

Prezi v. PowerPoint:  
Finding the right tool for the job

By Nicole L. White  
State University of New York Institute of Technology  
Utica, NY

SUNYIT

DEPARTMENT OF INFORMATION DESIGN AND TECHNOLOGY  
CERTIFICATE OF APPROVAL

Approved and recommended for acceptance as a thesis in partial fulfillment of the requirements  
for the degree of Master of Science in Information Design and Technology

\_\_\_\_\_  
DATE

\_\_\_\_\_  
Russell Kahn  
Director MS IDT

\_\_\_\_\_  
Steven Schneider

## Abstract

The purpose of this project is to determine which presentation tool works best to deliver a clear, concise message to an audience. The tools being studied are PowerPoint, the standard, slide-based presentation tool, and Prezi, the newer, non-linear software tool. A presentation was created in Prezi using the same content and multi-media as the original PowerPoint presentation. The principles of Human Centered Design Theory were used as a guide to analyze each tool. Research was further triangulated by creating two groups and showing both presentations to each. Each group then had to answer survey questions about the presentations. Finally, using volunteers from both survey groups a focus group was formed to further discuss both presentations and their reactions to each one.

## Acknowledgements

I would like to thank Eric O. Loori at Freedom Guide Dogs for the Blind, Inc. As founder of Freedom, and my boss, it was because of him that I was able to complete this thesis project. He allowed me to spend time during my work day to craft a different presentation and research different elements for the project. He was nothing but supportive and encouraging throughout this entire process. This final product would not be possible without him and I am greatly appreciative of his kindness and patience.

I would also like to thank my advisors at SUNYIT who guided me through the thesis process. Russell Kahn, Steven Schneider and Kathryn Stam brought forth different ideas and perspectives that all worked together in helping me make this project into an acceptable academic work. I truly appreciate all you have done to get me to this point, not just in completing my thesis, but in leading me through the Information Design and Technology program. I have the utmost respect for each of you and can never thank you enough for your support and guidance.

# Table of Contents

Abstract.....iii

Acknowledgements.....iv

List of Tables and Figures.....vi

Problem Statement and Question.....1

Literature Review.....2

Methods.....15

    From PowerPoint to Prezi.....16

    Surveys.....17

    Focus Group.....18

Analysis.....20

    Surveys.....20

    Focus Group.....24

    Findings.....26

Conclusion.....31

References.....33

Appendix I: Survey Questions.....35

Appendix II: Survey Results.....36

Appendix III: Focus Group Notes.....40

Appendix IV: Prezi Presentation.....42

Appendix V: PowerPoint Presentation.....43

List of Tables and Figures

Table 1- Capabilities of Prezi & PowerPoint.....10

Table 2- Audience Response to Prezi.....28

Table 3- Audience Response to PowerPoint.....30

Graph 1- Group 1 Response to Presentations.....22

Graph 2- Group 2 Response to Presentations.....24

## Problem Statement and Question

There are more than 1,300 non-profit organizations (NPO) in Oneida County, (Taxexemptworld.com, 2011). Each one is competing for the same dollar. The status of today's economy creates an environment in which non-profits are struggling to survive. The number of foundations giving grants has declined, grant amounts have decreased significantly and state funding in New York has become nearly non-existent.

Standard fundraising practices need to grow and change if NPOs are going to be successful. "The most important skill for almost everyone in the next decade and beyond will be the ability to create valuable, compelling, and empowering information and experiences for others," (Jacobson, 2000, p. 267).

Traditional NPO fundraising and communication is done through bulk mailings, special events, grant writing, sponsorships and informational presentations. "For many organizations, prospects and donors do not have personal knowledge of a nonprofit's day-to-day activities, so they depend upon communications when making decisions about where to contribute" (Haubrich, 2010, par. 2). Through all these modes of communication, it is crucial to have a clear and distinct message that remains consistent.

The goals of this project will be to study what elements of a presentation engage, motivate and inform an audience and to find out which tool is efficient and effective in delivering a message. The project will compare two presentation tools; the standard slide-based tool, PowerPoint, and a newer, non-linear tool, Prezi.<sup>1</sup> These presentations will be built around and judged upon the principles of Human Centered and Information Design.

The question this project will seek to answer is: What presentation tool works better to motivate and inform an audience according to principles of Human Centered Design?

<sup>1</sup> Prezi is a presentation tool that is used online. The tool allows the user to put ideas, images and video onto a large blank canvas then zoom in and out on specific items in order to emphasize importance.

## Literature Review

According to Bernhardt (2006) “The knowledge conveyed to the listeners increases when there is audience participation and the presenter’s style is dynamic and engaging,” (p. 317). Prezi provides a distinct presentation experience that presents information in a non-linear fashion. This allows the presenter more flexibility and creates a way to show relationships among different items in the presentation. In doing so, the audience may get a better idea of the big picture. At the same time the zooming feature in Prezi could potentially capture and hold an audience’s attention. PowerPoint offers a vast array of background patterns, design templates plus transition and animation effects that engage the audience. In addition to movement and color schemes, each tool allows for easy incorporation of multimedia such as audio, video and images.

While each tool has its benefits, both have come under criticism at one time or another. According to Harris (2004) “More often, clear-thinking, articulate people who use PowerPoint are transformed into muddied, monotonous speakers who shoehorn their thoughts into bullet points and anesthetize audiences with their slideshows,” (p. 50). Prezi has faced some less than gleaming reviews for its unfamiliar interface and dizzying zooming capabilities. “All the whizzing might be distracting for someone who wants to get a message across,” (Adria, 2009, par. 2).

Comparing the same presentation created separately using each presentation tool will provide insight about which tool is more appropriate for achieving the goals of the presentation. In learning more about what each tool has to offer better information design can ultimately be achieved.

Microsoft PowerPoint is a tool that has long been used for instruction. Whether teaching a class or giving a talk in front of colleagues, this slide-based technology has been the standard

“go to” for presenting your information in an organized fashion. “In 2002, it was estimated that more than 400 million copies of PowerPoint were in circulation...” (Craig, 2006, p. 147). In addition to its popularity, PowerPoint has also been the subject of much criticism. “Although PowerPoint promises much in terms of delivering content efficiently and offering attractive and dynamic presentations, some critics allege that a frequent outcome is a vacuous monotony” (Craig, 2006, p. 148). In determining how PowerPoint stands up to other presentation tools it is important to examine its strengths, weaknesses and effectiveness.

Daniels (1999) takes a look at the advantages that PowerPoint offers to both the student and the teacher while giving a fresh perspective of the tool’s attributes. “The most obvious benefit for students is the visual differentiation” (Daniels, 1999, p. 44). PowerPoint offers seemingly endless possibilities when it comes to slide design. “Multiple colors are used for the text, graphics and backgrounds of the slides...” (Daniels, 1999, p. 44). Besides color, other visually stimulating features are offered using “builds” and “transitions” as well as animation effects. “[These] techniques add to the explanatory power of the presentation in addition to enhancing visual appeal” (Daniels, 1999, p. 44). Other than visual stimulation, PowerPoint gives the user the ability to insert hyperlinks onto a slide. Also, when used in conjunction with tools like SlideShare, an entire PowerPoint presentation can be uploaded to the web to be shared with others or accessed from any location with internet access. “Students can have access to the slides outside of the class. This also allows the slides to be used as part of distance learning courses that are web-based” (Daniels, 1999, p. 44).

A distinct advantage PowerPoint is that it has the ability for the user to print handouts of the slides allowing students to easily follow along with the lecture. “Students can pay closer attention to what is being said rather than nervously writing everything down” (Daniels, 1999, p.

45). The advantages offered by PowerPoint through its audiovisual capabilities can be useful to people who have different ways of taking in information. The variety of presentation techniques offered including the structured style of the slides enhance learning for people with certain personality types or learning styles as characterized by the Myers-Briggs Type Indicator (Daniels, 1999). The idea here is creating more of an experience for the audience as opposed to a one-way conversation. “One could point out the many benefits using PowerPoint brings to the classroom experience for students: increased attention span, portability, integrated audio/video and the aesthetic enhancements of content” (PowerPoint, 2000, p. 2). In addition to the audiovisual advantages of PowerPoint, Anderson (2004) discusses the advantages that come with the ease of use. “Slides allow advanced preparation of material, improving organization of the presentation and giving means of showing information-rich content such as complex tables, formulas, programs and diagrams (p. 31). Anderson (2004) also touches on sharing and modification capabilities of PowerPoint.

However, with all the advantages offered, there are numerous claims that most PowerPoint presentations fall short of the dynamic visual show that it is equipped to provide. “The basic issue is that [PowerPoint] tends to script a lecture and does not provide mechanisms to adapt the presentation to the audience” (Anderson, 2004, p. 32). Other disadvantages include possible technical difficulties, investment of time, loss of resolution for graphics and it can sometimes hinder teaching style (PowerPoint, 2000). File size can also be a hindrance to the presenter. “Being a pre-internet software, PowerPoint creates bulky files, especially when pictures, audio and video are added” (Miltenoff; Rodgers, 2003, p. 35). Even with upgrades to the software that allow a presentation to be saved as a web page, “The file size of the created web site is still significant,” (Miltenoff; Rodgers, 2003, p. 35). Milton & Rodgers (2003) also

discuss the complications created when inserting video into a PowerPoint slideshow. An “absolute link” is created that references the original file on the hard drive of the computer in which the presentation was created. “If the presenter wants to move and run the presentation from a different computer, all the video clips must be inserted again” (Miltenoff; Rodgers, 2003, p. 36). Tufte (2003), possibly the angriest author on the topic, compares PowerPoint’s method to Stalin saying, “PowerPoint's pushy style seeks to set up a speaker's dominance over the audience. The speaker, after all, is making power points with bullets to followers” (para. 3). Tufte (2003) also refers to PowerPoint’s ability to take data and turn it into a chart or graph, calling it an “analytical disaster.” According to Tufte (2003) the importance of data falls short when morphed into indecipherable graphics. “Poking a finger into the eye of thought, these data graphics would turn into a nasty travesty if used for a serious purpose.” (para. 7). One of the more poignant assertions by Tufte (2003) criticizes the presenter’s use of the tool without keeping the audience in mind. “Rather than supplementing a presentation, it has become a substitute for it. Such misuse ignores the most important rule of speaking: Respect your audience” (para. 10).

In a survey taken in 2003 titled, The Annoying PowerPoint Survey, results pointed to specific qualities of a PowerPoint presentation that people found to be annoying. Among some of the top rated annoyances were; The speaker read the slides to us, text so small I couldn't read it, full sentences instead of bullet points and slides hard to see because of color choice. (Paradi, 2003). Among other annoyances, poor preparation and little knowledge of the technology stood out in the survey results. “Awkward usage of PowerPoint and presentation technology was mentioned a number of times as detracting from the message being delivered” (Paradi, 2003, para. 4).

As a result of this research it would seem that PowerPoint has its pros and cons. Design wise there are seemingly endless possibilities for creating a visually exciting presentation. Technically it is very user friendly and has numerous capabilities for graphics, images and video content. However, many issues dealing with a PowerPoint presentation seem to lie with the presenter, not the tool itself. Putting an audience to sleep with text-filled slides and incoherent data is a design issue. Being prepared does not mean copying all the material onto 67 slides. No animation or unique design will substitute the power of good content for the audience.

Prezi is a newer flash-based application that allows the user to create a presentation using a large, blank page instead of traditional slides. In a general comparison as presentation tools, PowerPoint and Prezi are like smooth vs. crunchy peanut butter. They're different, some prefer one over the other, but they both serve pretty much the same purpose. So what's the buzz about Prezi? According to Lorang (2010) "Prezi is a radical departure from the traditional slide show paradigm in that it is not linear," (para. 2).

Even before PowerPoint, presentation tools were simple slides projected onto a wall or screen, which is why they were referred to as "slideshowes." PowerPoint and its other slide-based counterparts are mere electronic versions of the original slide. Prezi takes us back even farther in time, mirroring lessons taught by scrawling notes in chalk on a blackboard. "Think of the presentation area as a big blackboard or giant sheet of paper where you have been scribbling your thoughts and ideas as if you were just jotting notes down on a sheet of paper at your kitchen table," (Lorang, 2010, para. 2). In addition to its seemingly infinite canvas of opportunity, Prezi has a unique zooming feature. "With a Prezi it is possible for the presenter to simply click the background with the mouse and the presentation zooms out to an overview, then the presenter can zoom into the area they want," (Lorang, 2010, para. 10).

Aside from being non-linear, Prezi offers new ways to look at your ideas, or perhaps it's just a new method of an old way of looking at ideas. "[Prezi] forces you to think about the relationship between the ideas you intend to present," (Swanwick, 2009, para. 6). By having one blank canvas to work from your thoughts and ideas come together more like they would in a brainstorming session. By looking at all of your ideas at once, you start to see how they connect and begin framing them based on the message you want to get across. "Prezi offers the opportunity to present content not as chunks whose relationship is only maintained by the fact that they strung together in a linear fashion, but as content that is logically related sets and subsets that are connected in a very spatial manner (and can be navigated non-linearly)" (Watrall, 2009, para. 7). Its non-linear style of presenting information is complimented by the ability for the user to create his/her own paths. "Prezi offers additional linear paths, knowing that 'time is linear' when you present, as Adam Somlai-Fischer put it. Users can jump in and out of these paths and are thus given enormous flexibility in storing and presenting information" (Leberecht, 2009, para. 3).

Leimbach (2010) discusses more of the advantages of Prezi, mainly from a teaching standpoint. "It's easy to put in small amounts of text and more difficult to enlarge the boxes to add 'too much' text. This encourages students to use bullets rather than paragraphs," (para 4). In addition to less text, Leimbach (2010) talks about the limited options for design, which some would see as a disadvantage. However, for the creator, this "limitation" can present itself as an advantage. "Prezi limits 'glitz' options significantly. It has about 8 backgrounds to choose from, and each has pre-programmed fonts and colors that can't be changed. No more getting lost in the color picker or the font window," (para. 3). Prezi makes video and image uploads fairly easy, however the size of the file can create problems. "Prezi also lets you upload a wide variety of file

formats for images and videos, but limits the file size to 50 MB for the free version,” (Leimbach, 2010, para. 6). An interesting feature is that Prezi’s zooming capabilities work within the images in the presentation. “You can have the program zoom to a portion of the photo- ask prediction questions- then have the program zoom out to show the entire scene,” (Leimbach, 2010, para. 5). A distinctive feature about Prezi that really makes it stand out among the slide-based competition is its sharing capabilities. According to Leimbach (2010), this is quite significant.

You can share presentations with up to 10 viewers and allow them to edit-making collaborative work a breeze...Prezis embed easily into most web pages and can be used as standalone teaching aids with some creativity in the design of the presentation. Links to public prezis can be posted or emailed- making student work easy to share with family and the world. (para. 7 – 8)

While Prezi has its advantages, there are many who see disadvantages among some of its most notable attributes. According to Leberecht (2009) “Many first-time users...struggle with the challenge of filling a “blank canvas,” as they can become overwhelmed by the freedom created by a level of user empowerment they’re not used to within the strict confines of PowerPoint templates,” (para. 4). There have even been issues with the over-use of Prezi’s zooming capabilities, creating distraction and confusion for the audience. Jumping from one item to another and zooming in and out all over the place can become dizzying and ultimately take away from the overall message one is trying to present. “At the end of the day, you still have a story to tell, and Prezi’s simple way of putting information anywhere you like can ironically lead to the very information overload it aims to avoid,” (Leberecht, 2009, para. 3).

Among other drawbacks to Prezi is the quality of the presentation. “The very nature of Prezi (remember, it’s a web app) means that you aren’t going to get the kind of crazy high quality presentation you can get with purely desktop based slide authoring apps,” (Watrall, 2009, para. 10). Also, though Prezi is fairly simple to learn, its interface takes some time getting used to. According to Watrall (2009) it would have served the creators best to give it “a little more time in the oven” before releasing it. (para. 10) Finally, for those wanting to use Prezi on a more regular basis, like teachers for example, a major obstacle is cost. For an offline version to use on a desktop, one would have to pay \$159/year! While there is a student discount version provided online, it still offers limited file space and storage. The cost also impedes use by educational institutions that would want to give students accessibility on multiple computers.

Some of Prezi’s drawbacks could initially deter someone from using it. Most people like to stay within their comfort zone and Prezi is certainly outside that zone for a lot of “regular” presenters. “I think if you’re a designer, you can really make an impressive visual presentation with Prezi but I think for the “regular” presenter, the learning curve might be too steep, especially in the beginning,” (Adria, 2009, para. 2). However, according to Adria (2009) even designers may not get the desired results. Its capabilities could be considered too limited. “I think it’s a bit too complicated for regular users to use but not powerful enough for designers (they might as well use Flash), so I think the target audience is a bit too small,” (para. 3).

Overall, Prezi has its good points and its bad points, just like PowerPoint. In order to understand each tool’s advantages, disadvantages and capabilities, below, is a table (Table 1) comparing the two.

User Capabilities	Prezi	PowerPoint
Design Tools	Prezi now offers a multitude of free, reusable templates. The user can also create a personalized template to upload as a background. Can insert frames, shapes, lines and arrows.	Comes with a multitude of pre-formatted templates as well as an almost endless number of color palettes to choose from. Colors, backgrounds and fonts can be easily changed creating infinite design possibilities.
Video/Audio/Images	Free version supports limited file types (Flash) and sizes (50mb for video or 2880 pixels for images). This is also true with the purchased desktop version.	Can support multiple video/image/audio file types and larger sizes. Video or audio can play automatically or by clicking. If using different computer, files contained in presentation must be transferred to that computer or packaged on a CD so they show up.
Special Effects	Zooming allows user to move in, out and around presentation focusing on different items. Allows flash files if user wanted more animation.	PowerPoint offers a number of animation and sound effects, transitions between slides, and “builds” which allow one line of text at a time to appear on the slide.
Sharing	Free version offers sharing/editing with up to 10 other users. The link created by making a Prezi can be emailed or posted on a webpage and used like any other hyperlink. There is a cost to download your Prezi in order to have a desktop version of your presentation.	PowerPoint files can be quite large depending on the number of video/image/audio files it has. Not convenient for emailing. In conjunction with tools like Slideshare, PowerPoint files can be uploaded to the web and shared through using a hyperlink.
Presentation	A path can be created in order to follow a pre-determined train of thought for a presentation. Zooming allows the user to stray from that path for more adaptability for a live presentation. Could be tricky without practice. No printable slide hand-outs for audience to follow or take home.	Difficulty in getting to a specific slide once presentation has begun. Options for presenter view and audience view. Printable hand-outs so audience can follow along or take notes. In presenter view there is a space for notes for each slide in case the presenter gets off track.
User Interface	Very different from standard UI. “Zebra tool” can be difficult to get used to. Fairly easy to learn with practice.	User friendly. Sidebar on left of page makes for easy management of slides and positioning of slides. Similar to other familiar Microsoft office interface.
Other	View specific items by framing them within visible brackets, circles or invisible box. Also takes practice. When creating path, make sure it is saved on first view; otherwise your presentation will start backwards. Internet connection is necessary for use unless you have downloaded your presentation or purchased the desktop version. Prezi is available online and for download.	Projector, screen and laptop may be required if you are transporting your presentation. PowerPoint is only available on individual computers.

Table 1 This table compares, side by side, the user capabilities of Prezi and PowerPoint.

If the comparison between PowerPoint and Prezi is to be more thorough, besides looking at technical attributes, one must examine the aspects of how these tools can interact with users to create an experience. Characteristics of Information Design (ID) will be used in order to help guide the comparison. “All of us, all of the time, are both producers and consumers of information,” (Jacobson, 2000, p. 1). Therefore, whether we are producing or consuming information, it is critical to try and understand what works, what doesn’t and why. Jacobson (2000) states “The best information design acknowledges and uses the interactive nature of communication to convey meaning and heighten understanding among all parties involved in an activity or event,” (p. 2).

According to Sherdoff (1994) Information interaction design is the intersection of the disciplines information design, interaction design, and sensorial design,” (p. 1). When combined, using the right tool, they can help a presenter create a meaningful experience for an audience.

In comparing Prezi and PowerPoint as presentation tools, it is important that they be looked at as what they essentially are, information design tools. Each tool was created specifically for the purpose of providing information in a way that would help people to better understand a certain message. Sherdoff (1994) reiterates Richard Saul Wurman’s idea that most information is merely data and that data is worthless to most. Information design is the product of sculpting that data into a clear message that has significance to others (par. 2). “To have informational value, [data] must be organized, transformed, and presented in a way that gives it meaning,” (Shedroff, 1994, par. 2).

As a presenter in front of an audience, it is key that the information has meaning, but it also organized in a way that it can be easily understood and absorbed by the audience. It is crucial to have their best interests at hand when it comes to information design. Also important is

the presenter having control over the information and the tools being used to present that information so as to create the best experience possible for the audience. The principles of Human-Centered Design with a focus on usability will act as a guide to creating a good presentation and measuring the response from the audience.

Stone (2001) discusses the principles of Human Centered Design (HCD) as set forth by guidelines of international standard ISO 13407; Ensure the active involvement of users, appropriate allocation of function to system and user, iteration of design solutions and ensuring the design is the result of multidisciplinary input. (p. 2) As part of the guidelines for HCD the standard also included a separate listing of principles specifically for HCD Activities. “Understand and specify the context of use, specify user and organizational requirements, produce more than one candidate design solution, evaluate designs against requirements,” (Stone, 2001, p. 2). Cooley (2000) provides a more palpable list of necessary characteristics for system design if those systems tools are to be successful in the scope of HCD. They are coherence, inclusiveness, malleability, engagement, ownership, responsiveness, purpose, panoramic and transcendence (p. 68-70).

Principles of HCD can be applied to information design tools or other technology tools in order to evaluate them. This is important if designers of such interfaces are to create better technologies that both meet the user’s needs and perform intended tasks in an efficient, effective way. “It is necessary to suppress the temptation simply to procure the latest and most exciting technologies and concentrate instead on analyzing what it is the end user actually requires and the tasks he or she performs,” (Stone, 2001, p. 2). Prezi is the newer technology that is really creating a buzz in the world of presentations. PowerPoint is the standard presentation tool that

has taken quite a bit of criticism, but remains the “go-to” for most people that need to create presentations. The purpose of this project is to discover which tool is right for the job and to give credit where credit is due. Perhaps Prezi is the dynamic new way for people to give presentations, or maybe the buzz is just that, buzz.

It is easy to get wrapped up in the latest technologies. They can be exciting and dynamic. But what is important is finding the right tool for the job. By using principles of HCD as a guide for evaluating and analyzing these tools, it will be easier to reach intended goals using technology as opposed to using technology for the sake of technology. According to ISO 13407, “Human centered processes require more investment in the early stages of the lifecycle, but have been found not only to reduce in-service costs, but also to reduce development costs,” (“Human Centered Design Process,” 1999). In addition to saving time and money, ISO 13407 maintains that using HCD can make development and use of such technologies more efficient, predictable and controlled (“Human Centered Design Process,” 1999).

HCD is mostly used for the purpose of evaluating interactive technologies such as simulations. However, according to Collura (n.d.), HCD encompasses a multitude of diverse fields such as: Psychology, Ergonomics, Engineering, Design, Language, Sociology, Ethnography, Computer Science, and Semiotics, (p. 4). Therefore, the principles can easily be applied to tools like Prezi and PowerPoint in order to evaluate an audience’s response to a presentation. Collura (n.d.) refers to “Optimized Human Factors Design” saying that “A product’s usability, acceptance and marketability are often dependent on the user feeling that it is easy to learn and use...and increases the learning speed, efficiency and comfort level,” (p. 2). If we think of the audience as the “user” in the case of a presentation, it is important that they are

comfortable with and accept the information being presented so that they can more efficiently and effectively absorb the message being put forth. Keeping the “user” in mind, an outstanding measure in HCD is usability. According to Nielsen (1993) “Usability, central point of [Human-Computer Interaction] designing, is part of a broader scope of what makes a system good enough to be acceptable to the end user and other stakeholders, satisfying the needs and requirements of both (as cited by Collura, n.d., p. 5). Focusing on usability in HCD, the following usability factors as identified by Nielsen (1993) will also guide the process of comparing Prezi to PowerPoint: Learnability, efficiency, memorability, errors and satisfaction (as cited by Collura, n.d. p. 5). Based on these factors and Shneiderman’s (1998) “8 Golden Rules for Interface Design,” Collura (n.d.) has proclaimed four important principles that give the basics for good design. They are: Learnability/Familiarity, Ergonomics/Human Factors, Consistency/Standards and Feedback/Robustness (p. 7). Playing a major role in the comparison between Prezi and PowerPoint will be the affects familiarity have on the audience reaction. “The principle hindrance of effective interface interaction is lack of familiarity based upon knowledge of the system” (Collura, n. d. p. 8). Therefore it will be necessary to create a way of incorporating a measure of familiarity into the evaluation/comparison process.

With usability being such a central point of HCD, the principles of HCD often intersect with the principles of User-Centered Design (UCD). The Institute of Human Centered Design lists these principles as: Equitable use, flexibility in use, intuitive use, perceptible information, tolerance of error, low physical effort and size and space for approach and use (“Principles of Universal Design” 2011). This project will not only seek to find the right tool for the job, but also help to determine how to get the job done in the best way. Therefore a major goal of this project is to get the information across to the user/audience affectively. Perceptible information

will be a crucial component to consider during the evaluation/comparison process. The Institute of Human Centered Design defines perceptible information as “The design communicates necessary information effectively to the user, regardless of ambient conditions or the user’s sensory abilities” (“Principles of Universal Design” 2011).

By taking into consideration all the overlapping principles of Human-Centered Design and usability a survey can be used to evaluate audience response to each tool. Characteristics and specific factors will be used to create questions that will strive to answer questions pertaining to the effectiveness of both the Prezi presentation and the PowerPoint presentation. Ultimately, the answers can help in understanding which tool work better for a particular job.

## Methods

In trying to find the right tool for the job, a comparison of both presentation tools, Prezi and PowerPoint will have to be conducted. In order to ensure that the comparison provides accurate, unbiased results, several methods will be used. In addition to research done on both tools, two survey groups and a focus group will be conducted. “Though qualitative researchers can never capture an objective ‘truth’ or ‘reality,’ there are a number of strategies that as a qualitative researcher can use to increase the credibility of your findings...” (Merriam, 2009, p. 215). Merriam (2009) further discusses what is called triangulation, using multiple sources of data and multiple methods in order to confirm findings. (p. 215).

By using the same content, the same multimedia such as video, links and images in the original PowerPoint presentation, a second presentation created in Prezi will be used as a comparison. Then it will be up to the audience that views both to determine which presentation tool they prefer, if any. The factors to be considered will be based on principles of human-centered design.

## From PowerPoint to Prezi

Freedom Guide Dogs uses a standard PowerPoint presentation to provide information to an audience in order to motivate them to donate to the organization. One of the goals of this project is to find a better way to do that. In attempting to reach that goal, Prezi, a newer, non-linear presentation tool is being used as a comparison to the original presentation. In conjunction with principles of HCD, this will help determine which tool is best for the job, or what changes can be made to improve on the original presentation.

To make it a fair comparison, nearly all of the same images, video and information content from the original PowerPoint presentation are being used to create the Prezi. Also the same is the order in which the information is presented. The major differences that are paid attention to are simply the different attributes of each tool. For example, instead of transitioning to the next slide as in a PowerPoint, the Prezi will “zoom” into the next piece of information. These animation effects used in both PowerPoint and Prezi are going to be a contributing factor to the level of engagement with the audience. Another characteristic of HCD according to Cooley (2000) that creates “A sense that one is being invited to participate...” (p. 68).

Another difference between the two presentations will be the use of text. Text in the PowerPoint will simply be read across the slide. The Prezi will take advantage of the zooming capabilities and emphasize some of the text shown rather than just let the audience read it. Coherence is also a characteristic of successful HCD according to Cooley (2000). Analyzing the responses of the audience to the zooming and transitions, or the placement or replacement of text will determine what works best for the audience in terms of coherence or “rendering highly visible what is going on,” (p. 68).

Finally, an important point to consider is the fact that PowerPoint is linear and Prezi is non-linear. Information presented in a PowerPoint is on an ordered number of slides that go from one thing to the next. Prezi is information grouped onto a large canvas in which the presenter has to zoom into. Visually, the audience perception of the information could be affected from one presentation to the next even though the same information is being presented.

## Surveys

For the purpose of this project, a survey was used to answer questions pertinent to obtaining specific information. The survey questions were created using principles of HCD as a guide to determine what an audience likes, what they respond to and how well they absorb the information provided in each presentation. For example, a major characteristic of successful HCD, as discussed earlier, is usability. One of the factors affecting usability is familiarity of the interface and design. Therefore, to determine how this might affect the audience response, one of the survey questions asked is about the participant's familiarity of the presentation tool being used. Other questions in the survey ask about visual design, the flow of information and the audience's overall understanding of what was presented. A final, open-ended question gave the participants the opportunity to comment further on what they thought about the presentation.

In order to create the survey groups, a media communications class at SUNYIT was randomly divided up into two groups, one group of 18 students, the other of 17. The first group of 18 students was asked to view a PowerPoint presentation first. After the presentation, the group answered 6 survey questions including questions in which they had to give a number rating to certain aspects of the presentation. Next, the same group was shown the Prezi presentation. After that the group was given the same survey and had to answer the questions pertaining to the Prezi. See Appendix I for survey questions.

In order to maintain fair, unbiased results, the second survey group was used. This group first viewed the Prezi. They then took the same survey as the first group. Then they viewed the PowerPoint presentation and again took the same survey, answering questions in response to it. All survey results remained anonymous.

## Focus Group

Many times, focus groups are used for marketing purposes. In the non-profit world it is a great way to assess an NPO's image based on the perception of the constituents or donors. "Focus groups provide an opportunity to gather input from people from various roles and backgrounds and with different perspectives" (Wiesenfelder, 2010, para. 2). It is a great way to learn what message you are sending compared to the message you want to be sending.

Focus groups are also great for adaptability. There may be a certain set of questions lined up to address certain issues. However, based on the conversation, a new issue may arise that was not thought of prior. This allows the facilitator to delve deeper into that issue and solve a potential problem that would have otherwise gone unnoticed.

As with any information you are gathering there has to be an objective. The focus group will serve no purpose if there is not a clear objective in mind to base questions and discussion around. The questions for the focus group will be based around the characteristics of human-centered design. The goal is to find out which presentation tool does the best at meeting these characteristics. The open-ended discussion will also serve as a platform for additional information about the approach to the presentation.

Merriam (2009) discusses different types of questions that could be asked depending on the kind of responses you hope to generate. Some include experience and behavior questions, opinion and values questions and feeling questions (p. 96). Other types of questions that can be

useful are taken from the Strauss, Schatzman, Bucher and Sabshin's 4 categories of questions: hypothetical, devil's advocate, ideal position and interpretive questions. (Merriam, 2009, p. 97). The purpose of asking questions in this focus group is to uncover the aspects of human centered design that the audience experienced during the presentation. Therefore the types of questions will be mostly opinion, feeling and sensory questions. It will also be very useful to incorporate ideal position questions. "They are good to use in evaluation studies because they reveal both the positives and the negatives or shortcomings of a program" (Merriam, 2009, p. 98). According to Merriam (2009) it is also very important to include open ended questions because they elicit descriptive information (p. 99).

In order to create the focus group, 2 male and 2 female participants were chosen from each survey group for a total of 8 participants. Participants were brought into a separate room and asked a series of questions. This resulted in a less formal discussion about certain aspects of Prezi, PowerPoint and the participants' opinions on each. Due to timing constraints the focus group was allotted 40 minutes. No recording device was used for this focus group. Instead, notes were taken throughout the 40 minute period then transcribed immediately following the focus group session. All participants were informed that any information gathered from this focus group would be used specifically for this graduate thesis project. Participants will remain anonymous. Participants discussed the following topics regarding Prezi and PowerPoint:

1. Their familiarity with each tool, what they thought about it and how they used it if ever.
2. Which presentation they liked better, why, what they would do differently, etc.
3. Which tool they thought was better for presenting information, if any.

Once all the information was collected and transcribed, it was analyzed separately then collectively in order to make a determination as to which presentation tool, if either was better for the job of motivating donors to give.

## Analysis

Major themes arising from the results of this research are the affects the zooming capabilities of Prezi have on an audience, audience perception of the flow of linear vs. non-linear information and affects of visual design on understanding of information.

## Survey

The survey results were tabulated by charting the answers to each question from Group 1 PowerPoint Presentation, then Group 1 Prezi, followed by Group 2 Prezi and Group 2 PowerPoint. Next, the results from Group 1 PowerPoint were compared to the Group 1 Prezi. The same was done for the presentations of Group 2. Finally, Group 1 and Group 2 results were compared as a whole. See Appendix I & II for both surveys, what was asked of the participants and the results. The following discusses what those results showed.

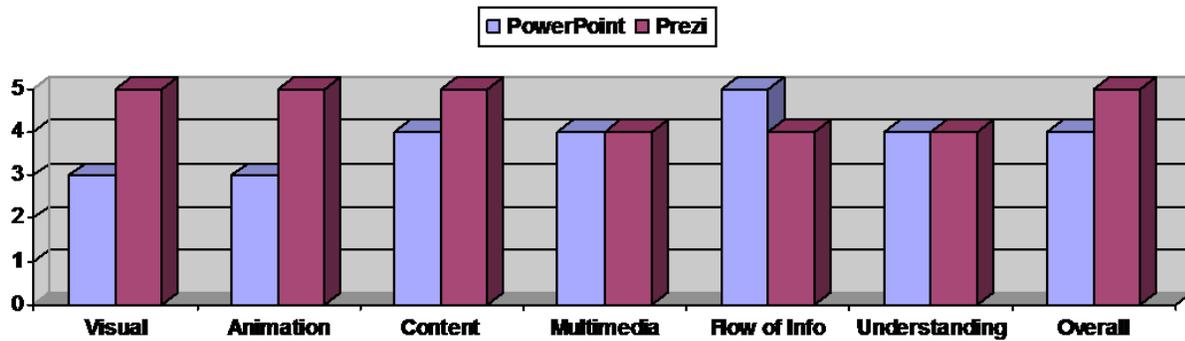
In Group 1 all but one participant had both used and seen a PowerPoint presentation. The one participant that had not seen or used PowerPoint gave the presentation very positive feedback and only commented that the visual design could have been better. Overall, the participants gave the PowerPoint presentation pretty average scores. Standing out the most were the low ratings for visual design, mostly having to do with color schemes, backgrounds, lack of transitions and placement of images. Some of the stronger aspects of the PowerPoint showing up in the results were regarding content and information. Comments indicated some participants having questions and wanting to know more, showing that the presentation was intriguing and

sparked some interest for learning more. When applied to the real-life presentation situation, this would result in a great question/answer session, possibly leading to future contact with interested parties. Though overall design was lacking, information was delivered and interest was piqued.

For the Group 1 Prezi, familiarity was nearly reversed when compared to PowerPoint. 61% of participants had never seen, used or even heard of Prezi. Those who had used it had done so strictly for the purpose of a class they were taking. This lack of familiarity with Prezi could be the cause of comments related to the presentation being confusing or lacking information. Despite the fact that most of the same images and video were used in the PowerPoint, Prezi received visibly higher ratings for visual design and appeal. This could also be a result of Prezi being new to most. Perhaps it seemed more interesting because of its new style and way of moving through the information. While visually, Prezi did better than PowerPoint, many comments pointed to the information lacking, being confusing or not flowing well. Again, the same information was used in Prezi as in the PowerPoint. After looking at the results it would seem that the lack of text, zooming and focusing in on certain items distracted or took away from the actual information.

Graph 1 below compares the results of group 1 Prezi to Group 1 PowerPoint. As shown by the chart, Group 1 thought Prezi had better visual design, animation, content and overall performance when compared to PowerPoint. Looking at aspects of multimedia and understanding of the information presented, PowerPoint and Prezi rated nearly identical. However, PowerPoint took the lead with the flow of information. This is an interesting finding because PowerPoint is the traditional linear, slide-based tool. The flow of information might appear to be more in order in a visual sense and in the sense that it is being presented using an ordered number of slides. Prezi on the other hand is a non-linear open source tool. Even though

the same information was presented, perhaps it was perceived as less flowing because it was literally scattered on a blank canvas.

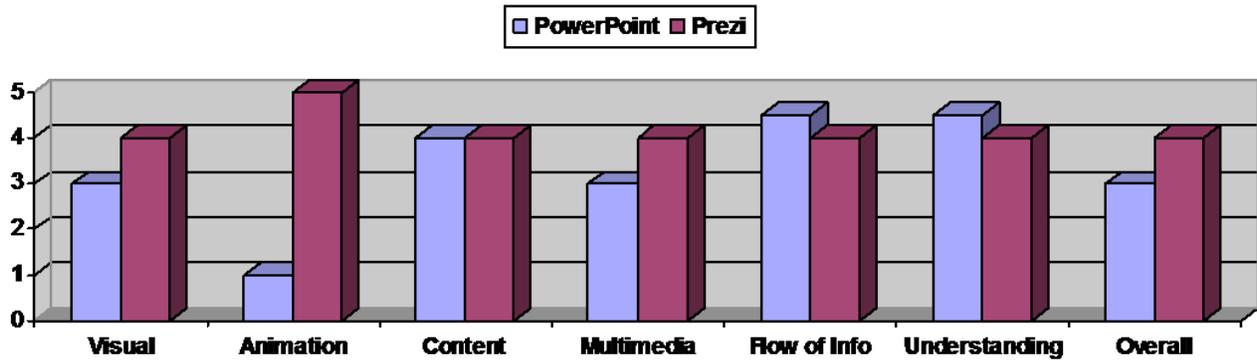


Graph1 This graph compares Group 1 findings of Prezi v. PowerPoint. Students rated specific aspects of each presentation on a scale of 1-5. Prezi had a higher rating than PowerPoint in four out of the seven categories. PowerPoint rated higher than Prezi in one category.

For Group 2, Prezi was shown first, then the PowerPoint presentation. About 71% of participants were not familiar with Prezi at all, never having seen one or used the tool for themselves. Similar to Group 1, the participants that had used it had done so as a requirement for a class. Despite the lack of familiarity most of the ratings for the presentation were very positive. What was contradictory in the results for this group was that many of the ratings for attributes such as visual design and animation were very high. However, in the comment section, about 65% of the remarks made suggested improvements regarding design, color animation, etc. Other comments made had to do with the zooming capabilities. As for the information and content of the presentation, most understood it and thought it flowed. One student remarked that the zooming was distracting. Another interesting result is that some participants requested more text and fewer images, also indicating that the information was slightly lacking.

The PowerPoint for Group 2 had slightly less consistent results among participants. For example, ratings for different attributes were pretty scattered. Visual design, animation, etc. were ranked mostly in the 3-4 range, (5 being the highest score), but there were quite a few scores on both the high end and low end. Results for information showed that PowerPoint did pretty well delivering the message.

In the end, Prezi received overall higher ratings than PowerPoint. Both presentations, according to the survey ratings, could use some improvement in visual design. According to graph 1, PowerPoint received low ratings for visual design. While Graph 1 indicates good ratings for Prezi in the area of visual design, written comments from the survey show that participants would have preferred more color, better use of images and different use of background design. A comparison of the results is shown in Graph 2 below. What stands out in the results for Group 2 are the mixed comments received about the zooming in Prezi. Some were intrigued and said it held their attention better, while others thought it was distracting and unnecessary. Also interesting is while the zooming was seen as distracting for nearly 10% of participants, more than 25% of the comments from the PowerPoint indicated that there should be more transitions and more animations, (see Table 2 & Table 3 for further detail). This could have to do with the fact that the Prezi was shown first in this group, therefore maybe participants were subconsciously looking for more movement in the PowerPoint. It is clear, from the graph below, they thought this aspect of the PowerPoint was lacking. Also clear about the results is that PowerPoint rated higher than Prezi when it came to flow and understanding of information, receiving scores in the 4-5 out of 5 range. This is an important result as a main goal of this project is to deliver a clear, concise message to an audience.



Graph 2 This graph compares Group 2 findings of Prezi v. PowerPoint. Students rated specific aspects of each presentation on a scale of 1-5. Prezi rated higher than PowerPoint in four out of the seven categories. PowerPoint rated higher than Prezi in two out of the seven.

After comparing results of Group 1 to results of Group 2, Prezi had the most consistent results from both groups. Prezi ranked higher than PowerPoint in visual design, multimedia and animation. However, content, flow of information and understanding of information remained similar or slightly less for Prezi. One major issue that stands out is the mixed comments sparked by Prezi's zooming capabilities. 14% of participants made positive comments regarding the zooming, stating that it captured their attention and held it for most of the presentation. Close to 12% of participants made comments stating that the zooming was distracting. It is not yet clear whether the zooming grabs and holds attention, or distracts from the information being presented.

### Focus Group

The focus group added much needed depth to the answers from the survey groups. Throughout the 40-minute discussion, much about the feeling of each presentation tool was revealed. What was particularly helpful was talking to the participants about their use of the tool in addition to what they thought of from an audience perspective. See Appendix III for focus group notes.

First, familiarity with each tool was established. As the results from the survey, all of the students were familiar with PowerPoint. However, different from the survey results was the fact that the majority of the focus group had used Prezi before. Of those that did, a major theme in that topic was the different user interface Prezi offered. Though comments described it as “weird” and “having a learning curve to it,” the overall feeling was that it was easy to use, but just needed some getting used to. A point brought up during the Prezi discussion touched on privacy issues. When using Prezi, the computing is performed through an online network, or the internet, some people would not be able to use this tool simply because the information is not necessarily secure enough. This is a good point to consider when choosing a presentation tool specific to one’s needs.

The two participants that had never seen or used Prezi reflected the results found in the survey group. One of the two thought that the zooming was interesting and gave the presentation a “streamlined” look, while the other thought it was distracting. In fact the student that was distracted by the zooming did not necessarily dislike it. In his words, “I was like, woah, we just went right into that house!” Unfortunately, as a result he missed the information that was being talked about. Even some of the other participants familiar with Prezi nodded in agreement to his assertion.

Nearly half of the participants agreed to liking the PowerPoint presentation better than the Prezi. Though it did not receive rave reviews, the general feeling was that they got more information out of it. Whether they paid more attention to me, the presenter, or were able to follow along better with the text on the slides, more information was absorbed and understood. Another criticism of Prezi had to do with the images. One participant in the group even called it “cartoonish.”

Finally, the group was asked if they thought either tool was better for presentations than the other. The general consensus of the group was that neither was necessarily better, but depended on the purpose you were using it for. For example, one participant commented that Prezi was better for designers and had more of a graphic design focus. The rest of the participants agreed that Prezi made for fun design, but when it comes to presenting serious information PowerPoint is better.

## Findings

After reviewing the survey results and comparing them to the focus group results, several trends seemed to emerge.

Familiarity, pertaining to usability and HCD, did have an effect on how the audience reacted to the presentations. Those unfamiliar with Prezi, whether their reaction to the zooming was positive or negative, were ultimately distracted by it. The audience familiarity to Prezi, in most situations, cannot be determined ahead of time. For the purpose of a one-time presentation needed to motivate people to give, presenters want their audience focused on the message, not distracted.

Perceptible information as defined by the Institute for Human Centered Design maintains that “The design communicates necessary information effectively to the user regardless of ambient conditions or the user’s sensory abilities,” (“Principles of Universal Design” 2011). Results from both the survey and focus groups show that the Prezi was better in visual design, but sometimes lacked the in the area of text and content. PowerPoint results from the groups showed that where it lacked visual design, it made up for with information and content. Though each presentation contained the same information, it seemed to be more recognizable in the

PowerPoint presentation. Based on comments made it could be assumed that the more text that is used in a presentation gives the impression of more information. Or that may just be how it is perceived by the audience. Therefore, regardless of presentation tool, it is best to include images, video and text so as to reinforce the perceptible information.

Finally, the presentation has to be flexible to meet the needs of many. Flexibility is another characteristic of HCD as determined by the Institute for Human Centered Design. A presentation should accommodate a wide range of individual preferences. (“Principles of Universal Design” 2011). Information itself can only do so much to hold an audience’s attention. Without their attention, there is no motivation. Both presentations were lacking in visual design for the specific purpose of making the focus about information. It was clear from the results that the audience wanted more along the lines of dynamic visuals and robust transitions. As a result, the information was still understood by most, but possibly not enough to get anyone to take action. In order to meet the goals set forth by this project, each presentation would need a more balanced design, incorporating both information design and visual/graphic design.

A more clear presentation of findings regarding how Aspects of Prezi and PowerPoint relate to principles of HCD, Table 2 and Table 3 are provided below.

## Audience response to Prezi regarding Principles of Human Centered Design (HCD)

HCD Principles	Sample Positive	#	Sample Neutral	#	Sample Negative	#
Coherence- meaning and information must be evident and transparent	"Focusing in on certain text and graphics made the information stand out."	1	"I would suggest more written information than just visual."	2	"Prezi was less factual and somewhat confusing"	4
Inclusiveness- inviting and create a sense of feeling part of a community	"The pictures and visuals gave the presentation the emotional connection necessary from the audience."	2	"Include testimonials from clients."	1	"Actual pictures of the dogs and your facilities would make it more meaningful."	3
Malleability- shape the environment to suit the user's needs/tastes	"I liked that it was more visual and had more graphics than text content"	2	"Transitions could be cleaned up to be smoother."	2	"More could be added to increase the visual appeal."	5
Engagement- draw the user in to participate	"I was interested the whole time, kept me intrigued & listening."	3	"I think Prezi allowed you as a presenter to make a few extra comments to the audience."	2	"Too much zooming, it distracted me from the information."	3

Table 2 The information shown in this table represents the opinions of 35 students that participated in the survey and focus groups in response to the Prezi presentation created for this study. In the "sample positive," "sample neutral" and "sample negative" columns are quotes taken from participant comments that represent general opinions of the groups. 43% of all comments were negative while just 23% were positive.

For the Prezi table there is a difference in the number of responses when compared to the PowerPoint table. The last part of the survey asked students to comment on what they thought needed to be changed or added in order to enhance the presentation to make it more meaningful to them or others. Twelve out of 35 participants, or 34%, wrote "nothing" or left the question completely blank. This could indicate several things: 1) They really liked the presentation and genuinely thought it did not need any changes, 2) They were not interested enough to make an effort to offer any changes, or 3) They could have been too distracted by the "zooming" to have paid attention.

From the participants that responded in the survey comment section, the results show weakness in specific areas of HCD. Although the same information was used in both presentations, 11% of participants commented that there was not as much information being

shared in the Prezi. A main concern was that there was so little text and mostly images and video.

In the area of inclusiveness there were comments very specific to seeing more pictures of the guide dogs, the facility and the trainers. In fact, 11% of the comments indicated wanting to be more connected to the organization by putting a face to it. Video of clients did receive good feedback.

About 20% of comments from participants focused on the design of the presentation, specifically color, use of images and framing of images. Nearly 9% of participants that had used Prezi before had several tips on framing images better so as to not cut off any part of the picture, video or visible frame. Just 5% enjoyed the fact that the presentation was nearly all images and very little text. There were no comments regarding the non-linear aspect of Prezi, or its large canvas of information, two qualities that distinguish Prezi from PowerPoint. Just as with the PowerPoint, the responses to how engaging the presentation was were evenly split among the group. Most of this had to do with how participants reacted to the zooming. Nearly 9% found it to be captivating and hold their interest throughout the presentation. Another 9% thought it was too distracting and even confusing. A common complaint about Prezi from other sources pertains to the zooming. “All the whizzing might be distracting for someone who wants to get a message across,” (Adria, 2009 par. 2).

## Audience response to PowerPoint regarding Principles of Human Centered Design (HCD)

HCD Principles	Sample Positive	#	Sample Neutral	#	Sample Negative	#
Coherence- meaning and information must be evident and transparent	"I felt that there was more information provided in the PowerPoint presentation."	4	"Could have been more creative, but information was clear."	4	"There needs to be more information about how the organization started, history, trainers."	8
Inclusiveness- inviting and create a sense of feeling part of a community	"I think adding a more personal aspect. . .what you do personally."	3	"Include 'what if' situations to make the audience mentally interact."	3	"I found myself zoning out a lot."	6
Malleability- shape the environment to suit the user's needs/tastes	"Different transitions between slides indicate slide changes better."	4	"It was very linear and boring at times."	2	"Needs more life to the transitions and more appealing design."	9
Engagement- draw the user in to participate	"In PowerPoint the visuals seem to work better."	6	"I was tuned in better in the beginning. . .I was not distracted by the transitions."	3	"The food, travel and supply visuals were not as well done as in the Prezi."	7

Table 3 The information shown in this table represents the opinions of 35 students that participated in the survey and focus groups in response to the PowerPoint presentation created for this study. In the "sample positive," "sample neutral" and "sample negative" columns are quotes taken from participant comments that represent general opinions of the groups. From all of the comments made, 61% were negative and 30% fell into the positive category.

The table shows specific areas of human centered design in which the participant reactions to the PowerPoint were stronger than others. In the area of coherence, responses indicate that information was provided clearly. In fact 23% of participants were interested in knowing more about the organization. This could indicate that a question/answer period following the presentation would be beneficial to the audience. Inclusiveness was an important indicator in this study. Ultimately, the presentation is supposed to move people to action, to donate to the organization. About 34% of the audience did not feel part of the bigger picture. Participants did give helpful suggestions as to how the presentation could be more inclusive, such as interacting with the audience during the presentation.

Though malleability applies mostly to the user, for the purpose of this study, "user" was replaced with "audience." For this characteristic of HCD, it was important to look at the

audience likes and dislikes in order to meet their needs for the presentation. The table indicates that the design of the presentation is important for an audience. 57% of the comments touched on color scheme, slide backgrounds, transitions and animations. While it is important that information stands out, according to the participants' comments, design is important. As discussed earlier, PowerPoint offers seemingly endless possibilities when it comes to slide design. "Multiple colors are used for the text, graphics and backgrounds of the slides..." (Daniels, 1999, p. 44). Other comments were made about the predictable linear outline of PowerPoint. Some called it "boring," referring to how the presentation was just one slide after another.

The engagement section of the table was nearly evenly split on the positive and negative sides. 17% thought it held their attention better because they were focused on one thing. Also, they were able to read the text while looking at an image or video. One of the distinctions, referred to previously, that PowerPoint has over Prezi is the ability to print hand-outs for the audience to follow along with and take notes on. This could potentially be an opportunity to increase engagement. 20% thought that it was not visually exciting enough. Some found the use of the same images in Prezi to be more dynamic.

## Conclusion

This project sought out to find what presentation tool works better to motivate and inform an audience according to principles of Human Centered Design. From the findings of the research, it could be concluded that PowerPoint is better at providing information, while Prezi is more of a fun design tool. However, this does not necessarily prove that one tool is better than the other. The motivation does not necessarily stem from understanding the information. Many

of the respondents' comments pointed to both presentations needing better visual design in the realm of color schemes, backgrounds etc. Therefore, it is clear that graphic and visual design play an important role for an audience in addition to how the information is presented. While much of the information was clear and understood in both presentations, without careful consideration of visual design, the information could be considered less interesting and, though I hate to say it, boring.

Overall, for the purposes of this project, PowerPoint wins this one. Prezi, although new and exciting, just does not seem right for the job. A main obstacle to overcome with Prezi is the familiarity most people have with it. Even in a communications class at SUNYIT, very few students had been introduced to it. Therefore, it would be easy to assume that most of the general public has never seen nor used Prezi. With the results from the data showing that familiarity plays a role in acceptance, it is safe to say that, at least for now, PowerPoint is the better tool for this job.

Keeping the importance of visual design in mind, open to further study would be the threshold in which visual design crosses over from engaging to distracting. Both tools provide the user with the opportunity for multiple design and animation options. However, the zooming capability of Prezi, which I thought would be an exciting new method of engagement, in most cases turned out to be a distraction. The same could be said for presenters that use too many animation affects and whirling transitions in a PowerPoint. But where is that fine line between dynamic and over the top? With the emergence of information design and human centered design, graphic design can sometimes fall to the wayside. However, it can be just as important when used the right way for the right purpose.

## References

- Anderson, R. (2004, June). Beyond PowerPoint: Building a New Classroom Presenter. *Syllabus*, 31-33.
- Bernhardt, B. (2006). Presentations that Keep Your Audience Interested and Awake. *The Haworth Information Press*, 50, 315-318.
- Collura, M. (n.d.). Human-computer interaction and main principles to design practice Human centered system. (Unpublished Doctoral Dissertation). Universita della Calabria, Cosenza, Italy.
- Cooley, M. (2000). Human Centered Design. In R. Jacobson (Eds.), *Information Design* (59-81). Cambridge, MA: The MIT Press.
- Craig, R. J., & Amernic, J. H. (2006). PowerPoint Presentation Technology and the Dynamics of Teaching. *Innovative Higher Education*, 31, 147-160. Doi: 10.1007/s10755-006-9017-5
- Daniels, L. (1999). Introducing Technology in the Classroom: PowerPoint as a First Step. *Journal of Computing in Higher Education*, 10 (2), 42-56.
- Harris, S. (2004). The Point of Thought? *Government Executive*, Sept. 50-56.
- Haubrich, C. (2010, June 30). Nonprofit Messaging: Keys to reaching your audience. Retrieved from:  
<http://www.philanthropyjournal.org/resources/marketingcommunications/nonprofit-messaging-keys-reaching-your-audience>
- “Institute for Human Centered Design,” n.d.,  
<http://www.adaptiveenvironments.org/index.php?option=Content&Itemid=25>
- Jacobson, R. (2000). *Information Design*. Cambridge, MA: The MIT Press.
- L. Leimbach. (2010, November 9). Prezi. Just Plain Good for Content. [ Web log comment]. Retrieved from: <http://rsu2teachertech.wordpress.com/2010/11/09/prezi-just-plain-good-for-content/> (2010, November 29).
- T. Leberecht. (2009, August 23). Power to Prezi. [web log comment]. Retrieved from <http://chronicle.com/blogs/profhacker/challenging-the-presentation-paradigm-prezi/22646>
- Lorang, T. (2010, March 22). Prezi versus PowerPoint. [web log comment]. Retrieved from <http://imagemediapartners.blogspot.com/2010/03/prezi-versus-powerpoint.html>

- Merriam, S. (2009). *Qualitative Research: A Guide to Design and Implementation*. San Francisco, CA: Jossey-Bass.
- Miltenoff, P., & Rodgers, J. (2003). Teaching with Technology: Multimedia and interactivity in social science education. *Multimedia Schools*, 10 (2), 34-36.
- O. Adria (2009, April 13). Prezi Review: More than Buzz? [Web Log comment] Retrieved from <http://www.rethinkpresentations.com/prezi-review-more-than-buzz/>
- Paradi, D. (2003). Summary of the Annoying PowerPoint Survey. Retrieved from <http://www.communicateusingtechnology.com/pptresults.htm>
- PowerPoint (2000). Teaching with Technology. Retrieved from <http://www.oid.ucla.edu/fnmc>
- Shedroff, N. (1994). *Information Interaction Design: A Unified Theory of Design*. Vivid Studios. Retrieved from <http://www.vivid.com/form/unified/unified.html>
- Shepherd, C. (2009). Standalone slideshows. *E. learning Age*, 10.
- R. Swanwick (2009, October 19). Prezi Presentation Tool. [web log comment] Retrieved from <http://swanthinks.wordpress.com/2009/10/19/prezi-presentation-tool/>
- Stone, R. J. (2001). *Virtual Reality in the Real World: A personal reflection on 12 years of human-centered endeavor*. ICAT, December 5-7.
- Tax Exempt World (2011). Oneida County, NY Tax Exempt and Non-Profit Organizations. Retrieved from <http://www.taxexemptworld.com/organizations/oneida-county-ny-new-york.asp>
- Tufte, E. (2003, September). Power Corrupts. PowerPoint Corrupts Absolutely. *WIRED*, 11, Retrieved from <http://www.wired.com/wired/archive/11.09/ppt2.html>
- Watrall, E. (2009). Challenging the Presentation Paradigm: Prezi. *The Chronicle of Higher Education*, Retrieved from <http://chronicle.com/blogs/profhacker/challenging-the-presentation-paradigm-prezi/22646>
- Wiesenfelder, H. (2010). What Are the Benefits of Focus Groups? Retrieved from: [http://www.ehow.com/about\\_5042427\\_benefits-focus-groups.html](http://www.ehow.com/about_5042427_benefits-focus-groups.html)

## Appendix I: Survey Questions

1. Aside from this presentation, how familiar are you with Prezi/PowerPoint?

- I am not familiar with it at all
- I have used it to present with
- I have seen a presentation using this tool
- I have both used it to present and have seen someone use it to present

2. On a scale of 1-5, 5 being great and 1 being poor, rate the following attributes of the presentation:

Visual design	1	2	3	4	5
Animation/transitions	1	2	3	4	5
Information/content	1	2	3	4	5
Multimedia (video/links)	1	2	3	4	5

3. How would you describe the flow of information based on how it was presented?

- The information was in an order that made sense and flowed smoothly
- The information made sense, but did not flow smoothly from one thing to the next
- The information was disorganized and jumped from one thing to another

4. Which statement best describes your understanding of the content?

- I understood everything and I have no questions
- I understood most of the information but I have questions
- I didn't understand the information and I have questions
- I didn't understand anything and I don't have any questions

5. On a scale of 1-5, 5 being very good and 1 being poor, how would you rate the overall presentation?

1      2      3      4      5

6. What would you add to the presentation in order to enhance it or make it more meaningful to you or others?

## Appendix II: Survey Results

### Group 1 PowerPoint Results

Number of students surveyed: 18

Familiarity: 94% have seen and used it

Attributes:	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Visual	0%	11%	55%	17%	17%
Animation	11%	22%	33%	22%	11%
Info/Content	0%	0%	33%	39%	28%
Multimedia	6%	11%	22%	33%	28%

Flow of Information: 100% thought the information made sense and flowed smoothly from slide to slide

Understanding of Information:

61% understood all the information and had no questions

39% understood most information *and* had questions

Overall Presentation:	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
	0%	6%	22%	44%	28%

## Group 1 Prezi Results

Number of students surveyed: 18

### Familiarity:

61% have never seen or used Prezi

22% have just seen someone else present with it

17% have both used it and seen it used to present with

Attributes:	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Visual	0%	0%	11%	39%	50%
Animation	0%	0%	11%	28%	61%
Info/Content	0%	6%	28%	22%	44%
Multimedia	0%	0%	33%	33%	33%

### Flow of Information:

89% thought the information made sense and flowed smoothly

11% thought the information made sense, but did not flow smoothly

### Understanding of Information:

78% understood all the information and had no questions

22% understood most information *and* had questions

Overall Presentation:	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
	0%	0%	17%	22%	61%

## Group 2 PowerPoint Results

Number of students surveyed: 17

### Familiarity:

12% have only used a PowerPoint to present with but have never seen one

88% have both used it and seen it used to present with

Attributes:	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Visual	6%	29%	29%	18%	18%
Animation	29%	24%	18%	11%	18%
Info/Content	0%	0%	24%	52%	24%
Multimedia	0%	0%	53%	29%	18%

### Flow of Information:

82% thought the information made sense and flowed smoothly

18% thought the information made sense, but did not flow smoothly

### Understanding of Information:

76% understood all the information and had no questions

24% understood most information *and* had questions

Overall Presentation:	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
	0%	6%	52%	18%	24%

## Group 2 Prezi Results

Number of students surveyed: 17

### Familiarity:

71% have never seen or used a Prezi

29% have both used it and seen it used to present with

Attributes:	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Visual	0%	12%	24%	40%	24%
Animation	0%	12%	12%	24%	52%
Info/Content	0%	0%	24%	41%	35%
Multimedia	0%	0%	6%	65%	29%

### Flow of Information:

88% thought the information made sense and flowed smoothly

12% thought the information made sense, but did not flow smoothly

### Understanding of Information:

71% understood all the information and had no questions

29% understood most information *and* had questions

Overall Presentation:	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
	0%	0%	18%	53%	29%

## Appendix III: Focus Group Notes

I asked the group to raise their hand if they had ever used or seen a Prezi. 6 out of 8 students raised their hand.

I asked them to raise their hand if they ever used or have seen a PowerPoint. All 8 students raised their hand.

I then asked the students familiar with Prezi to describe their experience or what they thought of it.

A female participant began to say that she had to use it as a requirement for a class and make a presentation with it. She liked it but said it was hard to get used to how to use it and described the non-traditional interface as “weird.”

A male participant then spoke up and agreed saying, “There is definitely a learning curve to it.”

A different female said she thought it added creativeness to a presentation and she had fun “playing” with it.

A different male student who works for a major local corporation was focused on privacy issues of Prezi. He said although he would use it in a classroom setting, there is “no way” he would be able to use it for his work because he deals with a lot of confidential information. Prezi is an open-source, online software tool. “My bosses would flip.”

Students that were not familiar with Prezi had this to say:

A female student said that the transitions were nice and added that, “It seemed cleaner and more streamlined than PowerPoint.”

A male student thought that the zooming was distracting. He said although he enjoyed the zooming the first time he saw it, he was left reeling at what had just happened. “I was like, woah, we just went right into that house!” As a result, he missed a good portion of the information.

I then asked the participants to tell me which presentation they liked better and to explain why.

5 out of the 8 participants responded that they liked the Prezi better. Here is what those students had to say:

One female student said she liked that it was something different and that in itself held her attention more. “I wanted to see where it zoomed next.”

A different female liked the Prezi also, but felt like the information content was better in the PowerPoint. I asked her to be more specific and she talked about the text on the PowerPoint slides. I mentioned to her that the information in each presentation was nearly identical, just presented differently. She in-turn replied that “It probably felt that way because I could read the words, but in the Prezi there were mostly images.”

3 out of the 8 participants responded that they liked the PowerPoint better. Here is what those students had to say:

One female stated that even though she liked the zooming, she thought it was distracting and took away from the actual information being given. “I kinda got lost in it and missed some of the information.”

A male student said that he didn’t really pay much attention to the PowerPoint, but listened to me speak more.

Another male responded that he was “tuned in” more to the PowerPoint in the beginning, but didn’t really hold his attention long. “The information was only so interesting.”

The final question asked was: In your opinion, do you think either presentation tool is better than the other? Why or why not?

One male student spoke up right away saying, “I don’t think so, but Prezi is more for design I think.” Adding that PowerPoint is more for corporate type presentations where you have to show graphs and charts and such.

After this response, a lot of the students nodded or audibly expresses some kind of agreement.

The male student that works for the local company also stated that even if he were allowed to use Prezi, it might not be taken seriously. “These guys want factual information, not zooming colors and pictures.”

A female student agreed saying that important information could be undermined and might look too “cartoonish.”

Another female student felt that PowerPoint is also greatly affected by the person presenting it, adding, “As a presenter, you can almost rely totally on the cool zooming in Prezi and not worry about talking so much.”

Appendix IV: Prezi Presentation (Screenshot)



## Appendix V: PowerPoint Presentation (Thumbnails)



**Freedom  
GUIDE  
DOGS**

**Hometown  
Training™**

Bringing independence  
right to your door.

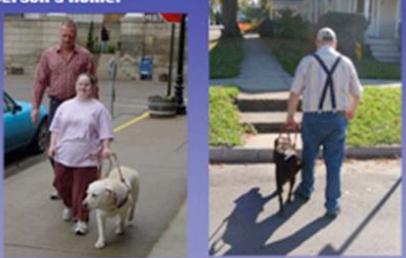
Freedom Guide Dogs is a non-profit organization that breeds, raises and trains guide dogs for the blind and visually impaired.



Traditional guide dog training is facility-based.



Through Hometown Training™ we are able to bring a trained guide dog right to the blind person's home.



Hometown Training meets the needs of those who are unable to travel.



"I have my hands full,  
so Freedom Guide Dogs  
was a perfect fit."

It can be customized to the personal needs of the student.



**Training takes place in a familiar, comfortable setting**

**This is all at no cost to the client.**

**FGD current funding**

FOOD	TRAVEL & PLACEMENT	SUPPLIES
100 lbs/week 	Gas, food, and hotel expenses 	Harnesses, crates, blankets, office & cleaning supplies, etc. 

**In the past two years we have doubled our number of guide dog placements**

**Freedom's vision is to continue to grow our staff, and increase the number of people we help.**

**Freedom Guide Dogs**