I. Situation Description

Organization
With initial funding coming from the United Way, the East Side Community Collaborative (ESCC) opened their doors 9 years ago. Located in Homewood/Brushton, ESCC exists to coordinate programs that serve homeless individuals and families, victims of domestic violence, substance abusers, and at-risk families. ESCC has 105 agencies that belong to their collaborative.

Programs
- **Referring participants**
  The bulk of the work done at ESCC involves assessing each participant’s needs and referring them to an agency that can help them. A participant is typically referred to ESCC from some outside source, but ESCC will also see people who come in without a referral. Once a person has been referred to ESCC, they are assigned an adult and child case manager who will then review the participant’s situation. Based on the information gathered in this review, the case manager will refer them to one or more of their 105 member agencies and coordinate the services. The member agencies then provide a service to the participant to hopefully help them with their situation.

- **Children’s playgroup**
  ESCC operates a playgroup for children ages 3-5. The playgroup meets at the ESCC site where children interact with each other and a supervisor. The children can do art, read, work on puzzles, and many other activities during this playgroup time.

- **Transitional houses**
  ESCC has two transitional houses that are used as temporary housing for homeless women and children. ESCC also aids homeless people in finding permanent housing.

Of these three programs, the people at ESCC put most of their time and energy into referring participants.

Staff
Because ESCC mainly deals with case management and coordination, a lot of what goes on at ESCC is administrative work.

<table>
<thead>
<tr>
<th>Employees</th>
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<tbody>
<tr>
<td><strong>Position</strong></td>
</tr>
<tr>
<td>Director</td>
</tr>
<tr>
<td>Supervisor</td>
</tr>
<tr>
<td>Case Manager</td>
</tr>
<tr>
<td>Family Intervention Specialist</td>
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<tr>
<td>Crisis Intervention Specialist</td>
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<tr>
<td>Data Manager</td>
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<tr>
<td>Contract Therapist</td>
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<tr>
<td><strong>Total Employees</strong></td>
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Community Partners
Donna Kaduck
Position: Supervisor
Responsibilities:
1. Assign case managers to participants
2. Make quarterly reports containing statistics about ESCC and their participants
Brian Dennis
Position: Data Manager
Responsibilities:
1. Get necessary information from participants upon initial referral to ESCC
2. Manage the computers at ESCC
3. Maintain the database that contains demographic information on all the participants

Staff Computer Usage
Almost all of the employees have a computer that they use for administrative purposes. Examples of things they do on their computers include:
- Make spreadsheets containing participant personal information (name, date of birth, etc).
- Generate forms on a word processor
- Take notes about the participants
The overall use of computers at ESCC is to keep track of the flow and details of the participants through the ESCC system.

Technical Environment

<table>
<thead>
<tr>
<th>Computer</th>
<th>Hardware</th>
<th>Software</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital</td>
<td>Pentium II</td>
<td>Office 95, Word Perfect 6.0, Norton AntiVirus, Internet Explorer 4.0</td>
<td>3</td>
</tr>
<tr>
<td>NEC</td>
<td>Pentium I</td>
<td>Office 95, Word Perfect 6.0, Norton AntiVirus, Internet Explorer 4.0</td>
<td>1</td>
</tr>
<tr>
<td>HP</td>
<td>Pentium I</td>
<td>Office 95, Word Perfect 6.0, Norton AntiVirus, Internet Explorer 4.0</td>
<td>1</td>
</tr>
<tr>
<td>Digital</td>
<td>Pentium I</td>
<td>Office 95, Word Perfect 6.0, Norton AntiVirus, Internet Explorer 4.0</td>
<td>1</td>
</tr>
<tr>
<td>HP</td>
<td>Pentium III</td>
<td>Office 95, Word Perfect 6.0, Norton AntiVirus, Internet Explorer 4.0</td>
<td>1</td>
</tr>
<tr>
<td>HP</td>
<td>486</td>
<td>Office 95, Word Perfect 6.0, Norton AntiVirus, Internet Explorer 4.0</td>
<td>1</td>
</tr>
</tbody>
</table>

ESCC also has 8 printers and 1 scanner. ESCC has no Internet connection. ESCC is not networked either, but the building is wired to be networked because the business that was in the building before them was networked.

Technology Management
Brian handles most of the computer issues at ESCC. When something is broken, he is the one who deals with it. He also has responsibilities at ESCC that include doing the initial information intake on a new participant to ESCC. Because this latter task is typically more pressing than the former, he does not usually get an opportunity to upgrade or improve how ESCC is using their computers.
II. Analysis of Problems and Opportunities

After analyzing the situation at ESCC, three basic opportunities presented themselves.

1. Teach Excel
   
   **Problem**
   ESCC makes reports at the end of every month and every quarter that contain demographic statistics on their participants. Monthly reports are given to Donna who then combines all the information together into a quarterly report. Donna was making these quarterly reports by collecting all the monthly reports at the end of a quarter, adding up all the numbers on a calculator, and then entering them into her computer on a word processor.

   **Why it was a problem**
   The process Donna was using to create the quarterly reports was much more time-consuming than it needed to be. Waiting until the end of a quarter to do the report as well as creating the report almost completely manually were unnecessarily inefficient ways of making the quarterly reports.

   **Course of action**
   To help Donna create the quarterly reports more efficiently, we decided to teach Donna how to use Excel.

   **Anticipated results**
   We believed that after Donna learned how to use Excel, she would be able to speed up her creation of quarterly reports. We also expected that Donna would be able to use Excel to help her on other tasks that she did.

   **What we did**
   During one of our weekly meetings, I taught Donna some Excel basics. We happened to be working on Excel at the end of a quarter, so she and I created a quarterly report together. Upon completion of the quarterly report, we made a template that creates quarterly reports given the monthly totals.

   **Actual results**
   Teaching Donna Excel allowed her to do her quarterly reports more efficiently. She now enters in the monthly statistics into her Excel spreadsheet as she gets them each month. She has entered formulas into the spreadsheet to calculate the totals that she needs automatically, eliminating the step of adding up the monthly totals manually. Her quarterly reports are now maintained on a month to month basis requiring no extra work at the end of the quarter.

2. Fix the database
   
   **Problem**
   ESCC had a database on MS Access 2.0 that was not meeting their needs. It did not allow them to do the kinds of queries they wanted nor did the relationships between the various pieces of data make sense anymore.

   **Why it was a problem**
   Because the database was not meeting their needs, they did quite a few things to get around it. For example, they would reenter some of the information into word processors or spreadsheets to allow them to manipulate the information the way that they wanted. These extra steps were redundant and time-consuming. Also, since much of their information existed in more than one place, they had multiple files and pieces of paper to keep track of and were sometimes disorganized.

   **Course of action**
   We decided to create a new database based on the one they already had. The new database would meet the needs of ESCC where the previous one fell short.

   **Anticipated results**
   We expected to create a new database that was more appropriate to ESCC’s needs. We also anticipated that Brian would increase his overall knowledge of databases.

   **What we did**
We created the new database entirely from scratch. We first planned out what information would need to be stored in the database as well as the relationships between these pieces of information. Next came the creation of the tables and relationships in MS Access 7.0. Finally, we created the reports, forms, and queries.

**Actual results**
ESCC now has a database that will allow them to work with their data the way they want to. Brian also learned a great deal about databases, specifically concerning the creation of them. Below are some things that demonstrate Brian’s new competence with Access databases.
1. He suggested how we should set up the tables, what information should go in them, and what the relationships between them should be.
2. He created all the tables in Microsoft Access 7.0 completely on his own.
3. He solved many problems we were having without any help from me. I once came to our weekly meeting to find that Brian had found and implemented a solution to a problem we were having with creating reports.

3. **Technology plan**
   **Problem**
The people at ESCC had ideas of how they could improve their operations with new technology. However, many of the technology ideas that were floating around ESCC were not very well defined. For example, many people agreed that they would like ESCC to be networked and have Internet access, but there were varying ideas on how they specifically would like to do this.
   **Why it was a problem**
ESCC was not moving down a path that would actually allow them to acquire this new technology. They had not yet decided what technology they needed, how it would specifically help them in their operations, or how they would go about acquiring this technology. Brian had thought through many of these issues much more than the other staff because it is part of his job to deal with the computers at ESCC. But even then, there still remained a lot of research and planning to be done before ESCC could actually get any new technology.
   **Course of action**
We decided that it was critical for ESCC to have a well-thought-out plan containing the details of what technology they want, how they are going to get it, who will install it, who will maintain it, and how they will pay for it. During my time at ESCC, we began working toward creating a technology plan mainly by thinking through many of their technology opportunities.
   **Anticipated results**
By thinking through many of the issues related to getting new technology, I hoped Brian and the other employees of ESCC would see the need for creating a technology plan. I hoped that our discussions would motivate and prepare them to begin work on a technology plan after I left.
What we did

Brian and I simply had a few talks where we discussed the value of certain technologies to ESCC. For example, we went through what ESCC would be able to do if they had their computers networked together. We also discussed some preliminary steps they needed to take to get some of the technologies. This included things like doing more research on alternatives before making a definitive choice on one technology.

Actual results

After our discussions, Brian has continued to think about bringing new technology to ESCC. ESCC now sees the necessity of a technology plan and are more focused on creating one in the near future. Brian has already taken many introductory steps toward the creation of a technology plan. These include:
1. researching networking possibilities
2. researching case management software packages
3. looking into creating a web page

ESCC has recently received 3 56K modems and 3 email accounts provided through a free dial up account with Primary Care Health Services. Brian is clear on how to set up these modems and email accounts and also understands how the dial up access will benefit ESCC.

III. Analysis of Outcomes and Recommendations

Outcomes of teaching Excel

- The new format of the quarterly reports benefits the staff that views and uses the reports. The reports can have more information on them because Excel makes it easy to do more complex calculations. For example, Donna can now easily calculate the average number of participants per month. Excel also offers a cleaner, more logical layout, so the other employees will be able to read the reports better as well.

- In addition to using Excel to make quarterly reports, Donna is now using it to help her with other aspects of her job. One week, I came in to find that Donna had used Excel to make a report containing information about contributions made to ESCC. She had not only used Excel on her own, but she also identified the need for it by herself too. This demonstrated to me that Donna will be able to maintain her Excel skills and that she will continue to evaluate her work to determine if Excel can help her. If Donna is able to apply her computer skills to the ever-changing tasks she has at ESCC, then she will constantly be simplifying her tasks at ESCC as well as making sure she does not lose her computer skills.

Outcomes of fixing the database

- Now that ESCC has a database that meets their needs, much of the redundant work that the staff was doing before can be eliminated. They will no longer have to reenter data into word processors to get the information into a form that they can work with. Instead, all of the data entry and manipulation can be done directly in the database. This will save the employees time, and it will also keep the information more organized since it will all be in one central location.

- Since Brian’s database skills were improved during the creation of the database, he is now prepared to keep the database current in the coming years. ESCC is constantly changing the way they operate which could necessitate changes in the database. For example, in a few years they may require new information on their participants that they do not need now. Brian now has the knowledge to change the current database to reflect any changes that might come up in the next few years. Thus, the database that we created should be able to stick around for many years and should be able to adapt to the changes at ESCC that are sure to take place.
Outcomes of beginning a technology plan

- Brian has already gone through a lot of the initial steps needed in creating a technology plan. Namely, he has thought through many of the options that are available to ESCC and has begun to investigate the cost and benefit of many of these technologies. After I leave, I believe Brian will continue to work on, and eventually complete, a technology plan for ESCC. Since the value of the plan has been demonstrated and some initial work has already been done, Brian is motivated to continue working on the plan. I have included in my recommendations some thoughts about the work that still needs to be done and where to go from here.

- Since ESCC just received modems and email accounts, they should soon have email and Internet access. Again, I have included in my recommendations some ideas of what needs to be done next.

Recommendations

1. Donna learns Access

   Motivation
   Donna mentioned to me once that what she was doing in an Excel was helpful, but that it would be nice if she could compare and graph information from multiple quarterly reports. The most efficient way to do this is to use Access. If Donna were to make a database in Access containing all the information she needs to keep track of, then she could not only make the same reports she is making now in Excel, but she could also make graphs and do many other things with the data.

   How to accomplish it
   1. Brian teaches Access to Donna
      - Brian and I have created a database from scratch, so Brian clearly has the skills to pass on to Donna. If Brian taught Donna how to use Access, this would benefit Donna as mentioned above, but it would also serve to keep Brian’s Access skills fresh. However, Brian’s schedule keeps him very busy, and I do not know if he has time to devote to helping Donna learn Access. The two of them should sit down with each other and see if they can schedule even an hour a week to teach Donna Access.
      - I think the best way for Brian to teach Donna how to use Access is to first come up with a task that Donna wants done. Donna mentioned that she wanted to be able to graph information from the reports she has done in Excel, so this would be a good skill to teach first. Once Brian and Donna have done this, Brian could then show her how to use some other parts of Access they did not use yet, such as queries and reports.
   2. Online tutorials
      If Brian does not have the time to teach Donna how to use Access, Donna can use online tutorials to learn how to use Access. Since it appears that ESCC will soon have Internet access, Donna will be able to access these sites from her computer at ESCC. Actually, these tutorials can be useful additional resources even if Brian does teach Donna. The following is a list of web sites that serve as Access tutorials or a source of information
http://www.athree.com • Has a section that goes over the basics of databases
• Has several sections that covers specific parts of Access
databases such as tables, queries, reports, forms, macros, and
modules
• Has a discussion forum where questions can be posted and
answered. This can be useful if Brian and Donna come across
something that stumps both of them

http://www.mvps.org/access • This site is for advanced users, but it can be used to search for
answers to some tougher questions

2. Staff meetings to learn from each other

Motivation
During my time as ESCC, I found that both Brian and Donna were knowledgeable about computers
and how to use them. While of course there was room for them to learn more about computers, I
would not consider either one of them a computer novice. My guess is that all of the employees
could learn a great deal from each other if they shared some of their computer experiences with
each other. I suggest that ESCC has a few staff meetings to discuss with each other problems they
are having with computers and possible solutions. I suspect that there is enough of a hierarchy of
computer knowledge at ESCC that the employees could help each other solve their problems and
learn new and better ways to use their computers. I think the ESCC staff needs to realize what a
valuable asset their other staff members are and take advantage of this where they can.

How to accomplish it
First, the staff would need to schedule a meeting for everyone to come together and discuss their
computer issues. Before the meeting, everyone should write down a short list of problems they
have encountered with their computers or things that they wish they could do with them. During
the meeting, they could present these problems to the group. If anyone knows how to solve them,
then it can be discussed there. If the problem requires more one-on-one time, then those two
people can set up a time to meet to discuss it further. The staff could also bring in personal
examples where they learned something new on their computer or accomplished something they
found to be exciting. These personal examples could give the other staff members some ideas. By
sharing these experiences and problems with each other, I think all of the staff can learn and benefit
from each other.

3. Continue with the technology plan

Motivation
Much of the initial thinking that needs to go on before creating a technology plan has already been
accomplished. To actually get this new technology, it is critical that ESCC continue working on a
technology plan until they have a complete version that they are pleased with. I would not
recommend making this plan without some help, though. Having someone with some expertise help
with the plan could be very beneficial. Someone with some experience would know what steps to
go through to create a technology plan and would have some idea of how to implement each of
these steps. For example, a consultant who has helped set up a network before would know who to
contact and have an idea of what a reasonable price would be.

How to accomplish it
1. Get another student consultant
I believe making this plan is important enough to consider participating in this class again with the
intent of getting the plan done. The plan can be completed in a semester if the consultant focuses
in on it early in the semester. When choosing the student consultant, select one that has experience setting up a network and is very aware of much of the current technology.

2. **Contact someone with experience**

What follows is the contact information of a company that has installed networks at non-profits before. They are willing to talk with the staff at ESCC and give a quote. Even if the decision is made not to work with them, I still highly recommend at least speaking with them and getting a quote. Speaking with them could bring up issues that have not been thought about yet or give ideas that had not been considered before.

Dave Ross  
VP of Simmons Business Systems (in Bethel Park)  
724-831-7400  
dross@simmonsbusiness.com.

3. **Go it alone**

While, I do not recommend completing the technology plan alone, it is still a feasible option. What follows are some resources that should help.

<table>
<thead>
<tr>
<th><strong><a href="http://www.ncrtec.org/capacity/guidewww/gghome.htm">http://www.ncrtec.org/capacity/guidewww/gghome.htm</a></strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>This site goes over some questions to consider while making a technology plan. It is geared for educational uses, but many of the questions it mentions apply to non-profits as well. Specifically, the part of the site called “Guiding Questions for Technology Planning” lists some steps to go through to make a technology plan. These steps can be used as a rough guide to make a technology plan.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong><a href="http://www.helping.org/nonprofit/">http://www.helping.org/nonprofit/</a></strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>This site provides many helpful resources for non-profits. It includes things like how to plan and create a web site, how to connect to the Internet, how to do research on the web, and many other useful resources.</td>
</tr>
</tbody>
</table>

4. **Begin using email and Internet**

**Motivation**

Since ESCC will soon have email and Internet access, they can start using it to enhance the way they operate.

**Suggestions**

**Email**

2. Email generally makes communication much easier and faster. If the people they are trying to communicate with have email access, ESCC can email their member agencies, their participants, or possibly places who offer grants.

4. I suggest designating one of these email addresses as the primary means of communication to ESCC. If a person wants to send email to ESCC, then they should use this primary email address. This will prevent the other two email addresses from getting unsolicited emails.

**Internet**

2. ESCC could create a web page. A web page would give them more publicity and make it easier for member agencies and participants to find them. Three Rivers Free Net offers free web hosting for non-profits. Check them out at [http://www.trfn.org](http://www.trfn.org). They could do research for the technology plan. There are plenty of sites that would give ESCC some ideas of what technologies are available and how they might benefit ESCC. One such site is [http://www.onenw.org/toolkit](http://www.onenw.org/toolkit).