and to commercial enterprises within the United States, and writes proposals and business plans for start-ups and high-growth businesses with a focus on Internet technology. Mathews is a member of the Silicon Valley Chamber of Commerce, the Angel Investors Organization, and the Software Development Forum.

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Appendix

IWW Spring Semester 1998

Interview questions for (29) existing business projects.

Business name:
Business phone #:
Name and title of person interviewed:
Date/time and length of interview:
Interviewer:

- 1. How did the student team interact with your organization?
- 2. Was the student team effective?

1	2	3	4	5
Not at all	Moderate	Fair	Above Average	Very

3.

4.	What portions of student recommendations were adopted?							
	1	2	3	4	5			
	None	Few	Some	Most	All			
5.	Please 6	explain y	our answ	er to Nun	nber 4, w	hy or why	y not?	
6.	How did the student team affect your organization?							
7.	Would your business like to continue working with Incubator Without Walls (IWW)?							
	1	2	3	4	5			
	No	Probabl	ly Not	Maybe	Probabl	у	Yes	
8.	Please 6	explain yo	our answ	er to Nun	nber 7, w	hy or wh	y not?	
9.	What re		dations d	o you hav	ve for the	student t	eams and	l/or the
10.		business yes or no		d in recei	ving busi	ness skill	s training	g (sponsored by
11.	Please e		our answ	er to Nun	nber 10, v	why or wl	ny not, ar	nd what type of
12.	If your business is interested in receiving training, when is the best month/day/time?							
13.	Did you	ır experie	ence with	IWW ma	atch your	expectati	ions?	
	1	2	3	4	5			
	None M	I et	Fell sho		Met	Exceede	ed	Above and
14.	Please 6	evaluate y	your over	all experi	ence wit	h IWW.		
	1	2	3	4	5			
	Poor	Below A	Average	Average Average		Excelle	nt	
15.	Is there	anything	gelse you	would li	ke to sha	re, beside	s what w	e have covered?

How would you suggest future student teams perform this type of study?