I. The Consulting Situation

About the Organization

The Eastside Neighborhood Employment Center (ENEC) was borne out of the vision of the Lawrenceville Citizen’s Council in early 1988. By April of 2000 the ENEC was one of three neighborhood employment centers to be chartered as a PA Career Link Mini Center. To date, ENEC has provided employment and training services for well over 7,000 East End residents and has assisted in the placement of upwards of 2,000 residents in full or part time employment opportunities.

The mission of ENEC is to improve the economic and social conditions of the residents of Eastside Neighborhoods by providing quality services in the areas of job readiness, counseling, career development, and job placement. (This I extracted from the official statement of the ENEC)

The majority of funding for the ENEC comes from state and city grants. There are other significant grantors that require the ENEC to report back to them in order to check if standards are being met so that additional funds can be given.

Programs

The essence of the ENEC boils down to five major functions:

- Solicit and collect grants/donations to support job placement for area people,
- Collect or link to data concerning job opportunities,
- Collect data from persons needing jobs and identify counseling and training needs so that those persons are more ready to take jobs that become available,
- Match available people to available jobs, and
- Collect data about ENEC activities and report back to those who grant support money.

The ENEC offers its clients services which enhance their employment opportunities. Their staff are trained and certified in Career Development, and provide significant experience in the following: Job readiness trainings, Soft skill trainings, Qualified job leads, Career reviews, Training referrals, Resume preparation, Internet access, and Computer training.

Furthermore they specifically deal with Career Development as one of its primary goals. They help in the application process as well as providing training through self paced tutorials, resume building, and career advising. The programs and workshops are run by Miss Price as well as a few other employees by her
direction. Furthermore there are a significant amount of self paced programs where clients can be placed in front of a computer and go through skill building on their own.

Staff
Two key people were involved in this consulting experience other that the consultant himself.

- Mr. Jack Horgan, Executive Director of ENEC
  - Responsible for setting policies, raising funds, finances, managing payroll, covering press relations, and managing overall administration of the Center
  - Mainly uses Excel, although he had been created a Filemaker Pro Database for creating statistical reports and spreadsheets regarding the day to day business of ENEC.
  - Additionally makes use of Word and email off of Hotmail.com
  - Addresses the issue of obtaining grants and funding as well as reporting to those agencies regarding funding.

- Miss Melissa Price, Job Placement/Career Development specialist
  - Responsible for developing programs and keeping track of people who have been employed and/or are currently employed by ENEC (meaning have found jobs through ENEC)
  - Primarily uses Excel, Word, and Publisher
  - Involved in developing job fair programs, as well as program for career advancement

Technical Environment
Every employee at ENEC has a computer of their own to work on. They are all connected to the same hub via a 3com hub. However, there is no simple sort of peer to peer networking installed on any of these computers. They all do share a single broadband connection to the internet and all the necessary wiring and physical setup for a network does exist. All the computers are running office XP Professional and internet explorer. Their computers are capable of running a peer to peer (Microsoft Network preferably)

Technology Management
In the past the company has had to call outside contractors to fix computers, however currently all the computers are under warranty and therefore can be serviced by the manufacturer. Additionally,, the initial setup of the computers was done by outside help, which were contracted for this purpose.

Mr. Horgan takes primary responsibility for the maintenance of the computers, and is making himself more adept to learning computer hardware and software as his own personal initiative. Miss Price as well has made a genuine effort on her own to become aware of what technology can do for the ENEC and implementing it into her daily job functions.
Internal & External Communications

Prior to the implementation of the projects discussed later on this document each member of the ENEC used hotmail address to communicate with one another and outside sources. These addresses are limited to 2 megabytes and it proved to be very unprofessional email addresses. There lacks a sort of professionalism in using hotmail addresses and there is legitimacy in having a website that Miss Price suggested. They do wish to advertise themselves on the web, as well as post what positions they currently have available as well as an area for employers to contact and learn about the ENEC. Additionally, they made and still do make good use of prepared hard materials such a as Executive Summaries to distribute amongst potential clients (employers) and grant lenders.

Further to move away from interoffice memos and note passing to a more technological form of memos via email was something that they felt would be beneficial to the organization. They passed notes to one another and interoffice memos. These were all saved in various filing cabinets making it difficult to keep track and retrieve such documents.

Consulting Projects

After evaluating the technological environment of the ENEC, the Consultant and Community Partner determined two projects that would increase efficiency and productivity with regards to achieving the mission and objectives of the organization. Two areas which are particularly integral to the operation and in direct connection to the mission of the organization are management of client information, as well as to increase awareness of the opportunities and services provided to both, those seeking employment, and those seeking to employ.

There were significant problems in both these areas that they felt, if addressed correctly, would increase productivity, as well efficiency of the ENEC allowing them to attend to additional clients and attend to the needs of further grantors.

1. Data Entry and Management

Prior to (and up till) the implementation of this project, the Community Partners, Miss Melissa Price and Mr. Jack Horgan, primarily used Excel to keep a list of their current employed clients as well as those searching for employment. Additionally, they computed statistics by hand which could be done in a much more efficient manner as the statistics were already entered into a computer. This presented an opportunity to increase their awareness of Data Management techniques.

Furthermore, they spent hours on end typing and retyping the reports from one employee to the next. The forms were taken in as clients came in. The receptionist had the client fill out two specific forms, with redundant information as required by the ENEC’s grantors. These forms were then organized and the data was entered into an excel file by another employee. The files were then passed onto Miss Price, who organizes the data for a report. She then copies it for another report and reorganizes it. Mr. Horgan uses the data in a similar fashion for his reporting needs. The process was tedious and time consuming.

The primary project was to address this issue of information management, and the storage of that information. The solution tackled the process of client information intake, management and storage of...
that information, as well as using that information to report to grantors. The project was accomplished by using a Microsoft Access database that can be accessed through their existing LAN.

2. Website and Email Solutions

The ENEC offers a significant amount of reading material in the area of skill building and development. For example, they have a significant amount of resources in preparing for job interviews, such as how to dress, what questions to expect, how to build your resume, how to review your resume. However, prior to the implementation of this project, they only had one set of these resources. Obviously, these resources were not to leave the center, and only one individual may use them at a time. This also implied that if one person is using a given resource, there is significant chance that they will not be able to use it as the material is grouped together in a handful of binders. Rather than photocopy the information so that there is a larger number of these resources, we made use of the computers at the center, and made it possible for clients who have personal computer to make use of this information on their own time.

Furthermore, they offer a number of services that are not advertised unless one is actually in the center inquiring about it. There are no explicit flyers, or descriptions regarding these programs. Also, they hold workshops on a frequent basis, and have no outgoing flyer or method of promoting this other than by word of mouth to those who come into the center. The only event that they advertise (even though not heavily) is a series of job fairs to employers and clients who have been to the center.

Additionally, they communicate with employers and other centers occur through email. They monitor current job openings and request job openings from employers in the area. They email employers in a mass email list which they type and retype every time from paper lists they have. There is simply no organization of email addresses of any sort.

The next project was to address the area of increasing awareness of the services provided by the ENEC. This area was and will be managed by a website solution. At the time, the ENEC owned a website; however there was currently no use of that site in any manner. The website now contains content for both clients as well as employers, in the form of resources (i.e. resume building tips for clients) and information regarding services provided by the ENEC and how to get in touch with them. Furthermore, this site allows them to have personalized, professional email addresses as compared to their current Hotmail addresses.

II. Outcomes and Recommendations

Outcome 1: Improving data entry and management systems

The primary project was addressing the issue of information management, and the storage of that information. The solution tackled the process of client information intake, management and storage of that information, as well as using that information to report to grantors. This was be accomplished by using a Microsoft Access database that can be accessed through their existing LAN.
Results/Outcomes

- Developed a completely new intake form, representing the explicit needs of the organization and that what would be reported to the grantors.
- Developed a completely new Excel spreadsheet for simplified and efficient management of client data.
- Developed a reporting system for the data stored in Excel, which commenced the creation of streamlined reporting system.
- Developed Access tables and database, as well as a series of queries based on the needs determined for reporting criteria.
- Developed a reporting system for the Access database and a conversion procedure from Excel to Access.
- Implemented multiple computer access to the database at any given time without data loss.
- Developed a simple and basic outline on how to use the work tasks for training purposes as well as reproducing the entire process.

Outcome Evidence

The results of the reporting features have been checked with the previous databases that were submitted. This corroborates that the solution is able to maintain the data. Furthermore, it demonstrates that the reporting is accurate.

The consultant and the CP tested the solution in a number of ways. These ways provide evidence that the outcome is as was expected.

Using data from the month of January the consultant and the CP tested the streamlined version of the process used for client information intake and management. This included using the new revised intake form, a new Excel spreadsheet reflecting the changes in the intake form, and the report generation from Excel. The data was stored as predicted and the reporting was accurate as compared to a manually computed report.

Using data from the month of February the consultant and the CP tested the Access database though data entered from the new intake form the completely automated system of reporting. Both CPs entered and used the database simultaneously in order to make sure the ability to use it at the same time was functional. The data was stored as predicted and the reporting was accurate as compared to a manually computed report.

In both cases comparing the data that the CP had previously submitted to the grantors and the data resulting from the outcomes of this project showed that the outcomes were completely accurate. Actually, they found flaws in the data that the CP had previously submitted. In double checking the data and the methods of querying, we found that the CP had been actually reporting information not completely correctly. And in one particular case not at all. The results of the
project were substantial. The CP will no longer have to spend time calculating reporting statistics and will also be free of data and calculations errors.

**Evidence of Expanded Capacity**

This solution is extremely important as it is associated with one of the ENEC’s core job functions. The viability of their business is dependant on three particular aspects addressed in this project:

- Ability to manage the information about clients so that they can be easily, efficiently, and most importantly quickly, matched with currently available employment opportunities.
  - Streamlining the process of data intake not only did just this by filtering pertinent information and not having to enter it two or more times.
- Allows for the employees of the ENEC to spend their time much more efficiently as they no longer to retype the take forms in multiple manners.
- Data is much easier to sift through when reporting or attempting to find specific demographics, as it is simply more organized.

The streamlined process also aided in the creation of a database. This database further improves the efficiency of the core job functions just as the streamlined process did.

- Removes steps in the data entry process
- Almost completely automates the reporting process
- Allows for multiple users to access the information at a time rather than having to wait on others and wasting time
- Entire sifting and reporting process has been cut down in time from a few days, as previously was, to a few minutes
- Major outcome is that the center will be able to serve a larger number of clients effortlessly and will now be able to focus their attentions on job placement and individual clients and skill building
- Little to no effort into reporting and obtaining statistics for fundraising proposals to potential grantors.

**Evidence of Sustainability**

Both CPs have been left will the skills to replicate and pass such information to other Careerlink centers. Due to the fact that the majority of work was performed in concert with the consultant, the CP has gained a significant understanding of the technologies involved in the project. Further, the CP has been left with significant documentation that she can refresh herself of this material.
Lastly, she has completed a significant portion of each aspect of the project on her own after being demonstrated to by the consultant.

The CP understands the process of developing a database in the non-technical aspect and basing it off simple sets of information (Excel spreadsheet). She is also able to plan for a database and understand when it would be useful. The CP has proven that she is capable of setting up an Access database as well as managing and altering the information within it. If new fields or information needs to be added or even a completely new database is needed, she will be able to develop it from scratch and complete the technical aspect on her own. The CP also has been left with enough materials to understand how to share a resource such as a database over a Local Area Network and the intricacies that go along with that (i.e. who has the ability to alter it, etc how to restrict the ability to view or alter selectively).

Recommendation

The consultant recommends that Ms. Price continue to use both the streamlined version as well as the database in order to maintain records of her clients. This will allow her to be comfortable using both Excel and Access. After that she should maintain and use the Access database. Furthermore she should instruct the other members of the office to use the Access database over the LAN in order to input data about clients.

The need to simultaneously use Excel and Access is that the CPs felt comfortable already with Excel. In the event that Access lost data, they could revert to the streamlined process using Excel and complete their tasks in that manner. Furthermore, the primary task of this project was to improve the situation at hand. This was done by improving the setup that they already had (i.e. the manner in which they used Excel) and then replacing that solution with a more innovative and powerful one.

Further the consultant recommends that Miss Price consider hiring a summer intern in order to develop a simple graphical interface for the database. The CP can look into getting an intern at the CMU career center website. Originally, this was part of the project, but the CP felt comfortable without using a GUI. The developed manuals and plan exist for the GUI, however it was never implemented (these materials can be accessed at www.andrew.cmu.edu/~jayk/tcinc/ or at www.enecjobs.org/manuals/). The intern would be responsible for developing a simple and efficient front-end for the database that is almost explanation free in entering data and receiving standardized reports effortlessly. However, with the GUI the CP can have clients enter their own information into the database saving even more time. The GUI can possibly be adapted to a website so that the CP can use the data entry system remotely and demonstrate it to other Centers. It may be possible for multiple centers to use the same database.

Next, the consultant would like the CP to stay up to date with database techniques, and up to date versions of Access. The consultant has recommending checking the Microsoft Access website every few months in order to check for newer versions of the software. Also, the consultant would like the CP to read a few introduction materials to Access in order to understand more completely all the Access has to offer. This would further allow the CP to train her employees to use the database and other such features. Other recommendations will be made later on this document regarding general technological awareness.
Resources

http://www.studentaffairs.cmu.edu/career/

This website will allow Ms. Price to find a summer intern who will be capable of implementing the GUI. She will be able to contact the career center and explain in detail what skills are necessary to complete the project and hence be able to fulfill this recommendation easily.

Microsoft Office – Access Homepage
http://www.microsoft.com/office/access/

This website will allow Ms. Price to stay up to date with Access and also will provide support for Access in the event that she cannot find an answer to a question in the given documentation or help menus. She will also be aware when newer versions arrive and if it would be appropriate to upgrade to them. There are also a number of forums on this website where the CP can post to in the event that she needs serious help.

Outcome 2: Improving awareness of products, services, and opportunities provided by the ENEC and initiating and maintaining efficient communications both internally and externally

The CP and consultant have devised and begun a solution to these concerns in the form of a website, as well as standardized email address for staff members. The website is still in development, and lacking in content but will provide for effective resource replication and management. The email solution has been implemented and will be supported by a 3rd party service.

Solutions

- Analyzed the current resource materials available, and determine what material could be duplicated in an electronic manner in order to post on the website.

- Structured a website on paper in order to have an organizational model to follow, developed content of specific areas, and began implementing these designs on a local copy of the website.

- Successfully removed all instances of Outlook and Outlook Express from ENEC machines and also reinstalled Outlook to use as a primary email reader. Configured Outlook to use with their existing hotmail addresses as well as the new enecjobs.com addresses that they will be receiving shortly.

- Implemented a complete website solution, with spacing and the ability to update and replace content easily and effectively. Designed a website development plan for not only the ENEC but all Careerlink centers.
Outcome Evidence

A website containing advertising information, center information, and event information has been developed and been placed on a server. The site includes resource materials for clients. The site is effective in showing products and services by the ENEC. The site houses resource materials regarding preparing for job interviews, such as how to dress, what questions to expect, how to build your resume, how to review your resume and other such materials.

The data and memos are now capable of being transferred via email or over the LAN. There is instantaneous communication between the employees of the ENEC. The CP and consultant have tested and developed instruction manuals on how to use the email system both internally and externally as well. The CP is now able to communicate in a professional manner with her new email address.

Evidence of Expanded Capacity

The presentation of the website will is based so that it will be targeted to potential clients as well as potential employers. It caters to both employers as well as job seekers. They now have all their public information as well as technical training materials on their websites. It is also allowing for the increased ability of clients to use limited resources via computers in the center or even their own personal computers, making them better equipped to seek and obtain a job. Even though the project has not reached completion, some materials are available on the site which clients are viewing currently.

The CP has begun to use Outlook for her email needs and is in the process of converting from hotmail, though she can still access and use her hotmail account through outlook. The CPs have also began to communicate with one another using email and passing memos in that fashion rather than dropping off stacks of paper in the drop box of their office doors. Furthermore they are no longer limited in size as the emails are downloaded to their computers. They also have been using this to look at memos and such that have been received as a form of cataloging emails. They have implemented the sorting features of Outlook by using the Rules Wizard and other such features.

Evidence of Sustainability

The CP has gained knowledge of website development, as well as using email services other than hotmail. She can easily pass this information onto other similar centers or even use it in the future as a training program for clients in order to increase their job skills. She has effectively installed Outlook on her computer, and set it up. She has also done so on other computers, as well as organizing personal folders and such on the system in order to organize emails. She has also been able to use mailing lists and such in order to complete her tasks.

The CP has developed webpages for the site under the guidance of the consultant. She has then created a significant number of pages herself with specific content that she has taken from resource materials in the office. Miss Price has also been involved in every stage of structuring the website and designing it. She has become very comfortable with FrontPage and is capable of reproducing major portions of the site. She has also has demonstrated that she is capable of
uploading the site, given a user name and password (to an ftp) and organizing the site into sections and subsections. Miss Price is capable of doing this, both manually, as well as using the FrontPage layout manager.

Furthermore, the CPs have been given documentation regarding developing the site, the layout of it, and how to edit particular portions of it as well as the entire site. They have also been left with training CDs and manuals that will aid them in updating, backing up and adjusting the site content.

Lastly, the website has been outsourced for hosting and email. The service provides technical support with problems that may arise as well as help with uploading/backup and administration of email/site.

Recommendation

There are a few simple recommendations that the consultant has for the CP. The first one is very simple, and is not so much a technology recommendation but more an operations recommendation. It is recommended that the CP make it organizational policy to use Outlook as the sole mail client and require that all memos and correspondence be sent in this fashion. The likelihood of this technology being used efficiently will be furthered by making it company policy to use it. Otherwise, the staff will not be keen on learning or using this for of correspondence.

The website should also be advertised once completed at events via announcements, bulletins, and emails. The success of this project is completely dependant on the awareness of the site as well as the number of visits to the site.

Additionally, the consultant would like to make the recommendation, as did earlier that the CP keep up to date with FrontPage and Outlook by intermittently visiting the relevant websites to see if newer versions are available that support features that the CP would like to use.

Lastly, the consultant recommends that the CP make frequent updates to the website as well as backups. The consultant also suggests implementing new technologies, as stated in the documentation, such as Flash, and Java applets. In the future the CP should integrate this project and the last in a password-ed section of the website that allows for clients to directly input their information off of the website into the database.

Resources

The CP has been left with a series of websites in documentation and what to look for in website development literature. She has been left with what to consider when looking for graphics packages, web editors, and general website development tools.

Microsoft Office – Outlook/FrontPage Homepage (Office Homepage)
http://www.microsoft.com/office/

This website will allow Ms. Price to stay up to date with Office products and also will provide support in the event that she cannot find an answer to a question in the given
documentation or help menus. She will also be aware when newer versions arrive and if it would be appropriate to upgrade to them. There are also a number of forums on this website where the CP can post to in the event that she needs serious help.

CNet.com – Graphics and Publishing
http://www.cnet.com

The consultant would like the CP to check the CNet.com Graphics and Publishing website frequently for new and innovative ideas for web publishing. The site is full of information and “how to”s regarding site development. This would be an excellent site to learn new and creative things.

Recommendations

Recommendation 1: Development of a Technology/Disaster Recovery Plan

The consultant sees an opportunity to promote technological awareness primarily through technology and disaster recovery plans.

Source

During the course of the term, while discussing the cost structure of the website, how much they would like to spend on software, updating computers and other such topics, it became apparent that there was no significant technology plan in place. Additionally there exists no disaster recovery plan in the event that a machine was to crash or data were lost. In the past the company has had to call outside contractors to fix computers and the initial setup of the computers was done by outside help, which were contracted for this purpose.

Furthermore they have no inventory of the computers or other technology that they have in the office, their specifications, their warranties or any other such information. The CPs recognize that technology is important to the operation of their organization, however are not confident in the development of such a plan, and hence have not developed one. In the past they have further felt that some sort of planning (they are unclear as to how to plan for technology) will be beneficial to the operations of the ENEC.

Rationale

It would fair well for the ENEC to develop both a technology plan as well as a disaster recovery plan. It would be possible to incorporate the two into a single plan encompassing all their needs.

In the event that a problem would arise, there would be an understanding of where to go regarding a given problem. There would also be preventative measures built into the Technology Plan so that disaster was less likely to occur. In addition they would also have planned ahead in the case that additional purchases needed to be made, so that they would not be rendered useless without computers or hardware, or software that did not operate as needed.
In terms of their employees, it would allow for them to get a firm handle on what the needs of technology in the organization are, how it should be handle/implemented, and how much it will cost. In other respects a technology plan would allow for detailed information about the technology they need and how best to implement it. It would also a give a good idea of how to incorporate the technology they already have. It will also make it easy for grantors to understand the technological needs of the ENEC, essentially using the plan as a proposal to get more money from grantors. Essentially, a technology plan would allow for becoming more effective in daily operations, budgeting and spending money more effectively, boosting fundraising efforts, and aid in the development of staff education towards technology.

It is important to have a plan in order to keep the organization up to date in the strategies and technologies that will aid them in carrying out their mission. They can keep track of new and emerging technologies that will be beneficial to their mission and how to plan for obtaining, using, and marinating them.

Resources

National Center for Technology Planning
http://www.netp.com/

This website is a good resource in planning for technology. They offer material from workshops regarding all aspects of technology planning, and specifically cater to nonprofit organizations and schools.

Techsoup: The Technology Place for Nonprofits
http://www.techsoup.org/

Techsoup provides especially good resources for those nonprofits that have just begun to consider a technology plan. They provide forums where nonprofits can discuss their problems and how to determine what is important. They also offer professional guidance in developing a plan. They make “technology planning easy to understand,” covering every topic from “choosing a database to funding for technology.” They also show and help in getting software donations from larger companies such as Microsoft, Novell, Cisco, and Symantec.

**Recommendation 1: Improving contact information management via MS Outlook**

The consultant sees an opportunity for the CP to use MS Outlook for more than email solutions.

**Source**

The CPs maintain lists of contacts using a simple Rolodex. When they need to obtain addresses or emails they pass on cards to one another. This method becomes sloppy and unorganized, as cards are easily misplaced and at times they can become unreadable. They also only keep phone numbers and addresses in the Rolodex. Email addresses and other information is kept separate on different sheets of paper.
Additionally, there is no consistent mailing list of information. Every time there is a need for an email to be sent out to a distribution list, the list is typed over from a sheet of paper. This is a significant waste of time, and the alternatives exist to this.

Rationale

The organization needs to keep and electronic address book to organization contacts. It proves to be easy to manage and keep track of everyone that it has dealt or needs to deal with. Email addresses, phone numbers, fax numbers, and street addresses can be stored in the Outlook Contacts.

Outlook also provides functionality in organizing distribution lists. This will be in both the form of email addresses as well as mailing address lists. Outlook will be capable of sending mass emails from a given address. It is also capable of printing mailing labels using the proper plugins.

Schedules can be kept using Outlook as well. This will save the CP time in typing redundant information while distributing her schedule. It will also save her time in organizing her schedule and meetings and such when there are changes to it.

This solution also further improves upon the new email system by distributing memos as well as contact information to other sorts of information. No longer will there be a number of rolodexes used in the office if this solution is implemented but a common contact list that can and will be maintained by all. Once one person updates it, it will be updated for all. It will be one common electronic rolodex (in some ways) that can be accessed by all from anywhere.

Resources

Microsoft Office – Outlook Homepage
http://www.microsoft.com/office/outlook

This website will allow Ms. Price to stay up to date with MS Outlook and also will provide support in the event that she cannot find an answer to a question in the given documentation or help menus. She will also be aware when newer versions arrive and if it would be appropriate to upgrade to them. There are also a number of forums on this website where the CP can post to in the event that she needs serious help.

III. About the Consultant

Jay Kothari is currently a senior Computer Science and Political Science Double Major. Upon completion of schooling he plans to find a position involving network development. He has TAed a number of math courses, and originally planned to minor in the subject. He also plans to attend law school in a few years after graduation.