

# 4 Kids Early Learning Center

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## I. Consulting Situation

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### A. About the Organization

4 Kids Early Learning Center at 404 Braddock Avenue is the central of five affiliated early learning centers located in and around Braddock, PA. They are an organization devoted to promoting and providing quality childcare for children ranging from infancy through kindergarten. Braddock, once a booming steel town, has been drastically affected by the closing of three of the four steel mills in the 1980s. 4 Kids provides affordable quality child care to residents of Braddock and the surrounding communities, which allows parents to join the workforce during normal business hours and puts children in a positive learning environment as early as possible.

4 Kids provides education and cares for children ranging from infancy through preschool in their daily child care program, and has a before and after school program for children whose parents have non-standard schedules. Many children from the public half-day kindergartens attend 4 Kids' before and after school program as well. The main center at 404 Braddock Avenue also has full-day kindergarten classes through the local public schools.

The personnel at the main center consist of administrative staff for the entire organization and teaching staff for the classrooms at 404 Braddock. The Vice President of Child Care heads the five centers and reports to the President of Heritage Health Foundation, Inc. (HHFI). The administrative staff also includes a Technology Director who manages the technology for all five centers and three other administrative staff positions. The operating budget for 4 Kids is mostly provided by the Heinz Foundation, managed through HHFI, and funding for smaller programs and events is raised through grants and government programs.

### B. Current Technology Situation

Currently each of the preschool classrooms at four of the five centers has a computer provided through CyberStart, a statewide technology education initiative, and a few classrooms have computers donated by IBM. These computers have basic children's games and educational software installed with a user interface designed for young children. 4 Kids administrative staff uses *ProCare Child Management Software* to keep information such as medical needs, vaccinations, care schedule and attendance for each of their children. Children at the central location are logged in and out of the attendance system via a computer at the door. Other centers call in their attendance daily to the central location, where it is entered into the *ProCare* database.

Each administrative staff member has a personal computer. All of these computers are connected to a local area network (LAN), but only two of these computers have connections to the Internet, both through modem lines and separate ISP accounts (Stargate and AOL). Every administrative computer has a printer, and there is a scanner available in the main office. There are also two donated computers in the lunchroom that have recently been connected to the LAN and will have *ProCare* installed soon.

The Technology Director, Ms. Fustich, has been the Consultant's contact for the span of this partnership. It is Ms. Fustich's responsibility to adapt any new technology programs to the needs of 4 Kids and maintain the existing technology for all five locations. Currently she is responsible for maintaining the hardware and software in all five centers and interfacing between the staff at each center and the support

personnel from the various service providers 4 Kids uses. Because a large part of her time is taken up trying to fix other people's technology problems she needs to be able to utilize and troubleshoot the equipment and systems that 4 Kids uses as easily as possible.

Ms. Fustich is the only person assigned to these duties, and her job description is going to be changing near the end of April when she'll begin spending most of her time at Heritage Health Foundation's office writing grants and proposals for its operations. At the present moment there are no plans for someone to fill her role as Technology Director for 4 Kids, leaving the current Technology Director with the task of fulfilling her new duties as well as attempting to maintain the critical bulk of her old duties necessary to support the operations of 4 Kids.

### **C. Consulting Focus**

The consulting partnership focused its efforts in the following areas:

1. Troubleshooting System Problems
2. Creating a Sample Website
3. Website Research and Development

#### **1. Troubleshooting System Problems**

A significant part of Ms. Fustich's time is spent trouble shooting technology problems in any of the five centers. In order to properly manage her growing responsibilities, Ms. Fustich needed to expand her working knowledge of the hardware, software and systems that 4 Kids uses.

The problems that Ms. Fustich faces when troubleshooting 4 Kids' technology are not generally consistent or reproducible. Ms. Fustich and the Consultant, faced with few immediate problems and the certainty that such problems would continue to present themselves throughout the partnership, decided that the best way for Ms. Fustich to expand her troubleshooting skills was to address each problem as it came up during the partnership.

In order to add sustainability to the skills that Ms. Fustich would gain from solving the problem, Ms. Fustich and the Consultant decided to address each immediate issue and then discuss the further implications of the situation. Topics discussed included how the problem could recur, how Ms. Fustich could prevent the problem from recurring, the root cause of the problem, and how that root cause could affect other systems.

As a result of this approach, Ms. Fustich gained a better understanding and a higher level of comfort with the systems and hardware that she works with on a daily basis.

#### **2. Website Research and Development**

As advocates of "quality child care," 4 Kids Early Learning Center wants to be available as a resource to:

- Parents with currently enrolled children.
- Parents trying to find a child care center and looking for information specific to 4 Kids.
- Parents (not necessarily living in Pittsburgh) looking for basic information about looking for a child care center.
- Other early learning centers looking for resources.
- Benefactors looking for information about supporting 4 Kids or programs like 4 Kids.
- News media reporters looking for information about 4 Kids.

Because of the increasing prevalence of the Internet and importance of having a substantial web presence, Ms. Fustich and the administration at HHHFI decided that a 4 Kids website was the best way to provide themselves as a resource to the above audiences.

Ms. Fustich and the Consultant realized that they would not have the time or the expertise to design a fully functional and representative website during the consulting partnership. It was decided that hiring an independent contractor would be the best solution to designing and building a website that met the standards 4 Kids wanted for their online presence.

In order to facilitate the web design process and 4 Kids' partnership with an independent contractor, Ms. Fustich and the Consultant began collecting information and resources for the development of a successful, highly usable 4 Kids website.

### **3. Creating a Sample Website**

Someone must be responsible for maintaining the 4 Kids website. As the current Technology Director, Ms. Fustich is the most likely candidate for that role. Even if she does not end up with the personal responsibility of maintaining the website, she will certainly have responsibilities pertaining to the site, including deciding who will be responsible for maintaining it and deciding what level of maintenance 4 Kids can afford. Given these responsibilities, it was important that Ms. Fustich become familiar with basic HTML and web page authoring software.

To this end, Ms. Fustich and the Consultant began work on a two page sample 4 Kids website.

## **II. Outcomes and Recommendations**

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### **A. Results of Consulting Work**

#### **1. Website Research and Development**

The consulting partners used web standards from Usability.gov, the National Cancer Institute's web reference for creating a usable website, to organize and develop a strong outline and plan for the website.

Among the steps Ms. Fustich and the Consultant have taken to ensure a usable website are:

- Determined what services 4 Kids wanted the website to provide.
- Determined the projected audiences.
- For each audience:
  - Decided what information will be looked for.
  - Decided what information will not be actively looked for but will still further 4 Kids goals.
  - Posed questions for each piece of information that might be looked for in order to ensure that it is obvious at every level of the website where a user should go in order to answer that question.
  - Decided how to best reach each audience with information about the website.
- Collected links and other resources that might be of use to visitors or would duplicate information that 4 Kids wants on their website.
- Assigned someone within the organization to each topic or piece of information, as a resource to the contractor.
- Researched other childcare centers' websites to note faults and successes and learn from their experiences.

The end result of this research is:

- A document detailing Ms. Fustich and the Consultant's work. (See Appendix A)
- An increased knowledge on the part of Ms. Fustich on what 4 Kids can and should expect from a website designed by an independent contractor.
- An increased knowledge on the part of Ms. Fustich pertaining to how websites should be organized, and how to actually design a usable website.

The consultant recommends that Ms. Fustich continue her research in conjunction with an independent contractor. Ms. Fustich needs to ensure that the contractor understands what is expected of a website that represents 4 Kids and HHFI to the Internet community.

HHFI and 4 Kids have decided to work with Cosgrove Communications to design the 4 Kids website.

The Consultant recommends several online resources for designing usable websites:

- **Jakob Neilson's [Alertbox](#)** is updated bi-weekly with articles on "Current Issues in Web-Usability." His articles focus on web-usability as a whole more often than just website design, but his articles are very well titled so it is easy to find articles of interest. Note that even his old articles maintain relevance. The Consultant recommends these articles for Ms. Fustich and the Cosgroves:

<http://www.useit.com/alertbox>

1. The [top ten new mistakes](#) of web design (May 30<sup>th</sup>, 1999)  
<http://www.useit.com/alertbox/990530.html>
  2. The difference between [print design and Web design](#) (January 24, 1999)  
<http://www.useit.com/alertbox/990124.html>
  3. [Ten good deeds in web design](#) (October 3, 1999)  
<http://www.useit.com/alertbox/991003.html>
  4. Using [link titles](#) to help users predict where they are going (January 11, 1998)  
<http://www.useit.com/alertbox/980111.html>
  5. [Avoid PDF for On-Screen Reading](#) (June 10, 2001)  
<http://www.useit.com/alertbox/20010610.html>
- **[Usability.gov](#)** was created for the National Cancer Institute when it redesigned its website as a tool to help organizations design usable websites.  
<http://usability.gov>
    1. [Research-Based Web Design & Usability Guidelines](#) provides a discussion of various web design guidelines organized by topic, with the relative 'validity' of each guideline ranked on a 1-5 scale.  
<http://usability.gov/guidelines/index.html>
    2. [Methods for Designing Usable Websites](#) provides a step-by-step plan for "*designing usable Web sites — from planning to launch.*"  
<http://usability.gov/methods/index.html>
  - The Yale Center for Advanced Instructional Media's [Web Style Guide](#) addresses similar issues as Usability.gov's Web Design & Usability Guidelines, but does so in a more technical manner. It discusses specific HTML features and simply explains issues related to those features. This resource is recommended to Ms. Fustich and Cosgrove Communications, as a tool to understand how the design choices they make will carry through to the HTML code that will be produced.  
<http://info.med.yale.edu/caim/manual/contents.html>

## 2. Creating a Sample Website

Ms. Fustich used Macromedia's *Dreamweaver* to build a sample 4 Kids website, and is now familiar with concepts such as templates, tables, lists, and other standard HTML aspects. She experimented with different ways to present the same information in order to examine the varying strengths and weaknesses

of different styles. Ms. Fustich is now experienced enough in using *Dreamweaver* to be able to make updates to the 4 Kids website.

Because of the work done to create a sample website, Ms. Fustich understands the complexities involved in updating and maintaining a web page. She is now able to make educated decisions for HHHFI about what sort of web presence they will be able to support.

Neither Ms. Fustich nor anyone in the organization has the skills or the time required to design and construct the finished 4 Kids website. The Consultant recommends that Ms. Fustich partner with an independent consultant in developing the 4 Kids website.

As a result of this consulting partnership, Ms. Fustich will be able to supervise the contractor's work. Of particular importance is that Ms. Fustich continues to communicate with the contractor. She needs to identify the expectations she has about maintaining the website. She also has to ensure that Cosgrove Communications communicates to her what skills 4 Kids will need to have in its personnel in order to maintain and work with any functionality that is built into the website, and request resources beyond her current toolkit to aid in learning those skills.

## **B. Additional Recommendations**

### **1. Expand Technical Personnel Capacity**

This problem was identified as a result of analyzing other problems and solutions and a deep look at the current and upcoming situation. Ms. Fustich's job description will be changing soon to shift her responsibilities more towards participating with HHHFI in writing grants and other administrative details, and further away from the technology support and implementation work that she has been doing at 4 Kids. The problem with this is that HHHFI has no current plans to replace Ms. Fustich or have someone take responsibility for the work she has been doing as Technology Director at 4 Kids.

Coupled with the Ms. Fustich's job shift, 4 Kids also has plans for massive expansions to their main center, including upgrading the entire network, possibly connecting the main center to the HHHFI headquarters in order to share a network, and connecting the main center to UPMC's network across the street. If these plans go through, they will be adding more computer systems both in the main building, the four other child care centers and some of the seven home care centers.

HHFI also has hopes of installing a distance-learning lab in the main center.

If either of these proposals is approved and receives funding, HHHFI will most likely include in the project funding for increased Technical Personnel to cover the added infrastructure. However, even if the projects are not approved, 4 Kids is developing a website that they will have to maintain and will still be adding computers to some of the offsite locations, both of which will require increased support from Ms. Fustich.

Without the personnel to take care of the existing hardware, software and systems, 4 Kids will have difficulty continuing to operate. This will be especially problematic with Ms. Fustich working at the HHHFI office instead of the main center, because she will have to travel to troubleshoot any problem that occurs at the main center, where most of the computer hardware is located. With the new projects that 4 Kids is already taking on, their support needs will go beyond just their current operating regimen. The end result is that even though 4 Kids and HHHFI are visionary in their uses of technology, they will not have the personnel time/skill to adopt all of the new programs and infrastructure that they need to accomplish their goals.

The first step to matching technology personnel with 4 Kids needs is outlining exactly what those needs are. For every project that 4 Kids and HHFI plan to take on, they need to accurately analyze what increased technical skills and time will be necessary to initiate and support that project. Ms. Fustich has contact information through her associates with which she has already requested job descriptions and assessments from organizations with similar structures and projects as those that 4 Kids is investigating. Ms. Fustich can also use the skills that she has to estimate the amount of time and additional skills she would need to support a new project, such as the website that is being developed by her and Cosgrove Communications.

It is important that HHFI and 4 Kids always take into consideration the cost of support and additional technology personnel when considering a new project. In particular, new projects should not be undertaken if they would jeopardize the support of existing projects.

## **2. Extended Backup System**

4 Kids uses *ProCare* software to keep track of all of their children's information, including schedules, medical information, parent/guardian contact information, and attendance. The *ProCare* database is stored on a central computer through the network and backed up to floppy nightly. They rotate floppies every night, so that each floppy gets used once a week. This method keeps all of their *ProCare* data safe from most reasonable harm short of a site wide disaster. 4 Kids does not, however, keep a backup of any of their other documents or information.

If one of their computers were to crash, if someone accidentally deleted the wrong folder or file, even if a software installation goes bad, 4 Kids stands to lose months of work and valuable data. A good backup system would keep them from losing important information and keep them on track to providing quality childcare.

4 Kids needs to invest in a backup system for their non-*ProCare* information. Because they have all computers connected on a local area network (LAN), all they would need is software that can backup multiple computers over a network to one or two central locations.

The Consultant recommends that 4 Kids download the free trial version of Dantz' *Retrospect Backup*. Information on the product can found on [dantz.com](http://dantz.com) by following these directions:

- Mouse-over "Products" in the menu on the left, and select
  - "Products" from the menu for a listing of software made by Dantz,
  - "Product Downloads" to download the free trial version.

*Retrospect Backup* is available in five different versions. The Consultant recommends using the [Desktop](http://www.dantz.com/index.php3?SCREEN=rdb_win) version. [http://www.dantz.com/index.php3?SCREEN=rdb\\_win](http://www.dantz.com/index.php3?SCREEN=rdb_win)

Ms. Fustich can install the downloaded *Retrospect Desktop Backup* onto one of the administrative computers. The Consultant recommends and using the same computer used to store the *ProCare* database. Ms. Fustich should be sure to backup the *ProCare* database prior to any installations on this computer.

*Retrospect Desktop Backup* supports backups of any mapped hard drive. Ms. Fustich can map her hard drive on the *ProCare* computer and use the software to backup vital folders to the *ProCare* computer. If this test is successful, Ms. Fustich can then backup all of the networked computers to the central computer by sharing each of their hard drives.

Before purchasing *Retrospect Desktop Backup* Ms. Fustich should verify that it works on 4 Kids' software and hardware, and that it allows them to backup only relevant documents and folders onto a

central computer (the *ProCare* computer). The trial period lasts 30 days, and if Ms. Fustich is satisfied with the quality of the software, the Consultant recommends buying the software for the organization. Retrospect Desktop Backup is listed at \$149.

### 3. Broadband Internet Access

Currently 4 Kids has only two administrative computers connected to the Internet, both through independent modem connections and independent Internet Service Providers (ISP), AOL and Stargate. Both of these computers are in constant use and are not available for other staff to use. If 4 Kids is going to expand its technical personnel or expand existing personnel's responsibilities – for example by having someone other than Ms. Fustich responsible for updating the web page or validating its links – it would be useful for them to have more than two computers connected to the Internet.

Even if 4 Kids does not expand its personnel, a broadband Internet connection has the following further benefits:

- Broadband access is typically much faster than a modem, often by a factor of 10x or more.
- As all computers are already connected to the LAN, these computers would all have uniform Internet access through this single addition.
- 4 Kids would be saving the cost of their two ISP accounts and two dedicated phone lines, and would save the bookkeeping hassle of paying three different companies.

4 Kids is currently investigating a proposal to use their neighbor and benefactor UPMC's T-1 line to provide increased Internet access to their main center. If this proposal is approved, the Consultant believes that it would be a good use of shared resources.

If the T-1 proposal does not go through, 4 Kids can find DSL services offered in their area through [dslreports.com](http://dslreports.com):

- Click on "[Find Service](#)" from the menu to the left.
- Click on "[Broadband Power Search](#)."
- Enter phone number and zip code.

Price estimates hover around \$50 a month plus a \$100 installation/hardware fee. Steel City Telecom has the best ratings for this area, but is generally more expensive than other providers. The Consultant recommends that 4 Kids contacts Steel City Telecom (their sales number is (877) 327-8111) when they begin considering broadband. Ms. Fustich can describe 4 Kids' situation and projected needs based on the projects in which 4 Kids is involved.

Broadband Internet Access could help 4 Kids to maintain their website and spend less time supporting their current connections, but it is an option that has to be carefully considered for cost efficiency and increased benefits.

#### About the Consultant

Benjamin Vernot is finishing his third year at Carnegie Mellon University. He is majoring in Computer Science and has a minor in Art. Benjamin is one of the few students at Carnegie Mellon University planning to remain in Pittsburgh after he graduates in May 2003. He has many career goals, including:

- Starting a nonprofit organization devoted to providing free technology consulting to other nonprofits in the Pittsburgh area.
- Starting a community run website (similar to [Slashdot.org](http://Slashdot.org)) dedicated to making Pittsburgh a better place by keeping people more informed about happenings, events and issues. He hopes this will help keep students in Pittsburgh by connecting people-in-Pittsburgh with things-to-do-in-Pittsburgh.
- Working for Google.
- Never working for Microsoft.

### Website Planning Description

Over the past three months, we have been developing a plan for the creation & implementation of a 4 Kids website. In the midst of this project, our focus changed slightly. We realized we would not be doing the actual design work. However, the work we have completed is valuable as the website is further developed.

#### Our Audience

At first glance, one may think that our audience is primarily parents. We do wish to reach several groups of parents, but also want to provide information to early childhood professionals and other partners and funding sources.

For parents of enrolled children, we want to provide information on staff backgrounds and meals to be served, as well as including photographs and an art gallery. Parents who are potentially enrolling their children need information on our mission and philosophy, hours, locations, etc. We also want to be a source of information for parents not interested in enrolling at 4 Kids – information on quality, using technology, funding sources, and helpful links.

As a professional resource, our website would provide position papers and links to other early childhood experts. We would also like to build a database of activities, which could be searched according to theme or topic. This section, however, may be beyond the scope of our capability, due to the added responsibility and security necessary for this process.

All audiences, including other partners, would benefit from information on current events and projects going on within the 4 Kids network.

#### The Process

The first step in the process to create the plan for our website was determining what services we wanted to provide to which audiences, as detailed above. As part of this process we included some of the preschool teachers at the center to get their input on what sort of information they would like to have included on the website.

We then divided those services into topics of information. For example, if we wanted to let certain groups of people know more about 4 Kids and its five different Early Learning Centers, we would have to compile information about all of the centers in one place. We then collected limited information on each of the topics and categorized them based on who would need to be a contact for further information on each topic.

The most important part of organizing our website was to use specific examples of our audience and how they would try to find information using our website. Specific case examples that we used are:

- A parent (not necessarily living in this area) looking for basic information about looking for a child care center
  - What should I look for in a child care center?
  - What are the important questions to ask?
  - Where can I find a listing of child care centers in my area?
- A parent with currently enrolled children
  - Looking for a lunch schedule
  - Looking for information on activities and events at 4 Kids
  - Looking for hours and contact information of 4 Kids staff
- A parent trying to find a child care center and looking for information specific to 4 Kids
  - Looking for teacher name, info, center info, their policies and positions, etc.
- Other early learning centers looking for resources
  - Where can I find lesson plans?
  - What does 4 Kids do about a problem similar to one we are facing?

We also researched other organization's websites to compare their strategies to the approaches we were taking to planning our website. We paid specific attention to elements of these websites that we thought were helpful or well done and elements that we thought were good to avoid in our website.

### The Content

The website as a whole will consist of the following sections:

- **Home Page** – includes our logo & contact information, a description of 4 Kids and its philosophy, and the connection to Heritage Health Foundation. This page would connect to all others listed below.
- **Heritage Health Foundation** – either the actual web page, or just an information section; content would be determined by HHFI
- **Our Centers** – locations, ages served & contact info, including family child care (listed as a group with Tracy as the contact), pictures or tours of each site, a staff photo gallery, art gallery, additional philosophy info
- **Services Provided** or other projects – include Heads Up, training done by staff, trainings hosted for Louise Child Care, SRG, Week of the Young Child, Pathways, Ready for Life, etc.
- **Parent Resources** – information on quality care, technology, etc., funding sources, links to NAEYC, CDF, AAP, School district, OCD, art gallery, menus
- **Professional Resources** – searchable activities entered by staff, position papers, links to the sites listed above as well as others, listing of SRG members, info on the Office of Child Development

### Plan for dissemination of information

Our website is a waste of money if nobody uses it. We need to create plans for reaching each of our projected audiences and providing them with information about our website.

We need to put information about our website, even just the web address, on or in the following:

- Parent handbook given to each parent when his or her child enrolls.
- Forms for signing children up for events.
- Application forms and any other information that is given to parents when they inquire about enrolling their child at 4 Kids.
- Bulletin Boards inside 4 Kids.
- 4 Kids letterhead.
- 4 Kids sign outside each center.
- Any printed media or booklet.
- Any advertising.

Our website should be submitted to the major search engines (Yahoo, Google, AltaVista, etc) and we will request that a link to our website be placed on all of our associate organization's websites. Examples of these organizations include: the local school district, UPMC Braddock, Pathways, Office of Child Development, Good Shepherd, and the Allegheny County Housing Authority.