ABSTRACT

TECHNICAL COMMUNICATION STRATEGIES IN MARKETING

by Laura Howard

Writers trained in technical communication may now find themselves working in positions that are far more commercial than technical, and they must learn to use their skills in different ways to sell a product or service. The transition might initially seem challenging, but technical writers are trained to reach a target audience through various methods, including audience assessment and usability testing. This ability to connect with a target audience is essential for writers working in a marketing role. I demonstrate in this report how I used my education as a technical writer to successfully reach a commercial audience during my internship with DNA Diagnostics Center; first through a detailed explanation of the rhetorical decisions behind the redesign of a commercial website and then through a discussion of how I determined the needs of my audience to ensure an accessible final product.
TECHNICAL COMMUNICATION STRATEGIES IN MARKETING

An Internship Report

Submitted to the
Faculty of Miami University
in partial fulfillment of
the requirements for the degree of
Master of Technical and Scientific Communication

Department of English
by
Laura Howard
Miami University
Oxford, Ohio
2011

Advisor:_____________________________________
Dr. Jean A. Lutz

Reader:_____________________________________
Dr. Katherine Durack

Reader:_____________________________________
Dr. Phyllis Callahan

Reader:_____________________________________
Dr. Stuart Blythe
Table of Contents

Introduction 1

Chapter 1  Introducing DNA Diagnostics Center 2
   The Company 3
   The Product 6
   The Work 9

Chapter 2  Completing Internship Projects 10
   Generating Commercial Websites 10
   Updating Laboratory Forms 12
   Creating Promotional Material 14

Chapter 3  Developing a Commercial Website 17
   Planning the Website 17
   Developing the Website 20
   Implementing the Website 32
   Following Up After Launch 33

Chapter 4  Targeting Your Audience 35
   Analyzing an Audience 36
   Involving an Audience 43
   Building Credibility with an Audience 46
   Meeting Our Responsibility to Our Audience 51

Conclusion 53
Tables

Table 1  Comparison of legal and in-home paternity testing  8
Figures

Figure 1  DDC corporate headquarters  2
Figure 2  DDC organizational chart  5
Figure 3  Brochure cover 1  15
Figure 4  Brochure cover 2  15
Figure 5  Prophase Genetics logo  23
Figure 6  Image from Prophase Genetics homepage  28
Figure 7  Image from Prophase Genetics navigation bar  29
Figure 8  Image from twin zygosity testing page  29
Figure 9  A) Image from Understanding DNA page  29
   B) Image from Understanding Paternity Testing page  29
   C) Image from Analyzing the DNA Sample page  29
Figure 10  Navigation for Prophase Genetics website  31
### Appendices

<table>
<thead>
<tr>
<th>Appendix</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appendix 1</td>
<td>Brief description of types of family relationship DNA testing</td>
<td>54</td>
</tr>
<tr>
<td>Appendix 2</td>
<td>Graphical representation of time spent during internship</td>
<td>59</td>
</tr>
<tr>
<td>Appendix 3</td>
<td>Sample from forms catalogue</td>
<td>60</td>
</tr>
<tr>
<td>Appendix 4</td>
<td>Client Identification and Consent form</td>
<td>61</td>
</tr>
<tr>
<td>Appendix 5</td>
<td>Single-panel brochures</td>
<td>62</td>
</tr>
<tr>
<td>Appendix 6</td>
<td>Sample information sheet</td>
<td>65</td>
</tr>
<tr>
<td>Appendix 7</td>
<td>Sitemap for Prophase Genetics website</td>
<td>66</td>
</tr>
<tr>
<td>Appendix 8</td>
<td>Prophase Genetics homepage</td>
<td>67</td>
</tr>
</tbody>
</table>
The role of audience in communication has changed over the centuries and can currently be described in a number of different ways. Audience was important in the process of performing a speech for classical rhetoricians, where the speaker was largely addressing an audience and not necessarily considering audience needs. Centuries later, we know that it is necessary to involve the audience when creating effective communication, but there are still questions about when it is appropriate and how in-depth we need to make the process. Porter writes that “careful writers will consider the reader’s prior knowledge, cultural background, age, motivation, and reading ability” (36). Indeed, it is important to consider audience need when developing any new communication, and it is vital when those communications are intended to sell a product.

During my time in the marketing department at DNA Diagnostics Center (DDC), I created a number of web-based projects that are targeted for and accessible to very specific audiences. I followed the guidelines I had learned through the MTSC program when I designed these projects, including audience analysis and usability testing. By understanding audience need before I developed the web projects, I was able to write effective content addressing specific needs.

Through this report, I show how communicators can identify their web audience and, once identified, how communicators can target their audience and convince users to take specific actions. To that end, I provide an introduction to DDC, an overview of my responsibilities, a detailed description of one project that magnified the need to understand my audience, and finally a discussion of how I identified my audience members and then created a website designed to address their needs.

Chapter 1
Introducing DNA Diagnostics Center

Amid the large, barren buildings that comprise the industrial park on the southeast side of Fairfield, Ohio, sits a smaller, one-level building. Visitors are welcomed here by two imposing granite lions guarding the entrance. Once inside, visitors can look past the sculptured waterfall to the bank of windows opening into the Chinese garden that the building surrounds. This garden has been carefully crafted around a small pond, complete with shimmering koi goldfish and resident geese. The interior of the building is decorated in many different aesthetically-pleasing color patterns, including hallways of vibrant blues, reds, and purples. Living plants are strategically placed throughout, adding to the overall feeling of tranquility. All of this luxury is why visitors might be surprised to know that this building is home to one of the most advanced, privately-owned DNA laboratories in the country. (See Figure 1 below for an external view of the corporate headquarters.)

![Figure 1. DDC corporate headquarters](image)

DNA Diagnostics Center (DDC) is a DNA diagnostics laboratory, specializing in legal family relationship testing, forensic DNA testing, and veterinary DNA testing. The people who work for DDC strive to achieve a number of goals as they move toward the forefront of DNA analysis, but their primary mission is to provide accessible and affordable DNA testing to “empower clients with the information they need to discover truth and make confident decisions in their personal and professional lives.”

client needs or requests, making it a fast-paced environment that counters the prevailing atmosphere of tranquility provided by the work environment.

I became familiar with the work environment at DDC when I interned there from 9 May 2005 to 12 August 2005 as part of the curriculum requirements for the Master of Technical and Scientific Communication (MTSC) program at Miami University. In this first chapter of the report, I describe the history, culture, and organization of DDC; the nature of my work; and my contribution to the company’s mission.

The Company
DDC had just celebrated its 10th anniversary when I began my internship, and its reputation as a leader in DNA testing is clear throughout their history. Dr. Richard Lee founded DDC as a paternity testing facility just as public awareness of DNA testing began to grow rapidly, enabling the business to prosper and expand to include family relationship testing, forensic testing (e.g. crime scene testing for DNA), human genetic testing (i.e. testing for genetic diseases/conditions), and veterinary service testing (e.g. sexing avians or testing for genetic diseases). As technological advances were made in testing procedures, DDC updated their laboratory with the latest automated testing systems available. The company was the first to adopt robotics technology in their laboratory processes, and their trademarked Dual Process™, in which all DNA samples are independently tested twice, produces consistently high-quality and reliable results.

DDC is unique in their field in that they employ a team of PhDs who read the results of every DNA test run through the laboratory. Their laboratory process is nationally and internationally accredited, and DDC has achieved perfect ratings in its past seven consecutive inspections, including those by the American Association of Blood Banks (AABB) and the College of American Pathologists (CAP). DDC’s diverse client base consists of individuals, healthcare workers, hospitals, independent physicians, and legal professionals. DDC has also performed DNA tests for guests of Dateline NBC, Primetime, and the Today Show.

Culture
The culture of DDC is somewhat typical of a growing company, in that it is adaptive and evolves with changes in the field and environment. Their mission is clear – to empower their clients with
the information they need to discover “truth” and make confident decisions in their personal or professional lives – and their culture reflects their commitment to this mission.

DDC believes that their employees create the foundation from which they strive to achieve their goals. DDC hires very capable people and in doing so is able to hire individuals with many different cultural backgrounds, providing the essence of a multi-cultural organization. Everyone brings something from their culture and background to the company, and DDC is very supportive of their employees because the company fosters an environment in which differences are understood, respected, and valued. In fact, DDC is developing an open-door philosophy to encourage employees to bring recommendations, questions or concerns through their chain of command.

DDC’s culture cannot be separated from the organization; their culture is a fundamental part of the structure of the organization and plays an integral role in shaping the character and identity of the company. When Dr. Lee created DDC, he introduced aspects of his experiences with traditional Chinese culture. Obviously, the company is influenced by the business practices and overriding culture of the American social reality, but as Gareth Morgan points out in his book, *Images of Organization*, “the influence of a host culture is rarely uniform” (129).³ DDC has maintained certain distinctive characteristics of Asian culture, perhaps most obviously observed in the environment that I previously described and their organization.

**Organization**

The corporate culture makes the organization of DDC somewhat difficult to understand and even more difficult to explain because it evolves as the company grows. The organizational hierarchy of the topmost people in the company is relatively simple. Dr. Lee is founder, owner, and CEO. He is slightly removed from the daily laboratory operations, but he has a highly effective team of directors who oversee company operations in his absence. Figure 2 provides a graphic representation of the organizational structure (as it was in 2005).

My supervisor and writing mentor, Jim Hanigan, was the Director of Marketing and oversaw daily activities of the sales teams, marketing teams, and web team. While Jim was not always

---

directly involved with the projects I worked on during my internship, he was solely responsible for assigning my workload. During the second half of my internship, I worked closely with Dr. Susannie Lee, Director of Laboratory Operations, to create a new forms database and revise the existing laboratory forms.

\begin{figure}
\centering
\includegraphics[width=\textwidth]{ddc_organizational_chart_2005.png}
\caption{DDC organizational chart (2005)}
\end{figure}

**Structure**

DDC is comprised of three main divisions: DDC Paternity and Family Relationship, DDC Forensics, and DDC Genetics. As suggested by their names, each division caters to a slightly different client base. DDC Paternity is the largest division and markets products such as paternity testing, maternity testing, grandparentage testing, siblingship testing, and twin zygosity testing. DDC Forensics markets to law enforcement and legal professionals and provides services such as casework, criminal paternity, databasing, and animal DNA testing. DDC Genetics was the newest division at the time of my internship, marketing to healthcare establishments and individuals who are concerned about the possibility of hereditary diseases. DDC Veterinary is a subsidiary and markets animal DNA testing services to veterinarians and breeders who might need to sex their birds or determine what breeds actually comprise their dog’s DNA.

In addition to the three main divisions of DDC, there are a number of auxiliary companies that function in a subsidiary capacity. These companies market to the in-home audience—individuals who want to discover family relationships but do not necessarily want to follow the more stringent legal process. These some 25 companies exist solely online and use the main DDC laboratory to run all of their tests.
**The Product**
To provide context for my work at DDC, I must first explain their product. DNA testing started out as a niche market, but as the technology becomes more available and the public spotlight hits major stories involving DNA, it is becoming a much more prevalent tool for settling legal disputes or providing peace of mind.

A number of different DNA tests exist, including family relationship testing, forensic testing, and veterinary testing. The projects that I worked on while interning at DDC were primarily concerned with family relationship testing, and while there are a variety of different family relationship tests (see Appendix 2 for descriptions), I am going to focus on the most common test—paternity.

**Paternity Testing**
Many people have a general knowledge of paternity testing, but some people may hold certain negative opinions about it, especially if they watch any of dozens of television shows depicting “deadbeat dads” being accused of fathering a child and then neglecting responsibilities.

Paternity testing is a simple concept; DNA paternity testing determines whether a man **could** be the biological father of a child. A paternity test works because we all inherit our DNA (genetic material) from our biological parents, so the test compares a child’s DNA pattern with that of the alleged father to check for evidence of this inheritance—the most definitive proof of a biological relationship.

In a standard DNA paternity test, the tested parties include a child, the alleged father, and the mother. These three people are commonly referred to as the testing “trio.” The mother’s participation in the paternity test helps to exclude half of the child’s DNA, leaving the other half for comparison with the alleged father’s DNA. However, laboratories can perform a paternity test without the mother’s participation. Results are equally conclusive whether or not the mother participates.

To test paternity, the laboratory examines 16 specific areas of each individual's DNA sample. These areas are called loci (singular: locus). Individuals have 2 copies of each chromosome, so they will have two readings for each locus tested. Once testing is completed, DNA loci are
compared. Readings for each tested individual will have two numbers. For each locus, one of the
child's numbers must match one of the mother's numbers for that locus, and the other number,
the biological father's. To illustrate:

If the **Mother**=(A,B) and the **Father**=(C,D),
then the **Child** can be (A,C); (A,D); (B,C); or (B,D).

A paternity index is determined for each match. The paternity index is a calculation of how
frequently that match occurs in a specific population; it is the likelihood that the tested man (in
the scenario above) is the biological father of the tested child based on that one locus. But one
locus is not enough to conclusively determine paternity, so most laboratories conduct testing on
at least 16 different loci.

Each locus has its own paternity index. If all the loci match, the paternity indices for each are
combined, and a combined probability of paternity is calculated.

The result of a DNA paternity test is either an exclusion (the alleged father is not the biological
father), or an inclusion (the alleged father is considered the biological father). The DDC
laboratory routinely generates probabilities of 99.999% and higher, meaning the tested man is
99.999% more likely than any other man in his race population to be the biological father of the
tested child. (Because only 16 loci are tested, there is a chance that a man in another race
population could have a similar result.)

If the tested man does not match the tested child on a locus, the paternity index for that locus is
0. If there are 3 or less non-matches, the samples are examined further to obtain conclusive
results (DDC provides additional testing of up to 25 total markers). If there are 4 or more non-
matches, it is concluded that the tested man cannot be the biological father of the tested child.
The probability of paternity is 0%.

**Legal vs. In-Home Testing**

There are two types of paternity testing: legal (chain-of-custody) and in-home (see Table 1 at the
end of this section for a simple comparison). The primary difference between the two tests is the
chain of custody procedure followed during a legal test. Chain of custody is a process used to
maintain and document the chronological history of the samples (who is in control of the
samples at what time). In order for the chain of custody to be documented, when individuals go
to a collection site they must provide personal information, photo identification, and a
thumbprint.

During legal testing, an impartial third party (e.g. a hospital) collects the DNA samples after
accurately identifying each patient. Having an independent third party collect the samples helps
guarantee the identities of the parties involved, as well as any court or government officials, that
the correct individuals were tested. With in-home testing, the patient collects his or her own
samples at home, and the true source of the samples cannot be confirmed.

The chain of custody must be used and documented in order to be court-approved; only then can
the paternity test result be used for legal purposes, such as claiming child support, Social
Security, or inheritance benefits.

In-home testing is sometimes known as “peace of mind” testing because it can do no more than
offer assurances to an individual about a biological relationship. Though this type of testing is
the only choice for some people, it is possible for this product to be misused because there is no
way to confirm the results. Dishonest people could use the test to their advantage by switching or
substituting samples from individuals known to have no familial relationship.

<table>
<thead>
<tr>
<th>Legal Testing</th>
<th>In-Home Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Samples are from buccal (cheek) swabs</td>
<td>▪ Samples are from buccal (cheek) swabs</td>
</tr>
<tr>
<td>▪ Samples are taken by a third party (i.e. someone at a physician’s office or at a hospital) from the individuals to be tested</td>
<td>▪ Samples can be taken by anyone from anyone</td>
</tr>
<tr>
<td>▪ Tests require photo ID and thumbprint</td>
<td>▪ Tests do NOT require identification</td>
</tr>
<tr>
<td>▪ Tests are run through DDC’s Dual-Process</td>
<td>▪ Tests are run through DDC’s Dual-Process</td>
</tr>
<tr>
<td>▪ Results are admissible in court</td>
<td>▪ Results are NOT admissible in court</td>
</tr>
<tr>
<td>▪ Typically costs more than $450</td>
<td>▪ Typically costs no more than $200</td>
</tr>
</tbody>
</table>

Table 1. Comparison of legal and in-home paternity testing.
The Work
During my internship, I worked with the four-person web team within the Marketing Department; the team consisted of two copywriters, a web developer, and a graphic designer. I made the fifth member of this team. This group was responsible for far more than just websites, as they developed most of the promotional material for the company. They worked closely with nearly every department in the company and the laboratory to provide documents that are of the highest quality in terms of content, accuracy, and consistency.

My official title within the web team was copywriter, and it meant that I would be asked to write and edit copy for a number of different projects, including both print and multimedia projects. At the beginning of my internship, my supervisor, the web team, and I developed a list of projects for me. These projects can be easily divided into three key categories: commercial websites, client forms, and promotional materials. All three types of projects are discussed in Chapter 2.

Contribution
The work I completed at DDC furthered the company’s mission by supporting its main objective of providing the most accessible and affordable DNA testing services for their clients while empowering their clients with the crucial knowledge to help them make informed decisions. Specifically, I wrote content for the websites and print marketing materials intended to provide the clients with vital information to help them choose the most appropriate test for their specific situation, and I worked to make the information accessible and easy to understand for the largest number of people in the target audience.

The subsequent chapters of this report detail my internship experiences. Chapter 2 provides a brief overview of my projects; Chapter 3 provides a detailed description of my work creating a commercial website; and Chapter 4 discusses how to target an audience.
Chapter 2
Completing Internship Projects

During my time with DDC, I was involved with various different projects and activities that allowed me to contribute to the company’s mission by using a number of different skills, from designing an accessible website to creating a new tracking system for forms used by the laboratory. At the start of my internship, I was given three main goals: generate commercial websites, update laboratory forms, and create promotional materials. These larger goals were broken down into smaller, independent projects with specific objectives.

- Generating commercial websites
  - Creating a new website for Prophase Genetics
  - Revising the website for DNA Roots
  - Designing a new hybrid website for DNA Genetic Connections

- Updating laboratory forms
  - Reviewing forms
  - Cataloguing forms
  - Revising forms

- Creating promotional material
  - Tri-fold brochure (main marketing brochure)
  - Single panel brochures
  - Information sheets

In addition to these major projects, I was involved in a number of other activities that did not, individually, absorb significant amounts of time (Appendix 2 shows how my time was spent).

Generating Commercial Websites
During the first half of my internship, roughly 85% of my time was dedicated to producing three commercial websites for DDC, websites dedicated to specific types of DNA testing. In order to prepare for the website project, I first completed a critique of nearly 60 different paternity testing websites. I searched the key phrase “paternity testing,” using Google, Yahoo, and MSN. I reviewed all of the sites listed in the first three pages of results and wrote a brief summary of my
impressions of each website. This initial project allowed me to discover the different websites that were already available, and it helped me understand what might be missing from the sites I would later rebuild. Additionally, the web team did not tell me which sites were theirs, so they received objective feedback about some of their own content. (Compared to similar websites, the DDC sites fared pretty well—they were usually informative and easy enough to navigate).

After I finished the website critique, I began developing a new website for a DDC company called Prophase Genetics, one of the main sites targeting an audience interested in paternity testing. This particular company had an existing website, but it was not much more than a homepage and an order form. The site needed a visual refresh, but it also needed so much new content to make the site accessible that management had decided a completely new site was necessary. My job was to recreate the Prophase website and, in doing so, begin to recreate the company’s public image. I met with the web team and the director of marketing to establish the purpose and target audience for this website. We determined that the primary goal was to produce an interesting, accessible site that would entice users to read the different information about services offered and then “convert the sale” (i.e. the client would purchase a product). With this overall goal in mind, I divided the work into distinct objectives to guide my project plan and website production.

The first step I took was to define the audience and then, based in part on my discussion with the rest of the team, create a sitemap that could be easily understood and accessed by users. After the sitemap had been approved by both the web team and by marketing, I used it to put together content for the website. I wrote all the content for this website, pulling the information from a number of different sources, including the existing Prophase site and reference works on DNA testing.

At the same time I was writing content, I was also beginning to design the website based on the decisions we had already made about purpose and audience. I explain the entire process I followed while creating the Prophase website in Chapter 3.

**Updating Laboratory Forms**
As I started my internship, DDC was beginning a new branding campaign with the plan to implement it over the course of one year. With the new branding campaign, DDC hoped to
identify themselves as a leading DNA testing laboratory and experts in the field. They wanted to appeal to both the scientists/peers in their field and to consumers who would actually purchase their products. As part of this new branding campaign, all of their promotional material and the forms used by the sales team and in the laboratory needed to be reviewed. This extensive review was completed by Marketing with substantial input from all other departments. I was not involved in the larger review; I was focused on reviewing the forms used to provide service from the lab.

After my initial review of the forms, the project team (comprised of employees from sales, marketing, the lab, and the web team) decided which forms required revision to align with the new initiative and reflect DDC’s new visual identity. It became my job to collaborate with the graphic designer to make the necessary revisions. Additionally, because DDC had no system in place to track all of the forms used by the different departments to collect and store client information, I concurrently created a new system to store and track forms.

**Reviewing forms**

I received hard copies of all of the forms from the various departments and was asked to review them to begin the project. I first separated all the forms into different categories because some departments were using the same form type and did not realize they had different form versions. This disparity occurred because the company grew so quickly, different areas created their own forms to fill a need and did not know that another area in the company might have the same need. There were also different versions of the forms being used because it was not always communicated when a form was updated. The forms used by the laboratory, such as the patient identification form, were the most important and were necessary to update first.

I interviewed employees working in Customer Service because they received all new client information forms and began the testing process. These individuals actually used the forms after the client had filled them out, so it was imperative to get their input on this project. They were able to tell me what information is necessary to begin the testing process and what information I could remove from the form. Additionally, the Customer Service reps were also able to tell me the areas that seemed to cause the most difficulty for clients and give me an idea how I might revise the format.
**Cataloguing forms**

While I was reviewing the forms, I created a catalogue of the forms because no comprehensive list existed. I separated the forms and grouped them by function. (See Appendix 3 for a sample page from the forms catalogue.) My supervisor then sent the catalogue to every department to make sure that all of the forms used by specific departments were included in the catalogue. I began work on the next phase, revising the forms, as soon as I received approval of the catalogue from each department.

**Revising Forms**

There were so many forms used for different functions in the sales and testing process that I found it necessary to create a Forms Guideline, essentially an in-house style guide used to ensure that all revised and new forms would be consistent with the new visual identity of DDC. The guide I created included descriptions of the minimum standards for all existing forms and an explanation of the new indexing system that I was designing to track forms.

Once the new guidelines were approved, I began to revise the most important laboratory forms. The graphic designer I worked with was helpful on this part of the project because he was knowledgeable about how to create accessible forms and what formats work best for printing in mass quantities. We knew that the forms would be reproduced using a risograph, a multi-functional digital printing system, so we chose to make each set of forms one color that corresponded with their function. For example, we made all patient information forms blue and all chain-of-custody forms black and white.

When I interviewed employees in Customer Service, I found that one of their main concerns was that many clients did not sign the *Client Identification and Consent Form*. Any individual requesting a DNA test is required to provide their consent, and it is not enough for them to simply send in a form implying consent; DDC has to have their signed consent form on file prior to any testing. The graphic designer and I worked on several different ways to make the signature areas more obvious, and we took samples back to the employees in Customer Service. We were not able to make the lines prominent enough in our first drafts, so we opted to use thick arrows with the words “sign here” written directly on them. (See Appendix 4 for the final draft). In this case, the message is printed directly on the form and is offset to draw attention to the necessary signatures.
Creating Promotional Material

In addition to generating commercial websites and revising the laboratory forms, I contributed to the promotional material for which the web team was responsible. These materials included a tri-fold brochure (the main marketing piece), single-panel brochures, and information sheets.

**Tri-fold brochure**

As part of their branding campaign, DDC developed a new tri-fold brochure, highlighting the most important points about paternity testing and the company. The brochure was intended to be the main print marketing piece and would be sent out with every client packet mailed to individuals who had expressed interest in our services. It would also be displayed in hospitals and physician offices. The intended audience for this brochure was broad and included both people who had already been to the DDC website and contacted the company indicating their interest in DNA testing as well as people who had never been exposed to their services but might have found the information when they were visiting their obstetrician. We knew that the brochure was a “catch-all,” so we knew it would have to include high-level content.

This brochure was an entirely new marketing piece, so there were no previous materials to serve as a reference. The web team had been developing the brochure prior to the start of my internship, but I was asked to review it for design and content.

The web team had produced two different layouts; each had a different front cover, and it was important for us to know which was more appealing to our public audience. See Figures 3 and 4 on the next page for the two possible front covers. The first cover was intended to evoke an emotional response in potential clients because paternity testing is a large part of the business, and children are the innocents when there is a question of paternity. The second cover was intended to bring about a similar emotional response, but this cover also included visual elements (e.g., horizontal lines similar to what might be used to diagram a hard drive) meant to bring the scientific aspect of DNA testing to mind. The content on the inside was the same for each brochure, and it was written in alignment with the new brand standards.

We tested the document with people in the general public to understand audience preferences. I created a brief survey asking questions about which design they (as potential customers)
preferred and which brochure they might pick up and read based on the front cover. The majority of people we surveyed chose the first cover (with the small child), and this became the one DDC used in their new brochure.

These brochures were printed for distribution in late July, and DDC began sending them in each new client packet. There were additional changes made to the brochure, such as the type of paper and coloring process used, so it was still a work in progress when I finished my internship.

![Figure 3. Brochure cover 1](image)

![Figure 4. Brochure cover 2](image)

**Single-panel brochure**

Each potential new client was to receive the tri-fold brochure, but in order to cater to more specific audiences, our team was asked to create single-panel brochures for very specific potential clients. For example, we created brochures for standard paternity testing, DNA
banking, and Native American testing (testing to determine if an individual is a Native American). See Appendix 5 for examples of these brochures.

The main purpose of the single-panel brochures was to provide just enough information to attract people to the company but leave them wanting to learn more about testing for their specific situations. I assisted with writing the content for these brochures, and the toughest part of this assignment was including enough information in such a small space, even though these documents were not intended to provide much information other than the type of testing, fee schedule, and contact information. I made sure that clients knew they could learn more about DNA testing from the information sheets they were sent after they contacted DDC.

**Information Sheets**

DDC tailored their client packets to fit the needs of each client, so that someone who called to inquire about paternity did not have to sift through the material about siblingship or grandparentage testing. In order to effectively tailor these packets, DDC wanted to create new information sheets for each type of DNA test. We needed to create sheets for the most requested tests, so we started with information sheets for paternity, maternity, grandparentage, siblingship, and twin zygosity testing.

These information sheets had to comply with the new DDC visual identity standards, so I created two different mock-ups. I then presented the mock-ups to the graphic designer and asked him to make sure they were in compliance. We also discussed which design could allow us to fit the most information on the page while still making the information accessible. (See Appendix 6 for a sample information sheet.) We decided to use a question and answer format so readers could quickly scan for answers to the questions they might have. These sheets were still going through the approval process at the time my internship ended, but I completed 18 different sheets.

These projects and major activities validated and enhanced my understanding of the major principles of communication and design I learned in the classroom. In order to more fully illustrate some of these principles, I discuss in the next chapter strategies of website design and explain the rhetorical principles that guided many of my decisions while creating a commercial website.
Chapter 3
Developing a Commercial Website

As I discussed in the last chapter, creating commercial websites absorbed the first half of my internship, and in this chapter, I discuss the development of a website for one of DDC’s online companies, Prophase Genetics (http://www.prophase-genetics.com). To create this website, I used a process similar to that explicated by Lynch and Horton in their Web Style Guide\(^4\), though my process was much simpler and was integrated with suggestions from other references\(^5,6\). In order to illustrate the strategies I used while creating this website, I discuss my process in terms of the following elements of website development:

- Planning
- Developing
- Implementing
- Following up

### Planning the Website

Prophase Genetics is an online company specializing in in-home paternity testing services; the company had an existing website when I started on the project. Unfortunately, the website was a graphic nightmare in various shades of purple and orange, and it only included four total pages: an intro (landing) page, an explanation-of-paternity page, an ordering page, and a “contact us” page. The website was not performing well in any relevant measure (e.g. site traffic or sales), and it was certainly not attracting much business. My job was to overhaul the website, and in doing so, reinvent the company’s image and online presence.

The normal website redesign process usually begins with a heuristic review of the existing site, meaning someone reviews the existing website to determine its strengths, weaknesses and potential usability issues. I am glossing over it here because it was not completely necessary for the Prophase site because we did not use much from the four pages that existed. However, this

---


review is an important first step for most websites, and a good resource for more information about this process is Jakob Nielsen’s website, useit.com. In brief, the heuristic review “involves having a small set of evaluators examine the interface and judge its compliance with recognized usability principles.” Typically, it is good to have several individuals (Nielsen recommends three to five) go through your site to identify usability issues. If the existing site had been more substantial, we certainly would have started with this type of review.

The first step I took to begin the redesign was to meet with the web team and discuss the goals for this website. We decided that we needed to limit the scope of the site by concentrating on “private” paternity testing. A number of adjectives can describe in-home paternity testing, so we chose to focus this website on one phrase (“private”) for two reasons: 1) we wanted to appeal to a specific audience, and 2) we wanted to improve search engine rankings for that one term. The other online companies that DDC held were similarly focused for different search terms. For example, a second company’s website was focused around “peace of mind testing” testing. Really, the two companies offered the same types of test, but we were trying to attract different audiences who might use the different key words in search engines. For Prophase, we were trying to attract people who needed to conduct the testing privately (and who did not need legal testing). The second company was catering to those people who really just wanted to know the results for their own peace of mind (and had no intention of sharing the results).

**Purpose**

Once our team identified the specific focus of this website, I was able to develop the main purpose—to advertise products and services because it is a commercial website, and the end goal is to convert a sale of one of the tests offered through Prophase. I found it necessary to focus the purpose of the site more narrowly in order to proceed with the design process because websites can use several different methods to convert sales. I determined that there were three main objectives to the larger goal of selling paternity tests: educating users about the company and product, directing sales, and supporting customers. I used these three objectives to solidify the direction of the website.

---

**Educating users.** One way for us to convert sales was to inform users about the services and products the company provided. Providing information would not only educate users who were actively looking for our products, but it could be used as an effective marketing tool to sell products to people who landed on our website while they were only in an information-gathering search. These users might not yet be interested in purchasing our product or services, but I found that it was important to include enough information about DNA and paternity testing to make them feel as though they were learning something by reading through our website. The longer the website could retain users’ interest, the better chance we had to convert them.

**Directing sales.** Once we had the attention of the users, we needed to provide an option for direct sales. I had already planned to include contact information (phone number, fax number, and email address), as is included on most commercial websites, but I also wanted to make sure that each potential client had the option of an immediate transaction. The standard contact information might lead to some product sales, but it was very important to provide an option that did not require the extra time of a phone call, particularly if the potential client was busy, used to buying products online, or wanted to keep some depth of privacy.

**Supporting customers.** After we converted the sale, we would still need the website to provide customer support. Potential clients are more likely to purchase products from a company that can respond to questions or concerns, so it was important to include a contact page for them to refer to after the sale.

I considered each of the three objectives from the perspective of the company, but I knew it was equally important to consider the perspective of our target audience. Karen Schriver asserts that there is an inherent difference between advertising and document design because “advertising focuses on writing and visualizing in order to promote the goals and values of organizations rather than to promote the goals and values of readers” (11)\(^8\). Indeed, a number of commercial websites appear to have been written with the best outcome for the company in mind, but they seem to lack a sense of their audience and what that audience might want or need. In a report in *Communications of the ACM*, the authors argue that “successful Web sites should be designed to address the multiple goals of the owner while taking into account the multiple audiences of the

---

site” (114). The authors then go on to emphasize that the success of an individual website is “audience specific.” I had established the goals of the Prophase website from the standpoint of the company, but I recognized the need to assess who might want to use the site and for what reason.

**Audience**

The ultimate goal of the website was to sell in-home paternity tests, but who would buy these tests and what information would they need to be persuaded to purchase their test from Prophase? Clients had a variety of different reasons for wanting a DNA test, and I needed to understand our target audience before I could make design decisions for the new website. I followed a process that Schriver terms a “classification-driven audience analysis” (155). I met with the other web team members, and we collectively classified the audience based on personal and social demographics (e.g. purpose for going to the site, age, income level, etc.). One drawback of this model of classification is that, although we considered the needs of different potential clients, we could only provide a view of the audience from our perspective. To help balance our assessment, we employed part of another model of classification. We drew from previous experiences with actual clients, allowing us to use feedback-driven audience analysis (160-62). By combining these models of analysis, we were able to develop an understanding of our potential clients and what they might need from the Prophase website. I discuss our conclusions in detail in the next chapter.

Once we had determined the characteristics and needs of our potential users, I was then able to employ a number of different rhetorical strategies to design a website that would meet their needs.

**Developing the Website**

A website comes to fruition only after intense consideration of all aspects of its design, so it is important that I provide an overview of the content, site design, page design, and navigation – as well as our intentions behind these design aspects.

---

As I briefly mentioned earlier in this chapter, Prophase Genetics had an existing website, but it contained only information about DNA testing, and the main marketing strategy relied on how easily potential clients could find the ordering information. I needed to make sure the new website offered enough information for potential clients to answer their basic questions about DNA and the testing procedure and to clarify what products and services Prophase provided.

The first step in the actual design process was to create a site map for the website (see Appendix 7). I planned the different pages I wanted to include in the site based on the information I had been provided and the additional research I had done. I divided the information into organized components to create the pages and the main links connecting related pages. This process is similar to “chunking information,” a process presented by Lynch and Horton in their book that explains basic design principles for creating websites (38). They draw attention to the different ways in which short “chunks” of information are more suitable for the online environment. Using chunks of information, instead of long passages of text, helps designers organize their sites and alleviates the frustration users might experience if they encounter lengthy texts.

For the Prophase website, I chose to include relatively standard information about paternity testing and other DNA testing services available, but one of the most important elements on this website was a description of the three-step testing process. This description was not included on other sites at the time, and I thought it would be helpful for potential clients because it would help them understand what happens after the DNA samples are collected. I used it to offer potential clients certain reassurances. The language I used to explain the testing process is simple enough for the general user to understand, but it is unmistakably scientific. I chose to include the testing information because, while it might seem to just be informative, the intended effect is to persuade potential clients to purchase the at-home test kits. According to previous research undertaken by DDC, people were more likely to purchase a product if they feel that the laboratory is credible. Some people would purchase a test, even if they did not fully understand the explanations. So we used this approach primarily to convince potential clients who had not already made the decision to take a DNA test that Prophase was a reliable company, and the information provided reassured them that the company was not trying to take advantage of them but that the company was trying to help them make an informed decision.
While I was writing the content for the Prophase site, I looked through several of the other websites that DDC had at the time to see if there was content that I could use in any way. During this perusal, I noticed certain rhetorical strategies aimed at keeping the consumer unaware of the fact that the online company they were ordering from was nothing more than a commercial illusion. For example, on one website, we said “our laboratory” instead of “we,” giving consumers the idea that the company actually does the testing. However, if anyone inquired, we could say that “our laboratory” actually means we use DDC’s laboratory.

I ended up using similar rhetoric on the Prophase site, though initially it was more to remain consistent than anything else. In retrospect, I do not think that it really matters who performs the DNA test or where it is performed. The final results are what matter to clients.

As soon as I was finished with the first draft of the text, I sent a Word file to the other team members and to my supervisor for review, and while they were looking over the content, I began designing the website with basic HTML and cascading style sheets (CSS).

**Site Design**

I had an idea of what the basic structure of the website should be at this point because I had already completed an audience analysis, created a sitemap, and written the content, but I still needed to develop a website that was clearly distinct and separate from the visual identity of DDC because Prophase Genetics is its own company, albeit only online.

This project was the first website I completed during my internship, and to help me along, the web team suggested that I use a template for this website, rather than build it from scratch. They had had previous success using professional templates from Netpaths.net ([http://www.netpaths.net/templates](http://www.netpaths.net/templates)), so I searched their website for a suitable template. Once I found three choices that I believed were appropriate, I met with the web team to discuss the pros and cons of each template. We chose one template to purchase, and I downloaded the files.

Using a template does not mean that all the work is done for you because everyone wants to make design changes in order to create their own unique identity. I had the template, but I then had to create the CSS files that would dictate design on the site, and I had to locate the right font
and images to convey the company identity and message. So while using a template sounds like it should be considerably less time-consuming than designing a site from scratch, this was not the case.

**Page Design**

I chose a template with bright and cheerful colors (light greens, blues, and bright yellow) to create an inviting site. Potential clients already have enough turmoil in their lives, and they needed a website that would give them a positive feeling about DNA testing and validate their choice to pursue it. I also wanted to give users a sense of the new company image—a company at the forefront of DNA testing that caters to a private audience. I started by creating a new logo and slogan for the company. I chose yellow to correlate with the light blue and green of the template, and the three curves represented the standard paternity testing trio: the child, the mother, and the (alleged) father (see Figure 5). I also drafted the new slogan as part of the image overhaul.

![Prophase Genetics logo](image)

**Figure 5.** Prophase Genetics logo

I set the overall size of the website so that the entire page (left to right) would be visible in any browser with the most common settings because I realized that some users might not know how to scroll from left to right if the entire page were not visible at once. I also made sure that the main content block did not exceed 800 pixels in width so potential clients could easily print out any information they might want to read later.

I used CSS to define colors, fonts, and layout to improve content accessibility and design flexibility. Williams suggests that companies should use consistent repetition to create a strong sense of agreement throughout a website, allowing users to know they are in the same website (117). Using CSS files enabled me to easily create repeating fonts and links throughout the website, and I made consistent use of the color scheme to enhance the feeling of unity.

---

Color

Color as a rhetorical device is a very important consideration for any communication that calls attention to certain aspects of the design. Choosing the color to augment the appeal of the website was a fundamental and critical decision. Effective, distinctive and credible color choices could improve the accessibility of our content and provide an immediate sense of our site (and company) to users when they landed on our homepage.

I used color to create a new corporate identity for Prophase, and in doing so, employed the communicative properties of color. Color conveys meanings in two primary ways—through expected associations and psychological symbolism developed from cultural and/or contemporary contexts, including historical, religious, political or linguistic associations. Though DDC was expanding its larger business overseas—and an international audience could potentially access the site—the Prophase site was largely intended for a domestic audience. I kept this in mind while researching what colors I wanted to use on the new website.

The colors I chose to use on the website are all present in the top banner, so this provides a nice tableau to discuss the use of color on the Prophase website. The three primary colors are bright yellow, sky blue, and spring green. Yellow is used sparingly; I used it only in the new logo because it can become overpowering. Green and blue are carried through to the rest of the site, including the headers and navigation. A useful resource for understanding the meanings and attributions of specific colors is the Pantone color book. This book examines the connotations that colors carry with them and how best to use individual colors.

Some influential factors on the perception of color include the specific shade, quantity, placement, and the combination (interaction) with other colors. Yellow is used as the new logo, and it is placed directly in front of “Prophase Genetics” to draw attention to the company name. Yellow is generally associated with “optimism, enlightenment, and happiness.”

---

produces a warming effect, but bright yellow is effective for attracting attention. Using a small amount of bright yellow (as I did with the logo) can highlight an important element of the design.

The second color I chose was a light blue, primarily because of the image of sky behind the child. However, this color proved a good choice because blue is often “seen as trustworthy, dependable, and committed.”\textsuperscript{12,14} Further, it symbolizes trust, loyalty, wisdom, confidence, intelligence and truth.\textsuperscript{14} This choice of color enhances the ethos of the website because the color associations are also directed toward the company, meaning users will likely feel confident that the company is reliable and trustworthy. Blue is also considered beneficial to the mind and body, often producing a calming effect. This color choice was beneficial because potential clients might already be upset before coming to the Prophase website, and the color scheme provided a sense of tranquility.

The last color, and the one I used most in the Prophase design, was green. The shade I chose was bright and clean, nearly a spring green. This color is the color of nature, and it symbolizes growth, harmony and freshness.\textsuperscript{12,15} Green also has a strong emotional association with safety (green means go). When potential clients come to this website, the green used throughout suggests stability and endurance, so clients will feel the company is credible and they will be safe doing business with it.

Colors helped create the overall sense of the site, but once I decided on the main color scheme, I needed to choose fonts that would maintain this feel and continue to build the experience for potential clients.

\textit{Typography}

While visual rhetoric has become a subject of intense scrutiny, there has been relatively little research into typography as part of that investigation,\textsuperscript{16,17} but it is important to consider because


the choice of font can construct or damage ethos. Two relatively recent studies have dissected the way in which readers process typography. In the first, a study of readers’ personal judgments of typography, the objective was to begin addressing the “lack of experimental studies examining the effect of rhetoric on typography” (221). Results of the empirical study showed that readers tend to assign personality traits to pieces of text. The second study, an extension of the first, showed that typography does play a role in the way readers interact with a text (22). Knowing that text carries certain connotations simply by appearance, I had to carefully consider the typography chosen for the Prophase website.

Every typeface has its own distinguishing characteristics. Though many may look the same onscreen, each typeface has subtle nuances that make it different than others in its class. Additionally, onscreen types are rendered with much less resolution than text on a printed page, so the typeface chosen for a website must be both legible and readable.

Robin Williams discusses readability in *The Non-Designer’s Type Book*, where she emphasizes that the most important thing to remember is that any part of a typeface that draws attention to itself decreases readability (33-41). For example, different strokes or contrasts between forms call attention to individual letters, therefore making the overall text more difficult to decipher. In general, serif fonts are easier to read in large blocks of printed text, but sans-serif fonts are easier to read onscreen. Blocks of website text are generally kept short to enhance readability; thus, sans-serif fonts are better suited for a website.

Williams also discusses legibility, by which she means whether or not a small block of text is instantly recognizable (43-49). She points out that it is very important for text to be legible, especially in situations where readers will be skimming the text or scanning pages. In order to direct the attention of potential clients and to keep them attuned to the Prophase website, I created specific and obvious pieces of text to focus their attention on different sections of the website. For example, I started with the main banner and the company name. I used the Mac font Optima, an understated sans-serif font, to follow the guidelines of readability and legibility. This font is extremely subtle in its use of serifs, but there is enough slant at the ends of the letters that

---


the general appearance is that of a serif font. However, it is different from the other fonts used on the website, and it is easy to read, so it follows that the name is legible.

Ensuring that the font used for the Prophase website was both readable and legible helped enhance the appeal of both credibility and logic because potential clients were able to find the information they needed to make an informed decision. I did more than just use readable type though. I created a visual structure that contains the information to improve the way text appears onscreen. Anne Frances Wysocki briefly discusses the “overall shape of text” where she states that “because we have come to associate different kinds of texts...with different shapes of type on a page (and hence on a screen), page composers can arrange the shape of text to achieve different ends” (130). The design of the Prophase website was not that unusual (intentionally so because we do not want to intimidate new users), and I took care to create an easily recognizable section for the main content. The text itself was manipulated around images and design patterns so that the appearance was similar to what one might expect on a printed page, so that users who were unfamiliar with websites would not feel alienated when they reached the Prophase site.

Based on the intended audience and the purpose of the website, I chose to use three different fonts on the website (Optima, Tahoma, and Garamond). I elected to use serif headers and sans-serif body text to (technically) enhance legibility. The fonts I chose are actually groups of fonts, set with the first choice followed with other relatively similar fonts behind it in case individual computers could not display our first-choice font. For example, the group of fonts for the body text was “Tahoma, Verdana, Arial, sans-serif.” So the command in the CSS file was:

```css
p {
  font-family: Tahoma, Verdana, Arial, sans-serif;
  font-size: medium;
  text-decoration: none;
  text-align: left;
  vertical-align: top;
}
```

Imagery

Color and typography were very useful rhetorical tools, but perhaps even more useful for this website (where users would be scanning quickly for a sense of the site) was the use of images to convey messages. In his book, *Writing Space*, Jay David Bolter discusses what he terms “the breakout of the visual” (47-76). Bolter describes how, traditionally, people have used text to manipulate the position and responsibility of images through placement and explanation, but images are no longer controlled and constrained by the surrounding text. Websites are good examples of communication where text does not constrain the images, and I enhanced the Prophase site by using images intended to evoke a response in users that then served to reinforce the message. The purpose of the images was to draw users in when they first access the site and to renew their interest with each new page, so I chose photographs of children, rather than of families or abstractions.

As Lupton notes, corporate identity is forcefully portrayed through images and logos, so I wanted to use images that correctly conveyed the technology and scientific focus of the DDC laboratory and also the family aspect of paternity testing that Prophase offers. I did this by taking a different approach in different sections of the website.

The first and most prominent image I used in the website appears on the homepage banner and is a toddler-age child holding a white dandelion. This image was included with the template, and it is one of the main reasons the web team chose the template. I included it in the banner to immediately alleviate tension because the child is happy and smiling – the image is intended to give users a sense of ease about the website and, subsequently, the company. I removed the image from the banner I used on interior pages because it is a large image and took up too much room on these pages, making it necessary for users to scroll for information.

I chose additional images to include on many of the interior pages based on several notions: DNA testing is a positive act; it is important to keep the child’s best interests in mind; and proving/disproving paternity can offer a certain peace of mind. For example, I used images of children for the paternity testing, maternity testing, other DNA testing, twin zygosity, and siblingship testing pages. I attempted to vary the feeling communicated by the images. Some, like the images used for the navigation bar and the other DNA testing page, hint that the child portrayed in the image is unhappy without knowing her biological father. Others, such as the image used for the twin zygosity testing page, provide a much lighter feeling and insinuate that this testing is a good idea because the image conveys the notion of partnership—of closeness.

In contrast to the photos used for the testing pages, the images used to enhance the discussion of DNA and the testing process are scientific and are intended to reassure potential clients that the laboratory is credible and that their results will be reliable. The image used on the Understanding DNA page is an artist’s rendering of a simple strand of DNA, and this is used simply to attract attention (see Figure 9 A). The two pictures used for the Understanding Paternity Testing and Analyzing the DNA Sample pages are both accurate photos of different parts of the testing process, one is an image of the gel (Figure 9 B) and one is an image of the machine that runs samples (Figure 9 C).

![Figure 7. Image from Navigation Bar](image1.png)

![Figure 8. Image from Twin Zygosity Testing Page](image2.png)

---

![Figure 9. A) Image from Understanding DNA page, B) Image from Understanding Paternity Testing page, and C) Image from Analyzing the DNA Sample page](image3.png)
All of the images used on the Prophase website, when taken together, presented a corporate identity. The old site did not make much use of imagery to build the company’s identity. In the new site, the images conveyed the message that Prophase is interested in what is best for their clients and that they have the scientific knowledge and technical expertise to back their claims.

**Navigation**

Navigation is obviously part of a website’s design, but it is important enough to warrant a separate discussion because without easy-to-use navigation, the rest of the website’s design will not matter to potential clients who quickly move on to the next website offering the same product.

The navigation schemes most easily recognized are the top banner and left-side navigation bars. I used both in the navigation scheme for this website, and I included a smaller (three-link bar) at the top of the page and a more indistinct navigation bar at the bottom. The reason I chose to use both the left-side and top banner is simple; I wanted to ensure potential clients could find the most important pages easily, whether they were accustomed to a certain type of navigation or had very little experience with website navigation.

I created a website navigation scheme that is inclusive, so users could enter the site through any page (not just the homepage) and could orient themselves quickly. Users would not necessarily have the time or patience to search for navigation—it had to be instinctive and instantly clickable. Complicated navigation could make potential clients uneasy and more likely to leave the site to find a competing website that is more accessible.

The top banner navigation was static; it remained the same even though the banner did change slightly from the main landing page to the interior pages. This top navigation bar used large buttons to draw users’ attention, ultimately making the website more accessible. This menu was on every page and included repetitive links to the most important pages: *about us*, *3 easy steps*, *paternity testing*, *other services*, *testing fees*, and *order a test*. (See Figure 10.) The supportive, informational pages were not included on this menu because I wanted to ensure users could find the information they needed as soon as possible without having to click multiple times.
In contrast to the top banner navigation, the left-side navigation was dynamic. Users who were slightly more comfortable with website navigation would be able to use the left-side navigation with no problem, and they would be able to find all of the supporting material and information. I was originally planning to create an interactive navigation bar using Flash – a short list of links would appear when a user rolled over the linked text. I decided against this option because I did not want to deter users who are less familiar with the online environment; I did not want potential clients to leave the website because the navigation seemed too advanced. I solved the problem by splitting the left-side navigation on the interior pages (see Figure 10).
Section 1 of the left navigation (on interior pages) contained links to only a specific area within the website. For example, in Figure 10, the links pertain to the three-step DNA testing process. These links change to correspond with the section of the website the user is currently viewing.

Section 2 of the left navigation contained all of the same links that were listed on the homepage—all of the key links to the interior pages—so that the main navigation remained intact throughout the site. I did this to increase usability.

The two sections of the left navigation were divided by a thin grey line to make the difference obvious to users. Additionally, all of the section 1 links were associated with a blue graphic, and the section 2 links were associated with a grey graphic to further differentiate between the two sections. This approach relies heavily on Williams’ fundamental design principle of contrast, where she urges designers to keep similar items the same and different items different. Users should have a relatively easy time figuring out the navigation because all related links were grouped together and colored differently from the other links.

Once I had the site structure developed and the navigation in place, the major work was done, and I began to place the content I had written within the appropriate pages. This process took very little time because everything had been planned, so I quickly sent the website to the team for final approval before the launch.

**Implementing the Website**

Even before I received final approval from the team, the web developer placed the website on the server for testing. The domain name (prophase-genetics.com) had already been identified and reserved from the previous website. During the testing phase, I was able to make minor changes to the content and correct browsing errors that appeared in different areas.

The Prophase website was launched shortly after the conclusion of the testing phase in mid-June 2005 (see Appendix 8 for final homepage design). Creating the new website took nearly two months. For a site of this size, the time to launch was fairly short, especially considering the content was all new and had to be written in that time. For a frame of reference, my current employer recently relaunched a considerably larger site in nine months. The difference, however, is that the larger site had absolutely no new content written during the relaunch period, meaning
they simply took the existing content and put it into a new design. All the work that was done for the larger site was CSS and copy/paste work to get the content into the new templates. We are working on content now and have projected that it will take 18 months to complete.

**Following Up After Launch**

As an intern at DDC, I did not have the time to follow up on the websites I created, but it was important for me to ensure that steps had been taken to make website tracking easier. I worked with the web team to make sure that the new Prophase site had been registered with the online directories in order to show up in search results, and we made sure that the website could be easily tracked with the systems DDC had in place.

I was limited in the follow up that I could complete for this report because I no longer work as an intern at DDC. If I were there following up on the site now, I would pull analytics on the site to determine performance on a page-by-page basis. Many companies use Google Analytics because it is free and customizable—anything from unique visits to bounce rate (users who come to the site and immediately leave without clicking on a second page) can be tracked on a continuous basis. Companies can pull reports on a daily, weekly or monthly basis and can make adjustments based on the analytics. While I do not have the capability to pull specific analytics, I can look at the rankings in the search engine results—something that many of my current clients constantly worry about.

As of December 2010, there were over 225.2 million distinct websites. 22 Although paternity testing sites would be only a miniscule portion of this whole, one Google search is enough to locate over 2 million web pages dealing with the search term “paternity testing.” The main DDC website is currently (as of 01.04.11) listed second in the search results, just under the American Pregnancy Association, an informational website. In general, commercial websites rank lower than credible informational websites, so this ranking is about as good as possible. Just as an interesting side note, it cannot hurt that DDC is one of the two DNA testing facilities recommended by the American Pregnancy Association.

---

Using the more specific phrase “private paternity testing” will pull up over 245,000 results in a simple Google search. Prophase Genetics is currently (01.04.11) ranked second using the search term “private paternity test”—directly after DDC’s main website. More than five years after the launch of the new website, Prophase Genetics continues to do quite well.

In developing the website for Prophase Genetics, I learned invaluable skills (e.g. defining CSS and manipulating graphics) that proved helpful as I created the next few websites during my internship. More importantly, I learned quite a bit about audience consideration. At every turn, I had to reconsider the audience members and their possible circumstances in order to create a website that provided them with the necessary elements to fulfill their needs. I find that audience consideration is the single most important skill I developed during my internship because it translates into all other types of communication.
In the previous chapter, I detailed my rhetorical decisions behind the design of the Prophase Genetics website, but I deliberately avoided a discussion of how we targeted the audience. We used a number of different strategies to first identify our audience and then determine the information that our audience needed to make an informed decision about purchasing a DNA test. In addition, we used specific strategies to ensure that the information was accessible to all users and to build credibility once users found the site. In this final chapter, I provide a detailed description of how we first identified our audience and then made sure we were addressing user needs during the development of the Prophase website. I also discuss some additional methods to target an audience that we did not employ with the Prophase redesign due to time and budget constraints.

Analyzing an Audience
Audience consideration is one of the most important aspects of nearly every type of writing, and I would argue that audience is the single most important consideration for writers working in a marketing environment. This statement may seem obvious, but communications that show a blatant disregard for audience are produced daily. Countless others are produced with little understanding of audience need, whether because those who create the communications do not recognize the value in knowing their audience or do not have the time to conduct a thorough analysis. But understanding audience in the marketplace is vital if communicators are going to successfully convert sales because they have to know what information potential customers need in order to make the decision to purchase their product. The first step in targeting our audience was to figure out exactly who needed our product/service; we accomplished this through audience analysis.

As I was working in a small company like DDC, I found it difficult to collect information about individual users and therefore also difficult to really get an overall conception of our target
audience. I was in a position where it was not easy to collect information from clients simply because they did not want to discuss their need for our product, and this was made even more difficult due to privacy concerns (think HIPAA – though DNA analysis was not regulated at the time). To compound these obstacles, I did not have a budget for outside (external) testing. I had to use what knowledge I could glean from my co-workers and from the service line representatives actually in touch with the clients. It all started with a brainstorming session.

**Classification-Driven Analysis**

I mentioned in the previous chapter that I followed a process Karen Schriver terms a “classification-driven audience analysis,” (155)\(^8\), in order to ensure I was creating an effective marketing piece. I met with the web team, and we worked together to classify the Prophase audience based on personal and social demographics. This session was a free form discussion, and we all brought our own experiences to the table.

Prophase Genetics caters to a general audience interested in DNA testing, but our main targets were the individuals interested in private (in-home) paternity testing. This audience might include alleged fathers who want to prove/disprove paternity, mothers who are unsure of their child's paternity, and, in rarer cases, children who want to establish paternity. There is almost no end to the possibilities because there are so many different types of relationships in contemporary society. For example, a current girlfriend might want to try to prove that her boyfriend is not actually the father of his ex-girlfriend’s children. She might want to do this because she does not want him to have to pay child support. Financial motives and peace of mind are the two primary reasons driving people to prove/disprove paternity.

Often, individuals involved in a paternity case are not going to be in their normal state of mind and can be very angry or confused. The audiences we were targeting have historically been young and/or undereducated. They might be poor and not have access to the latest technology, so they may have little to no experience searching for information online. It is also likely that they have little or no understanding of the testing process and what the outcomes mean. The target audience for Prophase is more specific than that of DDC in general, so I found that it was essential to understand the contexts in which our audiences would come to the Prophase site.
In his book, *Designing Effective Websites*, Johndan Johnson-Eilola explains that the main user contexts to consider when developing a website are technical, physical, mental, and social and environmental contexts (21-32). I used this information to guide our web team’s discussions of audience contexts.

**Technical:** Understanding that a large portion of the target audience for Prophase Genetics would not be well-educated, we brainstormed as many technical considerations as possible. We came to the following conclusions:

- It made sense that many individuals would not have access to the latest technical equipment (i.e. computers and/or internet capability) and might be using public access computers.
- Potential clients might have different operating systems (PC or Mac) and different web browsers (including old and out-of-date browsers), and we needed to ensure that the websites could be easily accessed through any system.
- Individuals browsing the website would likely have different levels of experience, and we needed to ensure that the most inexperienced users could easily navigate the websites.
- Members of each target audience might be physically or visually impaired, and we needed to ensure the websites would be accessible to these individuals.

Based on these assumptions, we knew we had to make sure that the website was coded correctly and could be viewed in multiple browsers. One example of how we ensured accessibility would be how we used Optima (a Mac font) for the title of the company—it is in an image so that PC browsers will not have trouble with the font that is not standard for PCs. We also made sure to keep the images at a lower resolution (72 dpi) so that they would load quickly in even the older browsers.

To address the possibility that users might be physically or visually impaired, we made sure to be compliant with the Americans with Disabilities Act. We made sure that the navigation was actually coded in HTML—not contained in image files—so that screen readers could detect the

---

information. Additionally, we included alt tags to describe every image on the site. Including these tags also helped with search engine optimization because we included key words for the search engine spiders to pick up as they crawled the site.

**Physical:** After further brainstorming, we realized that the individuals browsing our websites would not be in the same physical location. We came to the following conclusions:

- Our audience might be viewing the websites in their own homes, at their own pace, but it is also likely that they would not want family members to know about their activities, so they might view the websites in a public place (e.g. work or public library).
- The amount of time spent looking through these websites would not be nearly the same as, for example, someone looking for information about a disease. Users would likely be in a hurry, so it was important for us to ensure the site was easy to navigate.

In order to ensure that users who might hurry through the site could still find the information they needed, we added a Frequently Asked Questions (FAQ) page that provided brief responses and linked back to other pages within the Prophase site. This way, if users wanted to learn more, they could find the related information with ease.

**Mental:** Assuming that most individuals interested in DNA testing, particularly in-home testing, would likely be in an agitated state of mind, the web team discussed different mental contexts we felt we needed to address. We came to the following conclusions:

- People looking at the Prophase site might be in a hurry because they do not want anyone surprising them while they are looking at possible in-home paternity testing, so we needed to make sure that the sales information was placed in a prominent position.
- Individuals are probably going to be upset, distressed, confused, or angry when they view the website because, in most cases, questions of paternity can cause mental stress.

Our response to the assumptions we made about the users’ potential state of mind was to ensure that the most important information was very visible throughout the site. We chose the top six most important sections of the site and made those our top navigation so users would see their options as soon as they hit the landing page (or through any subsequent page).
Social and Environmental: Recognizing an audience’s social and environmental context is as equally important as knowing and understanding an audience’s physical and mental contexts.

- Our audience might not be financially able to own a computer, meaning they are likely viewing the websites in a public place, and they might be relatively inexperienced when it comes to technology and searching the internet.
- Audience members might feel pressured by other family members to prove/disprove paternity or other family relationship (e.g. a parent might make their teenage son take a test to determine whether or not he is the biological father of a child).
- Individuals might be unsure of whether they actually want to find out the results.
- Anyone in this situation is going to be apprehensive about the repercussions of their desire to prove/disprove a relationship.

Based on the other assumptions we made and the changes we made to address potential pitfalls, we were in good shape to address social and environmental assumptions. For example, users who might not be able to own a computer could be using a public access computer—something we had considered when thinking about users who would not want anyone to know what they were searching for online. We made sure that the site was accessible in all browsers and the most important information was highlighted in a variety of ways throughout the site (including in the top navigation and on the FAQ page).

The limit to classification-driven analysis is its subjective nature. We all brought our own experiences and opinions to the table, and I would not be able to tell you that even one of us had purchased a DNA test, so we clearly had a limited perspective. This was a limit that I recognized, however, and I supplemented our initial discussion with time spent listening to customer calls with our service line representatives.

Feedback-Driven Analysis
After our initial classification of the audience, I spent a significant amount of time with our customer service representatives. I was able to actually listen in on a number of phone calls from potential customers who wanted to learn more or order testing. I will never forget the call from a soldier serving in Iraq who wanted information about in-utero paternity tests (which can be done with samples from the amniotic sac, but it is a dangerous procedure). This one phone call rocked
my perception of who might be interested in our services because he was calling to test the
paternity of the child his wife had conceived near the time he was deployed. I realized that this
might not have been the most common scenario but that we could address his need by making
sure that we provided the same information that we were already preparing for users in more
common situations. We might not have been able to cover everything in detail, but we were able
to provide enough information that potential clients would feel they received adequate answers
to their questions and hopefully call for services.

Though both classification- and feedback-driven analysis have inherent issues in that they cannot
cover every possible user nuance, using different models of analysis together helped us develop a
more complete picture of our target users. Also, this step of the process cost us nothing. But it
was more effective than had I simply tried to work out on my own whom I needed to target.

Personas
After I learned about our audience through our analyses, I needed to write content that they
would find useful. At the time, I wrote the content for a general audience based on our analyses.
I had not yet been introduced to personas, but I have now learned to write for personas and
would recommend it as the next logical step in the design process.

Personas were first promoted from a technology standpoint as an aid to ensure user-based design
of new software. Web developers were quick to pick up the practice, and a recent article notes
that teachers of technical communication are now recognizing the validity of the practice. The
author concisely explains why personas have caught on:
Real-world design teams use personas and scenarios because they
Condense, organize, and clarify findings from marketing and user research into a coherent vision
of users and their goals
Allow that vision to be communicated compellingly to everyone with a stake in making the
product a success

25 David Dayton. “New Media’s Personas and Scenarios.” In Engaging Audience: Writing in an Age of New
Literacies. Eds. M. Elizabeth Weiser, Brian M. Fehler, and Angela M. González. National Council of Teachers of
Articulate clearly all key assumptions affecting design so they can be validated through research and discussion (118-119)\textsuperscript{25}.

The idea behind creating a persona is that communicators can develop their content for those individuals, opening a conversation and building the relationship. We would not have had to create a persona for every single possible consumer of our product. We could have chosen the main consumers that we wanted to target and created personas for those. Doing so would likely have covered the rest of our audience to a large extent. For Prophase, the top three personas would be for mothers looking to establish paternity of their children, fathers looking to prove/disprove paternity, and parents of pregnant teenagers.

One good example of personas is available from the United States Department of Agriculture (USDA)\textsuperscript{26}. They developed personas for their website to ensure that the needs of all of their target audiences are addressed. They have provided this information to the public through the usability.gov website. I created the following persona for the Prophase website, based on their examples (see example on next page).

Sarah Leffers Persona

Sarah is thirty years old and works as a nurse in a mental health facility in Raleigh, NC. She graduated from the University of Cincinnati nursing program. Sarah has been married to her husband, Kevin, for four years, and they have one child together. During a short trial separation in their marriage, Sarah had a brief affair with another man, and she is not 100% sure whether Kevin is her son’s father.

Kevin has never questioned his paternity, but Sarah is worried about the potential he may not be her son’s father. What if her son needs a bone marrow transplant or an organ donation in the future? Sarah believes that she will have peace of mind if she just confirms her son’s paternity.

Sarah is computer-savvy and has previously conducted a number of internet searches to learn more about in-home paternity testing. She has used the public computers at the local library to look for information because she is not ready for Kevin to find out what she is doing.

<table>
<thead>
<tr>
<th>Customer Characteristic</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uses a public computer to keep some semblance of anonymity</td>
<td>Has limited time to use the computer, so needs to find information easily</td>
</tr>
<tr>
<td>Wants to be able to do a paternity test without involving anyone else</td>
<td>Needs to know the options for paternity testing and how samples are collected</td>
</tr>
<tr>
<td>Does not want to make phone calls to order the test because her husband reads the phone bill</td>
<td>Needs the option to order private paternity testing online</td>
</tr>
</tbody>
</table>

Once we had the personas complete, we could have used them to direct our communication. In this case, we would have written directly to Sarah Leffers and let her know what we could provide to her that would meet her needs and give her peace of mind. We would let her know that we offer private paternity testing, and we can test samples collected in a number of ways (buccal swabs or shed hair would be easiest) that would ensure privacy. We would let her know that the private paternity testing is just that—private—and no third-party needs to be involved to collect samples. We would also make the information easily accessible so that she does not waste time trying to find the information she needs (this was discussed heavily in Chapter 3).

This example is just one of several that might be applicable to the Prophase website. We would have been restricted by our limited assessment of our target audience. If we had more evidence of specifically who comprised the target audience, we would have been able to develop one
persona for each of the main types of cases in the target audience, therefore, ensuring we were more broad in our approach to content.

Writing and designing for an audience based on assumptions made by the web team, no matter how in-depth the process is, would not be as effective as getting our audience involved in the design and writing process.

**Involving an Audience**
Usability testing is a process we learned in detail while in the MTSC program, and this background has served me well as a web editor. We can perform usability testing at three main junctures during the development of a website: before we begin, once we have the wireframes (paper prototypes), and near completion before launch. The testing that communicators need to conduct will depend on where they are in the design process.

Before I began the redesign of the website, it was useful to know what worked and what did not work on the existing site. We were completely replacing the existing Prophase site and, therefore, did not do usability testing prior to beginning our process. We started with our usability testing once we had completed the initial audience analysis and I was working on the new sitemap. I wanted to know how our users would most easily find the information, so I conducted several fundamental user tests.

**Card Sort**
A card sort is a very basic exercise that requires communicators to reach out to potential users and have them literally sort cards into categories that make sense to them. I did this inexpensively with note cards, but the option to do it electronically exists with a number of different software programs.

I wrote down the different types of information that I wanted to include on the site—one piece of info on each card—and asked participants to sort through the cards, arranging cards into categories that made sense to them and then labeling those categories. I found participants by going to a local restaurant during the last part of the lunch hour. I made sure that it was okay with the manager and that I would not be causing delays in service. I just set up at a table near the front of the restaurant. I caught people as they walked in and offered to buy their lunch if
they participated—fairly cheap because I was only looking for 15 participants\(^\text{27}\), and we were at an inexpensive restaurant.

The people who participated in this exercise were not necessarily in the target audience, but they did provide a fresh perspective and added value to our own analysis. I made sure to approach people of a wide range of ages and ethnic backgrounds (though these characterizations were based on my best guess; I did not require any information from the participants). This exercise was useful to see what information users thought belonged together. We were already fairly accurate in our conceptual design, but we did promote the access point for the three-way testing process, making this topic its own area after the card sort. This content had previously been included as a sub-topic on a page, but we learned through the card sort that it was important information to highlight.

**Task-Based Usability Testing**

The second time I conducted usability testing was after we had the site nearly ready for launch; I wanted to make sure that users were indeed able to find the information that they needed. I created a brief task-based usability test and sat down with users to see if they were able to complete the tasks and locate information. I also watched how they were completing the tasks—I wanted to know if they were following the paths we had set up or trying something we had not considered.

For this exercise, I chose to enlist the help of the service-line representatives because I thought they were a viable test group and because I had time and budget constraints. The service-line representatives deal with DDC clients all the time and are intimately familiar with their needs and the DDC testing process. Plus, they all use the website to conduct business.

I sat down with each representative individually and administered the test that I had created. I asked them to perform specific tasks, such as locate the information about twin zygosity testing. I also asked them to order a paternity test, so that I could make sure the ordering process was intuitive and easy to follow.

We had done our due diligence, and this task-based testing validated that we had created a site that provided the necessary information and was easy to use for our target audience. Success!

I realize that the shortcoming of my usability testing was not reaching out to our actual audience. I avoided this for two reasons: 1) paternity testing is a sensitive issue, and I did not want to cause further stress; and 2) we were constrained by time and budget. If I were to do this over again, I would try to get feedback from users in the Prophase target audience.

**Audience Feedback**

One way to get feedback directly from our actual audience would have been to include a survey on the website post-launch. We did not use this method to gain input from our audience simply because we were very focused on the end goal of converting sales. I was also not familiar with this practice and did not yet understand the power of the feedback. We could have incorporated it in a number of different ways—including a static link on the home page that displays for every visitor or a window that pops up once a user has clicked through to any page off the home page.

Feedback from this survey would have been directly from our target audience because no one would see it without going to our site. This survey could have further validated our design and content, or it might have helped us rethink our design if multiple users expressed difficulty with one or more tasks. This is a very cost-effective method of asking for feedback; it can be done with free software, so we would have been able to add it with the help of our programmer.

**Analytics**

Another way to get feedback from our target audience – albeit indirectly – was to track analytics for the site. Now communicators can do this freely using a tool like Google Analytics. This is not a fool-proof method because ad blocking software might negatively affect the results because it will prevent some users from being tracked, but we at least covered the basics. We tracked unique visitors to the site, how long they were spending on one page and which of our site’s pages were the most well-trafficked. Google Analytics can also track sales and conversions, so we could see which pages were effectively pushing users to the online ordering page. Using this information, we could make changes to the site to improve performance (and we could then track whether those changes improve traffic or have a negative impact).
Targeting an audience simply by design and navigation is not enough. We also had to make sure our content was developed specifically for our audience. Identifying the audience and acknowledging their contexts are the actions that helped me set the parameters that directed the design of the website. The usability testing that I conducted was what helped me fine tune the design process and ensure that the audience would be able to access the information necessary to make an informed decision. This work led me through the design process that I described in Chapter 3 and guided the development of the sitemap, global navigation, and finally the content.

Building Credibility with an Audience
A company’s website is a great opportunity to begin building the relationship with their clients, especially now as more and more people become comfortable interacting online through social media. But knowing our audience was not enough to build a solid relationship; our audience needed to trust us. We built that trust through a combination of rhetorical appeals made manifest by both the content and design of the site. Aristotle described three canonical artistic proofs: ethos, pathos and logos. These artistic proofs (appeals) are created in the mind of an audience and are used to persuade the audience to feel some truth or to act on some truth.28 What was good for Aristotle centuries ago is good for web designers today, and the Prophase website used all three appeals to persuade potential clients to purchase a paternity or other family relationship test.

Ethos
In traditional rhetorical theory, ethos refers to the character of the speaker. When applied to marketplace rhetoric, the speaker has been replaced by a company that is persuading their audience. Users today are savvy enough to recognize that they need to be careful when purchasing items online, so it becomes vital for a website to illustrate the credibility of the company it represents.

While I was writing the content, I wanted to make sure that I was building credibility with my audience by giving them assurance that they were purchasing a product from a reliable company. The fact that the DNA testing websites were relatively new and extremely diverse meant that

there was little chance that any company would have initial credibility. Instead, the websites had to work to create ethos in the audience’s mind. Hunt explains that “technical communicators might make an appeal based on *ethos* by using language that is clear, simple, and concise and that, therefore, appears understandable and credible” (520). Marketing research suggests making a similar effort.

Previous research has shown that words used frequently in everyday language, short words, and words with fewer syllables are easier for readers to comprehend than infrequently used or longer words (Isakson and Spyridakis 539). The concept of “simple is better” is not new—guidelines have long suggested that advertisements that keep messages simple are better understood by consumers (Lowery 187). At least one study has also shown that syntactic complexity influences consumers’ willingness to “process an ad,” not necessarily their ability to do so (Lowery 202). While our commercial website was much more than a simple printed advertisement, it was still imperative to write content that would be easy enough for the larger audience to understand. This principle became even more important when considering the general DDC audience of young undereducated individuals.

Throughout the pages of the Prophase website, I used simple terms in place of complex words, and I explained scientific terms by including a parenthetical description or definition after using the term. For example, DNA samples are collected using buccal swabs, so each time I used the term “buccal,” I followed it with “(cheek).” I chose to include the scientific term because I wanted to show that the company was not only scientifically literate, but that it also understood the science behind the testing. I found that it can become difficult to explain the scientific process behind DNA testing with easy-to-understand terminology, but it was important to do so considering the audience.

I did not stop with simplifying the content to build ethos. I also included content intended to demonstrate subject matter expertise.

---


- **Understanding DNA**: This page provided information about deoxyribonucleic acid (DNA) and how it can be used to establish paternity. Users might know that you can do a “DNA test,” but they might not know what it entails or what it even means. Including this information showed that we knew our subject and were able to provide very fact-based information to users.

- **Understanding Paternity Testing**: This page provided information about a paternity test and the potential results. It described the potential genetic relationships between a mother, father and child. The content here did not go into great detail about our testing – but it was fact-based information to give the reader a sense that we were not being biased.

- **Private versus Legal Testing**: This page contained a description of the differences between the two types of testing. This information was included not only to show credibility, but also to protect ourselves from liability, if a user misunderstood the product we were offering.

I wrote quite a bit of content to show that Prophase was a very reliable and trustworthy company, but I also wrote content intended to engage users through the other two artistic appeals: pathos and logos.

**Pathos**

Perhaps the most important appeal for advertisers to employ is pathos, creating emotional involvement for the audience. Emotional appeals are extensively variable, so there are a number of ways to create pathos in an audience, including the use of imagery, descriptions, personal and audience-related examples, rhetorical questions, or even hypothetical examples. Due to the nature of the obvious underlying reasons for looking for paternity testing online, potential clients are already emotionally involved before they access the Prophase website, so the website simply extends an offer of help to get them through their time of need.

One powerful way to engage an audience emotionally is to use the power of stories.\(^1\) I did not use this specific strategy in the Prophase website, but I did use personal stories to engage potential clients on the website for another online company, DNA Roots (http://www.dna-  

The stories on this website each discuss a different situation in which someone might want to have DNA tests performed, and the real intent is to get potential clients to want to learn more about tests for their specific circumstances.

The Prophase website did include several hypothetical examples, specifically on the page describing DNA testing. These examples helped to further connect with audience members because each example served to create a positive tone and to alleviate some sense of stress. While not a personal client story, these hypothetical examples still gave the impression that others have been in the same situation, so people did not feel as though they were alone. We showed the users that we understood what they were going through at this rough point in time.

The nature of an emotional appeal is a sensitive subject because writers have to be careful not to prey too much on a reader’s emotions. The appeal should be used to more readily connect with the audience, but it cannot be abused because if not carefully censored, the emotional response may not be what the writer intended.

**Logos**

The Prophase website was created to promote a sense of credibility not only through the content provided, but also through the architecture of the site. The navigation was simple and repetitive, so the majority of the audience would have an easy time finding the pages they needed to view. Potential clients would not feel as though the company was trying to hide anything if the information was readily available. This strategy also facilitated the logical appeal because, as Hunt points out, “technical communicators frequently make appeals based on *logos* by ensuring that there is a logical structure that the users can follow so that they don’t get ‘lost in hyperspace’” (520). In this case, the structure of the Prophase website created an uncomplicated path through the site, allowing potential clients to move both forward and backward with ease.

Following along with the navigation, the pages of the site—and the way in which we ushered users through those pages—worked together to create a series of claims that lead to a logical conclusion. We first provide a description of the paternity test, expand to the history of DNA to show that it is a credible test, include information specifically designed to tout the DDC process, and finally send users through to the contact page. By the time users hit the contact page, they
should have been provided with enough information to reach the logical conclusion that they should contact Prophase for their paternity test.

The appeal to reason did not rest solely on the structure of the Prophase website, but included other subtle strategies employed throughout the development of the site. The logical appeal in marketplace rhetoric is different than the traditional appeal, where usually an argument is substantiated with evidence. When considering commercial websites, we can see that the logical appeal relies more on the information provided than on the company’s ability to support that information.

The Prophase website provided an enormous amount of information, certainly more than anyone simply interested in an in-home paternity test would need. There were a number of different pages that provided information about DNA, including an explanation of deoxyribonucleic acid, the history of DNA discovery and use, and what it means to test paternity. There were also three separate pages detailing the three-step process that Prophase uses to test family relationship, including collecting the sample, analyzing the sample, and interpreting the results. The information provided was not substantiated with citations of documented proof, or even in-text references, but it still served to appeal to a potential client’s sense of objectivity. I took this appeal even further by including statistics on a number of pages discussing the testing process and the results. Statistics masquerade as solid scientific proof, making potential clients all the more apt to believe the information provided.

Logos may well be the weakest of the three appeals in the Prophase website, but it is still an important one to consider. People have a tendency to believe what they read online. I believe individuals carry some responsibility for their actions after reading marketing materials, but I also believe that companies exploit users’ willingness to accept the information provided in those materials. In advertising, the appeal to logic may hold the most potential for being abused because, while users may not be affected by pathos and may overlook ethos, they also may not take the time to verify the information provided.
When I was developing the content for the Prophase site and incorporating the three rhetorical appeals, I was not just concerned that potential clients understood what we could offer. I also understood I needed to ensure they received the intended message.

**Meeting Our Responsibility to Our Audience**

I would be remiss if I were to discuss targeting an audience without then discussing a writer’s ethical responsibility to their audience. Because our work holds the potential for negative impact if not tempered by our own sense of social responsibility, technical communicators are obligated to consider the needs of all stakeholders. At DDC, my primary responsibility was to the company, but I still had a responsibility to our audience to make sure that any content I wrote was ethical. In order to fulfill this responsibility, I had to learn the science behind paternity testing in order to talk about it in an accurate and ethical way. I was not able to stop after learning the basic knowledge that I wanted to share with users; I had to learn the science in-depth enough to write the basic explanation that would be accessible to a general audience comprised of users without knowledge of genetics or biological testing—and to those who did understand the science as well.

For example, in the main marketing piece, the tri-fold brochure, DDC guarantees at least 99.99% probability of paternity for inclusions or 100% certainty for exclusions for a standard paternity test. The lab cannot guarantee a higher probability for inclusions because they do not test more than 16 loci, making it impossible to be 100% sure. Our clients do not necessarily know the difference between 99.99% and 100% certainty, especially when we are talking about DNA loci and testing markers, so it is our responsibility to be as accurate as possible, explaining that some cases might need additional testing. This strategy would also cover company liability if there happened to be a rare case where standard paternity testing included the tested man as the father, but further testing proved he was not the biological father.

As with technical communicators who produce product documentation and who write hazard warnings, technical communicators working in marketing have an obligation to protect the consumer (in this case, DDC clients) from personal injury that can be caused by misinterpreting promotional materials or misunderstanding the information we provide. It is our responsibility as effective writers to understand and apply the regulations that govern our work. We should know
when it is appropriate to apply certain advertising practices, and we should know when to apply simple design principles to ensure the information we provide is as accurate as possible and can be interpreted correctly by the majority of readers. We also need to make sure we do not provide a means for another individual to take unfair advantage of certain situations.

One significant example of how DDC’s products might be abused is the use of in-home tests. I described in-home DNA testing in great detail in the first chapter. In the worst case scenario of potential abuse, people can fake paternity test results. For example, an alleged father can collect samples from a child he knows is not his and send in that sample to be tested against his own DNA. If the mother is not aware of the possible misuse of paternity testing or cannot afford to go to court, she might be compelled to believe the results from an in-home test because she may find the laboratory test is more credible than her own suspicions. My responsibility to the company keeps me from overtly saying that these products may be misused because that statement might encourage potential abusers to use the tests inappropriately. My responsibility to clients is to provide as much information as possible about the test in order to help them make informed decisions. It is because of this responsibility that the Prophase site prominently provides information about the differences between in-home and legal paternity testing.
Conclusion

There are a number of ways that writers and web designers can connect with their audience. If we spend the time at the beginning of the project to learn about our audience and to learn what they need, we will develop a better product that adequately meets their needs. We will enjoy a better return on investment because we will connect with the users who are more likely to buy our company’s products or services. Identifying our audience is not just important for websites or other marketing collateral; this need to know our audience is pervasive and necessary in any type of communication.

The best communication is not about what we need or want; it’s about what our audience needs. We have to be willing to do the work to learn about our audience members—their background, their access to technology, and their needs in relation to our product. We need to know what kinds of research and background work to undertake to discover these things about our audience. And we need to recognize appropriate times to implement solutions for audience need and when to conduct usability testing to ensure we are creating something that is accessible, persuasive, understandable and useful to our target audience. There are a number of strategies—some discussed in this report—that can help in this endeavor.

We won’t always hit the mark with every communication, but if we do our work up front to help us understand our audience, we will hit the mark much more often by producing communications that meet the needs of a large segment of our audience. Understanding our audience and meeting our responsibility to its members ensures that we will create more effective and ethical communications.
Appendix 1. Brief descriptions of types of family relationship DNA tests

These test descriptions are from the main DDC website: http://www.dnacenter.com

**Maternity Test**

DNA test to determine whether a woman could be the biological mother of a child. This test is similar to a paternity test, but it compares a child’s DNA pattern with that of the alleged mother to determine how likely it is that the child has inherited the DNA from the alleged mother. Maternity test results may be used in the following circumstances:

- To confirm that an adoptee has been reunited with his/her birth mother
- To prove biological relationships in an immigration case
- To confirm that an embryo conceived through in vitro fertilization was implanted into the correct mother
- To resolve situations in which mothers or hospital staff suspect that a baby mix-up has occurred in the nursery

In a maternity test, the child, alleged mother, and biological father are tested. The father’s participation in the maternity test helps to exclude half of the child’s DNA, leaving the rest for comparison with the alleged mother. If the father is not available, the test can still be run to include or exclude the alleged mother.

**Prenatal Test**

Clients often want to know the paternity relationship even before the child is born, and DDC can perform a test on prenatal samples in such cases. The prenatal test is more expensive than other tests and does require that the procedure is performed by an OB-GYN.

Some mothers prefer to test umbilical cord blood taken at birth because it is less invasive and less expensive.

**Siblingship Test**

DNA test conducted to determine if two children share one or both parents (i.e. whether they are full or half siblings). This test is an indirect way to determine family relationships when an alleged father is not available for a paternity test. Results of a siblingship test may be used as proof in Social Security benefit and other inheritance claims.

There are two common scenarios for individuals wanting a siblingship test:

- Sibling 1 and Sibling 2 do not share the same mother and they want to find out if they share the same biological father—in this situation, a half siblingship test is performed.
- Sibling 1 and Sibling 2 share the same biological mother but are unsure if they share the same biological father—in this situation, a full siblingship test is performed.
In this test, DNA profiles from two siblings are compared to see how much of their DNA could have come from a common father. Participation of the mother(s) is encouraged to help exclude the mother’s contribution to the children’s DNA. Siblingship tests require more analysis than other family relationship tests.

**Twin Zygosity Test**

DNA test that definitively shows whether twins are identical or fraternal. When twins are born, the physician usually is able to tell whether twins are identical or fraternal by examining the placenta. Identical twins usually share a placenta, while fraternal twins are usually in two different placentas.

However, sometimes records can be lost, the placentas might have been discarded or damaged before twin zygosity was determined, or doubt may arise because of the twins’ physical characteristics. In such cases, only a DNA test will be able to reveal the truth. A twin zygosity test compares the twins’ DNA profiles to see whether they match—an exact match proves that the twins are identical.

The results of a twin zygosity test may be used to satisfy personal curiosity as well as to help solve health problems for the twins later down the road. For example, in the event that a twin needs an organ or tissue transplant donor, the identical twin is a perfect choice.

**Grandparentage Test**

DNA test to determine whether or not a couple could be the biological grandparents of a child. This test can be used as an indirect way to determine family relationships when an alleged father is not available for a paternity test.

In this test, a child’s DNA profile is compared with the DNA profiles of the alleged father’s biological parents. Since a child inherits half of his/her DNA from the mother (maternal side) and half from the father (paternal side), the paternal half should match DNA passed down from the alleged grandparents. The mother’s participation is often encouraged to expedite analysis; motherless grandparentage tests take longer to complete because of the extended analysis required.

Grandparentage DNA test results may be used as proof in Social Security benefit and other inheritance claims as well as in some immigration cases.

**YSTR Paternal Ancestry Test**

DNA test to confirm relationships between long-lost relatives and paternal ancestors. This ancestry DNA test is also often used to provide additional evidence in difficult paternity cases in which the alleged father is not available for testing—indirectly, it can tell whether or not a child is related to the alleged father's brothers and other male relatives who share a common paternal line.
This genealogy DNA test is based on the fact that the Y chromosome is passed from father to son relatively unchanged through many generations. The illustration to the right shows a typical inheritance pattern for the Y chromosome. Because the Y chromosome follows the same father-to-son pattern much like surnames in Western culture, the test has also been referred to as a "Surname Test."

Although the Y chromosome is only found in males, women can also indirectly participate in a Y-STR DNA test if they are interested in determining their paternal ancestry. They would need to ask a biological male relative, such as a father, brother, paternal uncle, or paternal grandfather to contribute a sample for comparison testing with her potential paternal relative or ancestor.

In a Y-STR DNA test, specific locations on the Y chromosome are examined to generate a Y-STR profile for each male tested. Males who are related through their fathers will tend to have the same or similar Y-STR profiles, and males who are not related will likely have different Y-STR profiles.

In a paternity situation where the alleged father is missing, Y-STR analysis cannot distinguish a specific relationship between males who belong to the same paternal line. However, it is useful for excluding males from an alleged biological relationship. For example, if a male child and his alleged uncle (alleged father’s full brother) are tested, their Y-STR profiles must match. If they do not, then the alleged uncle is excluded (not considered a biological uncle) and the alleged father is probably not the biological father.

**mtDNA Maternal Ancestry Test**

DNA test to confirm relationships between long-lost relatives and possible ancestors through the maternal/female line. It can also provide additional information for situations where maternity is in question, but the mother is unavailable for testing—although maternity itself can't be determined, we can determine the child's relationship to a possible maternal relative.

The process of mtDNA testing is simple. Both men and women have mitochondrial DNA (mtDNA); however, only women can pass their mtDNA on to their children. In an ancestry DNA test, mtDNA sequences from two individuals are compared to see if they share certain regions of the DNA that indicate they come from the same maternal line. The illustration to the right shows a typical inheritance pattern for mtDNA.

The ancestry DNA test compares a person’s mtDNA sequence with the Cambridge Sequence, a reference sequence of mtDNA. While most of the mtDNA sequence does not change from generation to generation, there is a variable region in the mtDNA that does change, with a mutation rate that has been determined by scientists.
When variations are found between the tested person’s sequence and the reference sequence, these indicate how the human race branched off over the years. Through many generations, a family’s sequence variations stay intact and are passed down through maternal lines.

For example, if a female in Generation One has a specific mtDNA sequence, then all of her descendants (male or female) with a direct maternal connection to her would also have similar markers through many generations, as shown in the above illustration. This means that her sons and daughters would have the same mtDNA sequence, but only her daughter would pass this sequence on.

The mtDNA test may be useful in both Ancestry and Genealogy DNA Testing.

**DNA Banking**

DNA banking provides organizations and private individuals a way to store their DNA in a safe and highly secured environment. The banked DNA samples may be used for future DNA tests in necessary cases, such as protecting against illegitimate claims on a person’s estate, providing a standard comparison and identification of individuals in high-risk occupations (e.g., military, law enforcement, firefighters, or overseas contractors), assisting with identification of missing persons or giving clues about the trail of a missing loved one, and identifying inherited traits (e.g., genetic disease and other inherited characteristics).

**DNA Profiling**

DNA profiling takes the banking service one step further and actually runs the tests to establish a person’s genetic profile – a unique combination of 16 markers found in their DNA that serves as a permanent genetic ID. Many organizations and private individuals choose to procure records of their DNA profiles for many of the same reasons that they would want to bank DNA: in case of future paternity tests in case of claims on an individuals’ estate, to provide a standard for comparison and identification for people in high-risk occupations, and to assist with the identification of missing persons. Some parents are now getting genetic profiles for their children, in addition to the traditional safety measures, such as taking fingerprints.

**Forensic DNA Testing**

By now, anyone not living under a rock has at least heard of CSI: or Law & Order, or the myriad of other shows portraying the value of DNA testing in criminal cases.

From identifying perpetrators through a "cold hit" on the national convicted offender database, CODIS (Combined DNA Index System), to exonerating wrongfully convicted individuals, DNA testing has increasingly become an indispensable tool to help ensure justice.

There are a number of presumptive and confirmatory tests that detect the presence of blood, semen, and other biological materials left behind at a crime scene. When sources of human DNA are found, laboratory scientists will extract the DNA for testing and analysis. Depending on the
sample type (blood, hair, bone, vaginal swab, etc.) and condition, one or more of the following testing systems may be used:

- STR "Short Tandem Repeat" typing using the 13 core CODIS markers. This is the most commonly used and most powerful of the testing systems. The profile generated is unique to each individual and is regularly used for all types of biological samples. Additional markers for extended testing are available.

- Y-chromosome STR typing of 17 markers that are male specific, paternally inherited, and therefore not unique to an individual. Y-STR testing is often used in samples containing a mixture of male and female DNA where the two cannot be separated, as in sexual assault cases.

- Mitochondrial DNA sequence analysis is often used in cases where the sample contains degraded DNA or lacks nuclear DNA, such as a hair shaft without the root, or other difficult samples such as bone or teeth. This test system is maternally inherited and therefore is not unique to an individual.

When DNA evidence has been analyzed, the DNA profile can be used to link the evidence to a suspect, or to link different crimes together, such as when DNA from a single perpetrator is found at two different crime scenes.

DNA evidence can also be used to prove the innocence of a falsely accused or wrongly convicted person, as well as identify the bodies of victims of violent crimes, accidents, or natural disasters. The power of DNA technology in identifying individuals and establishing biological relationships makes its applications limitless.

**Veterinary DNA Testing**

About 4 out of every 10 American households have one or more dogs, and 3 in 10 have at least one cat. This close relationship between humans and domesticated animals has provided new applications of DNA testing for animals.

There are a number of tests for several different species of animals, including canine, feline, avian, and equine. The tests available include:

- Parentage testing (canine)
- Inherited traits testing (canine)
- Disease testing (canine, feline)
- DNA sexing (avian)
- DNA banking (canine, feline, equine)
- DNA profiling (canine)
Appendix 2. Graphical Representation of Time Spent During Internship

Percent time spent on projects

- Commercial Websites
- DDC Forensics Website
- Forms Project
- Promotional Material
- Editing
- Other activities
## Appendix 3. Sample from Forms Catalogue

<table>
<thead>
<tr>
<th>Doc Number</th>
<th>Revision Date</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSC-5000</td>
<td></td>
<td>DNA Parentage Testing Fee Schedule – Family Relatedness</td>
</tr>
<tr>
<td>FSC-5001</td>
<td></td>
<td>DNA Parentage Testing Fee Schedule – Attorney</td>
</tr>
<tr>
<td>FSC-5002</td>
<td></td>
<td>DNA Parentage Testing Fee Schedule – Barrister</td>
</tr>
<tr>
<td>FSC-5003</td>
<td></td>
<td>DNA Parentage Testing Fee Schedule – Adoption</td>
</tr>
<tr>
<td>FSC-5004</td>
<td></td>
<td>DNA Banking Fee Schedule</td>
</tr>
<tr>
<td>PIF-5000</td>
<td></td>
<td>Patient Information – Paternity and Family Relatedness</td>
</tr>
<tr>
<td>PIF-5001</td>
<td></td>
<td>Patient Information – Low Comp</td>
</tr>
<tr>
<td>PIF-5002</td>
<td></td>
<td>Patient Information – Med Comp</td>
</tr>
<tr>
<td>PIF-5003</td>
<td></td>
<td>Patient Information – High Comp</td>
</tr>
<tr>
<td>PIF-5004</td>
<td></td>
<td>Patient Information – High Comp FL</td>
</tr>
<tr>
<td>PIF-5005</td>
<td></td>
<td>Patient Information - Reg</td>
</tr>
<tr>
<td>PIF-5006</td>
<td></td>
<td>DNA Parentage Test Set-Up Instructions</td>
</tr>
<tr>
<td>PIF-5007</td>
<td></td>
<td>Patient Information – Legal</td>
</tr>
<tr>
<td>PIF-5008</td>
<td></td>
<td>DNA Parentage Test Set-Up Instructions – Legal</td>
</tr>
<tr>
<td>PIF-5009</td>
<td></td>
<td>Legal Services</td>
</tr>
<tr>
<td>PIF-5010</td>
<td></td>
<td>Patient Information – Banking</td>
</tr>
<tr>
<td>PIF-5011</td>
<td></td>
<td>DNA Banking Order Form</td>
</tr>
<tr>
<td>PIF-5012</td>
<td></td>
<td>Explanation of Results</td>
</tr>
<tr>
<td>SUR-5000</td>
<td></td>
<td>“Please help us to help you” Survey</td>
</tr>
</tbody>
</table>
Appendix 4. Client Identification and Consent Form

Client Identification and Consent Form

Chain of Custody Documentation

A copy of this form must be completed for each patient donating a specimen.

Section I: Patient Information to be Completed by Patient or Patient’s Legal Guardian

Full name will appear on report:
First ___________________________ Middle ___________________________ Last ___________________________

Patient’s Full Legal Name: ____________________________________________

Date of Birth: _____/_____/_____
Social Security Number: ____________________________________________
Case Reference #: ____________________________

Mail Results To: (recipient must be 18 years of age or older) If Mailing Copy of Results To: _______ Attorney _______ Agency

Name: ____________________________________________ Name: ____________________________________________
Address: ____________________________________________ Address: ____________________________________________
C/S/Zip: ____________________________ C/S/Zip: ____________________________
Phone: (______) _______ Phone: (______) _______

I, the undersigned, attest that the information appearing on this form is correct and true to the best of my knowledge.
I, the undersigned, certify that I have read and I agree to the Terms and Conditions printed on the back of this form.

Signature of Patient (or Legal Guardian) ____________________________ Date: ____________________________
Print Name of Legal Guardian ____________________________

Legal guardian’s signature is required if the patient is under 18 years of age.

Section II: Information to be Completed by Collector

Specimen From: ____________
Mother _______ Child (under 13 yr old) _______ Child (13-18 yr old) _______ Alleged Father _______ Other: _______

Patient History:

Yes ______ No ______
Blood transfusion in the last 3 months? ______
Bone marrow transplant? ______
Previous parentage test? ______
When? ____________________________
Which Lab? ____________________________

Patient Identification:

ID#: ____________________________________________
Social Security Card _______ Birth Certificate _______ Driver’s License _______ State ID _______ Other: _______

Right Thumbprint: ____________________________

Collection Facility

Name: ____________________________________________
Address: ____________________________________________
C/S/Zip: ____________________________________________
Phone: ____________________________________________

I hereby affirm that I have properly identified this patient. I have collected the specimen and labeled the container and package properly in the presence of the patient. The specimen is clearly labeled with the patient’s name, date of birth, and date of collection. The specimen has not been tampered with and was never left unattended. I have packaged the specimen securely for shipment.

Signature of Collector ____________________________

Collection Date & Time: ____________________________

Please be sure the form is completed. Incomplete forms may jeopardize Chain of Custody and delay testing.

Warning: This form and the collection kit are the property of DNA DIAGNOSTICS CENTER. Use of any DNA DIAGNOSTICS CENTER materials and camera to serve laboratories that are not DNA DIAGNOSTICS CENTER is strictly prohibited. Violators will be subject to legal prosecution.
Appendix 5. Single-panel Brochures

Standard Paternity Testing Brochure

DNA Paternity Testing Services
DNA Diagnostics Center (DDC) offers private DNA paternity testing services for individuals seeking definitive answers.

Discover the Truth
DNA paternity testing is the most accurate, powerful test available for determining parentage. We inherit our DNA from our biological parents; therefore, DNA is set at conception and does not change. We can test samples from persons of any age using a painless cheek swab and perform DNA analysis to quickly determine relationships.

Setting up an Appointment
Call 1-800-DNA-CENTER (362-2368) seven days a week to speak with our caring, professional staff. Once we determine your needs, we will schedule a DNA collection appointment at your convenience, often on the same day. No doctor’s or court order is required with DDC. You can initiate a test and keep the matter completely confidential. Se habla Español: 1-800-618-8433.

Testing Cost
Our mission is to make quality DNA testing affordable and available to all. Testing can begin with a small deposit and easy payment plans are available. We accept most forms of payment.

About DDC
DDC is the world’s largest private DNA paternity testing laboratory. Founded in 1994, our laboratory performs 3 out of 4 private paternity tests in the U.S., and we provide a wide range of DNA testing services in over 168 countries worldwide. At DDC, we offer:

- Dual Process™ testing for the highest accuracy
- Legally admissible test results
- AABB, CAP, CLIA, & NYSDOH accredited testing
- Completely confidential services
DNA Banking and Profiling Services

DNA Diagnostics Center (DDC) offers DNA banking and profiling services for private individuals and for organizations with employees in high-risk professions.

Preparing for the Future

A DNA test can be performed on stored DNA to provide crucial information in unexpected situations:
- Someone contests a will or claims inheritance rights.
- Identification becomes necessary for a man or woman in a high-risk profession: the military, law enforcement, firefighters, and overseas contractors.
- Clues are needed in finding the trail of a missing loved one.
- A medical genetic history becomes essential in the treatment and/or prevention of genetic diseases. You can also choose to get a record of your DNA profile now, so that it is ready whenever needed.

Setting up an Appointment

Call 1-800-344-0632 to speak with one of our DNA Banking and Profiling specialists. We will take some basic information and schedule a convenient DNA collection appointment. You may also order our banking and profiling service online through http://www.dnacenter.com.

Testing Cost

Our mission is to make quality DNA testing available to all at an affordable price. The total cost for DNA banking amounts to less than ten dollars per year.

About DDC

DDC is the world's largest private DNA testing laboratory. Incorporated in 1994, our laboratory tests 3 out of 4 private paternity cases in the U.S., and we have provided a wide range of DNA testing services in over 168 countries worldwide. At DDC, we offer:
- DNA banking in a highly secured, environmentally controlled facility
- Legally admissible profile report and banking certificate
- AABB, CAP, CLIA, NYSDOH & ISO-certified laboratory
- Completely confidential services
Feline DNA Testing for PKD

Polycystic Kidney Disease (PKD) is an inherited autosomal dominant disorder that is characterized by the formation of cysts on the kidneys, leading to eventual renal failure and possible death. The genetic potential for developing PKD and passing it on to future generations can be determined with a convenient DNA test.

Samples Required

You can easily collect feline DNA samples using buccal (cheek) swabs. We provide detailed instructions online and with the free DNA Sample Collection Kit that we send you.

Technology

We use PCR (Polymerase Chain Reaction) to determine your cat’s genotype for PKD. DNA tests are done using state-of-the-art capillary electrophoresis and high-capacity genetic analyzers for fast, accurate testing. All data is reviewed thoroughly by an experienced PhD geneticist before the final result is released.

Results

We will provide you a detailed report showing your cat’s genotype for PKD (N/N, N/P Heterozygote, or P/P). The table below shows the expected probability that the offspring will inherit the PKD mutation based on the parents’ genotypes.

<table>
<thead>
<tr>
<th>Parents Genotype</th>
<th>N/N</th>
<th>N/P</th>
<th>P/P</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/N</td>
<td>100% N/N</td>
<td>50% N/P</td>
<td>50% N/P</td>
</tr>
<tr>
<td>N/P</td>
<td>50% N/N</td>
<td>50% N/P</td>
<td>50% N/P</td>
</tr>
<tr>
<td>P/P</td>
<td>25% N/P</td>
<td>25% N/P</td>
<td>100% N/P</td>
</tr>
</tbody>
</table>

Legend:
- N = Normal Allele
- P = PKD Mutation
- N/N = 2 Normal copies of gene
- N/P = 1 Normal copy of gene & 1 copy of PKD Mutation
- P/P = 2 copies of PKD Mutation

(Please note: This table is a tool for predicting probability of inheritance. Tested felines exhibiting the P/P genotype will be rare, because most do not survive to term.)

About DDC Veterinary

DDC Veterinary is a division of DNA Diagnostics Center (DDC), the world’s largest private DNA testing laboratory. DDC Veterinary provides veterinarians, breeders, and animal lovers high quality DNA testing services for animals. Our experienced scientists use the most advanced technologies to bring solutions to DDC clients, helping them to better manage their breeding and animal health programs through DNA testing.
**Appendix 6. Sample Information Sheet**

<table>
<thead>
<tr>
<th>What is paternity testing?</th>
<th>A paternity test compares a child’s DNA pattern with that of the alleged (possible) father to check for evidence of genetic inheritance.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who is tested?</td>
<td>In a standard paternity test, the tested parties include one child, the alleged father, and the mother (called a trio).</td>
</tr>
<tr>
<td></td>
<td>We can perform a paternity test without the mother’s participation. We can also test more than one child for an additional fee of $195 per child.</td>
</tr>
<tr>
<td>When is payment due?</td>
<td>We will begin the testing process as soon as we receive a $100 partial payment, which we will deduct from your overall balance. This initial payment is non-refundable. We will schedule your appointment when we receive the initial payment, and we will run the test as soon as all samples reach the laboratory. The results will be released as soon as the balance is paid in full; however you are welcome to make payments over time.</td>
</tr>
<tr>
<td>How are the DNA samples collected?</td>
<td>DNA samples are commonly collected using buccal (cheek) swabs. The process is simple and painless. You can use buccal swabs even on young children and newborns.</td>
</tr>
<tr>
<td>Where do I go to get the samples collected?</td>
<td>You will go to a collection facility, usually a local hospital or laboratory, to have your samples collected by a trained professional. We have the most collection facilities in the U.S., and we work hard to schedule your test at a time that is most convenient for you.</td>
</tr>
<tr>
<td>What should I bring to my appointment?</td>
<td>When you go to your sample collection appointment, bring the following to meet the legal requirements: a government-issued identification for adults and one form of identification for minors (such as birth certificate or social security card). Please note that the legal guardian must be present to sign consent forms for any minor child participating in the test.</td>
</tr>
<tr>
<td>Who receives copies of the test results?</td>
<td>Each person who participates in a DNA test or their legal representative will receive a copy of the test results. Additionally, the individual who signs for a child at the collection site will receive the test results.</td>
</tr>
<tr>
<td>What about my privacy?</td>
<td>We will not discuss the case with anyone not listed on the case. To protect your privacy, we will send results only via mail, courier, or fax (with signed authorization). We will not email the results or release results over the phone.</td>
</tr>
<tr>
<td>About DDC</td>
<td>DNA Diagnostics Center (DDC) is trusted with 3 out of every 4 private paternity tests in the United States. We are the laboratory of choice for individuals seeking the most accurate, legally admissible results. We guarantee conclusive results—our Dual Process™ guarantees your samples are independently tested twice, ensuring the highest accuracy of results.</td>
</tr>
</tbody>
</table>
Appendix 7. Sitemap for Prophase Genetics Website

- **Home**

- **About Us**
  - Mission and Values
  - Why Prophase Genetics?
  - Accreditations

- **Contact Us**

- **Understanding DNA**
  - Understanding Paternity Testing
  - The History of DNA
  - Private versus Legal Testing
  - 3-Step Process
    - Collecting the Sample
    - Analyzing the Sample
    - Interpreting the Results

- **Easy 3-Step Process**
  - Collecting the Sample
  - Analyzing the Sample
  - Interpreting the Results

- **Paternity Testing Services**
  - Private DNA Paternity Test
    - Additional Tested Person
    - Express Service
  - Motherless Paternity Test
  - Legal DNA Paternity Test

- **Other Testing Services**
  - Prenatal Paternity Test
  - Maternity Test
  - Grandparentage Test
  - Siblingship Test
  - Twin Zygosity Test

- **Fee Schedule**

- **Order a Paternity Test**

- **Frequently Asked Questions**
  - About Paternity Testing
  - About DNA

- **Free Resources**
  - Genetic and DNA Resources
  - Resources for Men
  - Resources for Women
  - Divorce and Legal Resources
  - Immigration Resources
  - Adoption Resources
Appendix 8. Prophase Genetics Homepage