

Growing Our Own: Partnering with the City School District

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ABSTRACT

In early 2002, the President of the Rochester Institute of Technology, Dr. Albert Simone, was approached by a board member from the Rochester Business Education Alliance, encouraging him to participate in the Youth Apprenticeship Program. This program, with a long successful history in the Rochester area, partners high school sophomores with local businesses. Prospective students must meet a stringent set of requirements before being selected to interview with the business of their choice. If they are hired, they begin a two-year paid apprenticeship, working throughout the summer and after school during the academic year.

When Dr. Simone accepted the challenge to allow a partnership with the University, he opened the door to a history-making opportunity. This was the first time that an institution of higher education had joined the program. It became the first time that the program was able to offer information technology apprenticeships. The President agreed to fund two students in the first year and I agreed to create a real-life work experience for them.

We are now into Year Three of this very successful partnership, with our first two students having graduated from high school. They have both been accepted into RIT for the fall and we have the bonus of being able to integrate them into the ranks of our ITS student employees – coming to the University as freshmen but with two years of ITS experience. This paper will focus on their journey with us and the mutually satisfying outcome.

Categories and Subject Descriptors

K.6.1 [Management of Computing and Information Systems]: Project and People Management – *Staffing and Training*

General Terms

Management, Human Factors, Performance

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Keywords

Apprenticeship, training, students, technology skills, staffing, development, orientation

1. INTRODUCTION

Rochester Institute of Technology's Information and Technology Division is comprised of 100 full time staff, 300 student employees and 15 co-ops. In the spring of 2002, the Chief Information Officer was asked to become involved with a pilot project that would create apprenticeship opportunities within the division for local high school students. By agreeing to host this program, RIT became the first institution of higher education to do so in the history of the Monroe County program. In addition, our division offered the first apprenticeship in acquiring information technology skills.

The Youth Apprenticeship Program is a partnership between the Rochester Business Education Alliance, the Rochester City School District and a business partner. RIT was selected to create a partnership with the Wilson Magnet High School. We agreed to take two students, for a two-year time frame, for our pilot.

2. HISTORY

The Rochester Business Education Alliance was formed in 1992 to work with the Rochester City School District on education restructuring initiatives. It is an employer organization consisting of representatives from multi-industry companies, the City School District, county and city government, colleges and universities, and employer associations. The Alliance seeks to facilitate, coordinate and collaborate business-education partnerships to increase student performance [1]. One of the major educational reforms they have been involved with has been the school-to-work initiative. The Youth Apprenticeship Program, created to support this initiative, is a two-year program which provides the opportunity to gain real life experience in a student's chosen career field, discover the importance of the school-to-career connection and earn high school credit towards graduation. As a youth apprentice, the student gains valuable skills, works with experienced professionals and has fun learning [2].

In the Greater Rochester area, there are 14 participatory schools and more than 20 business partners.

3. YOUTH APPRENTICESHIP PROGRAM

Commitments required by each of the partners (the school, the student and the employer):

The student must:

- Complete a minimum of 1200 hours on the job
- Complete all work blocks
- Graduate from high school with a minimum GPA of 2.5
- Graduate from high school with a minimum attendance of 95%
- Complete a Senior Project
- Achieve acceptable performance evaluations from the employer
- Secure transportation to and from the job site

The employer:

- Interviews the eligible students and make the job offers
- Provides the student with a job mentor
- Provides job coaches to teach the student the mechanical elements of the job
- Pays the student a wage
- Evaluates the student's job performance and conveys it to the school
- Provides the student with work that adds value to the employer

The school:

- Provides a School-to-Work Coordinator to manage the student's program
- Provides grades and attendance data to the employer and to the student
- Assists in marketing the program to students and employers
- Selects the students eligible for the program using the program criteria
- Schedules the student's courses to allow the student to work

The student must apply in their sophomore year and the program begins the summer between 10th and 11th grade, and continues throughout the 12th grade.

4. THE PILOT PROGRAM

4.1 RIT's Initial Involvement

I volunteered to provide oversight to the program during the initial stages. The President of RIT was committed to a successful launch of the program, as was the Chief Information Officer and the Director of Customer Support Services within our division. The commitment was to bring two students on board for a two year program. Our plan was to evaluate the program at the end of that time to determine whether we would continue.

I agreed to interview students, make the final selections, provide an orientation and soft skills training, create a rotation schedule, meet

with the students on a regular basis, evaluate their performance and serve as their mentor. In addition, I managed the budgeting necessary for the students' work. They were hired as temporary employees and paid \$6.00/hour (for 1200 hours over two years). They were scheduled to work 40-hour weeks during the summer and 8-12 hours per week during the academic year.

Becoming involved late in the process that first spring, our initial two students were selected for us. Each had taken basic computing classes (C++, Microsoft Office Basics) and was interested in increasing their technology skills. They began working with us in July 2002. The male student had just turned 16 and the female student was 15. In addition to my role as mentor, I recruited a male mentor for the program as well.

The initial training involved an orientation to the division and to the University, customer service skills, professional conduct and work ethics. For the first two weeks, they were scheduled to spend time in each department of Information and Technology Services for an overview of staffing and services in that particular area.

4.2 Schedule Rotation

By the first of August, the students were ready for their first assignments. The decision was made to have rotations within the following areas of our department: Networking, HelpDesk, Desktop Support, Distributed Support Services (computer labs), Resnet (Residential Computing) and Data Center Operations. Each rotation consisted of approximately 130-160 hours. The students were assigned to separate areas to help them gain confidence and create new working relationships.

Each of the areas selected first submitted an outline containing tasks they would assign the students and skills the students could expect to develop while on rotation at that location. They were understandably more limited in what they could ask the high school students to do in comparison with a typical college student employee. When on duty in these assigned areas, the students report directly to the area and receive assignments from their job coach. Job coaches oversee the task assignment and completion and contribute input into the performance evaluations.

In their two years with us, each student rotates through the selected areas twice. Along the way, they are improving their skills and increasing their knowledge of the organization. When they go through their second rotation, they are much better prepared to take on a more active role.

4.3 On the Job Experience

The students' experiences were different depending on which rotation they were in. At the HelpDesk, we were concerned about letting them answer the phones as we offer immediate problem resolution where possible and their lack of experience would "shake" those customers who have come to expect swift, accurate resolution. Therefore, their tasks often included duplication, filling documentation bins, filing account requests, greeting customers and some online research. When assigned to Desktop Support, they shadowed the experienced students and staff on house calls and assisted in creation of CDs, imaging desktops and doing research. When they were on site in Resnet, they helped with virus clean-up, installed images, reformatted machines, and went on house calls. In the student computer labs, they had the opportunity to take ownership for some tasks – head counts, creating equipment-down

signs, restocking supplies and assisting with print queue management. The Networking team had the students shadow their staff, pulling cables, flaking jacks, and helping to organize the network closets. They were also allowed to track trouble tickets in the telecommunication database.

On occasion, the students were pulled from their schedules to assist with special events such as preparing materials for Fall Move-In and Orientation, New Faculty Orientation, Job Fairs, and Resource Fairs. They were also recruited to assist in crisis situations – they assisted in the duplication and distribution of hundreds of CDs used during the clean up of major virus outbreaks.

4.4 Senior Presentation

During the second year of their apprenticeships, the students must focus on their senior presentations as well as their rotations. The senior presentation is done at the end of their second year and consists of a ten page paper and a PowerPoint presentation. The topic has to be related to their work experience and counts for 25% of their final grade for their apprenticeship. One student wrote a “Guide to Networking Basics” and the other student’s paper was on “Encouraging Gender Diversity in Student Employees with the Information and Technology Services Organization.” I became quite involved in topic selection, conferring with their school mentor to follow-up on their progress, reviewing their papers, taking them to Presentation Skills classes, and final proofing.

The students needed to have a forum to present their papers and this also became a priority for me. This was an important event, marking the culmination of their apprenticeships with a formal presentation. The guest list was extensive – not only the students’ school supervisors and work supervisors attend - parents, favorite teachers, their school principal, the superintendent of the city school district, and representatives from the Alliance program were all on the guest list. Fortunately, I had budgeted for “hospitality monies” and was able to host the presentations at RIT and celebrate with a social event as well. The students did an excellent job and our pride was evident!

4.5 What They Gained

In addition to the on-the-job experience, the income, and increased technical skills, they truly benefited in many other ways. The opportunity to work alongside technically skilled staff, to develop a sense of responsibility to a team, to learn about all the aspects of the organization, and to help deliver outstanding customer service – these are truly newfound strengths that will serve them well in their future careers. They attended meetings with full time staff as well as social events. They also had firsthand opportunities to observe college life by visiting the residential halls with the Resnet Team, working in college computing labs, working on teams with current student employees and attending activities with enrolled students.

Our first-year apprentices received a great deal of recognition within the department and throughout the University. Several articles were written about their participation in the pilot program. Their successes were celebrated, including cake for the entire division on the day they were both accepted into RIT.

Their time with us and their exposure to the RIT community encouraged them to apply to RIT. Both students were accepted and their apprenticeship experience played an important role in that decision. One student is now in the Information Technology

program and the other is in the Physician’s Assistant program. Both programs are highly competitive.

4.6 What We Gained

We had an opportunity to design the pilot project. We had the chance to work closely with Wilson Magnet High School and with the Rochester Business Education Alliance. We took pleasure in helping these students acquire new skills and build their resume. We enjoyed watching them grow as they were given more responsibility and became more motivated to take on new initiatives. We appreciated the fact that two young people could come into the working world and adapt quickly to our policies and procedures and become effective members of a team. We marveled at their timeliness, their professionalism, their curiosity and their eagerness to help. The fact that we ended up with two new RIT freshmen is a pleasant bonus. The President’s outreach to the community has come full circle.

4.7 We Grew Our Own!

We now have two freshmen students who are welcome to join the ranks of our 300+ student employees in Information and Technology Services. Can you imagine anyone better qualified? They have had two years’ experience even before registering for classes. Although the level of experience may not be unusual, what is unusual is that the experience came from our division. They know the staff, they know the organization, they know the campus, they know the structure of the University, they are comfortable here and they have technical and people skills that we have already experienced. They have strong work ethics and they live in Rochester! What more could we ask for?

4.8 What Next?

Our pilot program was determined to be successful. We did not wait the full two years before we agreed to accept more students into the program. In year two, we accepted two more students. Unfortunately, one student ultimately dropped out for personal reasons. In year three, the pool of qualified candidates had risen greatly and we had an excellent group to pick from. We have admitted three more to the program. Because funding is limited, we will probably restrict the number of new students each year to two or three.

I would like to build in more “rotations” for the students by having them spend two weeks each in other technology areas of the University, such as the Educational Technology Center and the Library. I will provide more leadership training opportunities for them as well. I have already worked with a second institution of higher education in the county to help them become part of the program as well. I would like to see that work continue as the opportunities for the students and for the business partners is such an outstanding one.

I cannot help but reflect upon how each of us could have benefited from such an experience in our high school years. The Information and Technology Services Division at RIT is honored to be part of such a worthwhile experience.

5. ACKNOWLEDGEMENTS

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Kudos to the entire ITS full time staff, co-ops, and student staff for their patience, their knowledge and their willingness to assist in making this pilot program a success – they had a major role in this program.

I also want to thank and congratulate our first two Youth Apprenticeship Program students, Priscila Ilaraza and Philip Zenkel.

6. REFERENCES

- [1] **Web site:** Rochester Business Education Alliance
<http://www.rbea.org/about_rbea.asp>
- [2] Rochester Business Education Alliance. *Youth Apprenticeship Program: School-To-Career Training for Today's High School Student*. 2001