



Southwood Nature Preserve

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Students in Des 3131: User Experience in Design
On behalf of the City of North St. Paul



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Location

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North St. Paul



North St. Paul is a suburb of St. Paul that has a small-town feel to it. The current population estimate is 11,485 and has not significantly changed in the past 40 years, although growth is expected.; it wants to be known as an extraordinary small town in the cities. The city is one of traditional values with an attention to new technologies. North Saint Paul has over 125 years of history and maintains a tight-knit community, while keeping value in their relationships with larger region. There are local traditions that help shape culture. The car show is well loved and community events like Booya get attention from residents as well. When a team at Booya asked residents, many of the best loved features of North St. Paul were people oriented (the people, my family, friendly folks, good people.)

Resilient Communities Project

The city of North St. Paul is participating in a program called the Resilient Communities Project. In this program the city becomes a primary focus of a number of courses that take place at the University of Minnesota. North St. Paul has approached our team in finding a solution to improving the usability of Southwood Nature Preserve.



Southwood Nature Preserve



The Southwood Nature is the second largest open green space in North St. Paul, it is 39.7 acres of land. However, the preserve does not currently have a large presence within the city of North St. Paul. The preserve is located at the Southeast corner of North St. Paul. Its location on the border reduces the awareness of this beautiful nature preserve. Southwood has multiple entry points, some of which are more clearly defined than others. Many of the North St. Paul residents are unsure of the intended use of Southwood. Raising more awareness about Southwood and it's intended use could potentially lead to more involvement from the North St Paul residents. There are a number of volunteers (Master Naturalist) that are working hard to maintain the preserve and raise awareness of it.

Currently, there are school programs that use the space for educational lessons. Our proposal aims to improve the educational experience of the classes that visit the preserve.



Users



Primary Users

Teachers and Educators

Secondary Users

Students, Student's Peers, and Families

We chose to focus on teachers and educators that are in the local area. We understand that teachers have a great influence on their students, that is why they are our target users. With our product, we want to create a setting that gets teachers and students involved in learning about nature. We would like to use signage to facilitate these activities and learning opportunities.



Persona

Paula Miller

Age: 44

Occupation: Teaches 4th grade biology at Cowern Elementary School.

Education and background:

Grew up in North Saint Paul. She received her Bachelor's Degree in Elementary Education from Winona State University.

Likes:

Running with her dogs and other sports. She likes animals gives some of her time to volunteering at animal shelters. She enjoys spending time with her family and helping her kids with school. Her favorite musical genres include classical music and jazz.

Dislikes:

Kids with bad attitudes. When her house becomes messy. Having nothing to do.





Goals:

In her personal life, Paula is motivated by her family. Her love for them is what pushes her to work harder. She aims maintain a close and healthy relationship with her kids. At work, Paula wants to find activities that could educate her students and engage them in exciting ways.

Narrative:

Paula is a mother of 3 children, Peter, Adam and Sarah. She really enjoys being a mother and taking care of her children and their home. Paula also likes being involved with the North St. Paul community; that is why she decided to start teaching at Cowern, she wanted to make a difference in her community. Paula is always looking for new ways to engage her students and teach them new things. She has taken her class along with a master naturalist to do a few activities at the Southwood Nature Preserve. She would like to bring her class back to Southwood more often. However, she doesn't want to bring her students back to Southwood on her own because she is not confident enough to answer all of the questions her students have about the preserve. She also feels like she might run out of activities to do at the preserve.

Research & Prototypes



Site Study

The site was a little hard to navigate. At times our group members were unsure of which path to take and what kind of activities could occur in the site. There was a great amount of information about different species that were on site, but a lot of time was spent reading content that was a little beyond our understanding. The information displayed was useful but there was little information about how the users of southwood can get involved. `



We spent about 8 hours total on different days of the week and at different times of day at Southwood Nature Preserve, Casey Lake Park, and other locations in North St. Paul. While at the site, we carried out various direct and inconspicuous methods:

Contextual Inquiry: a direct method where we conducted interviews, questionnaires and surveys that reveal the use and culture within the site and contextual surroundings

Design ethnography: we inconspicuously studied the people of North Saint Paul in their natural settings. The method includes attentive looking and recording of people's behaviour, environments and events without any interruption by the observer.

Fly on the wall observation: Mind mapping: In this method, we compiled all the information we gathered from observing the space.



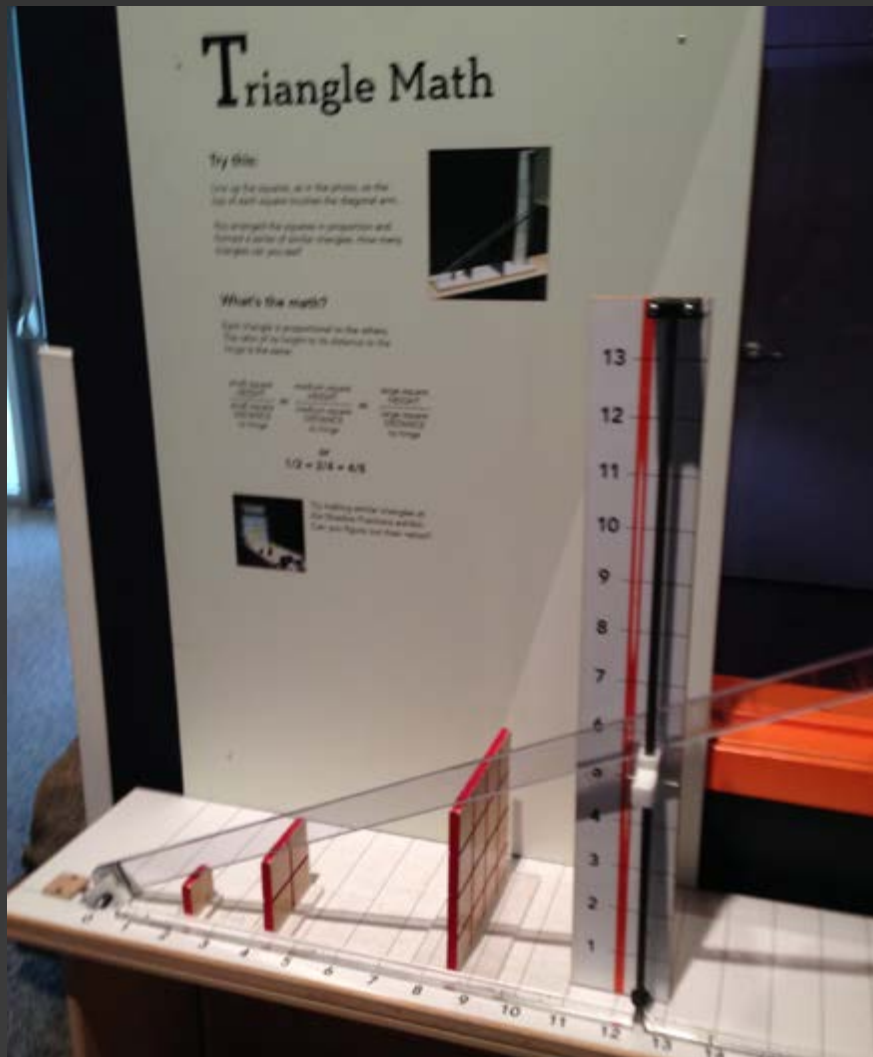
Research & Prototypes



Science Museum of Minnesota

Our group visited the science museum of minnesota because the signage there is very successful at engaging the children. It creates interesting ways of conveying information through activities and scientific facts. We conducted fly on the wall observations and observed the children to see what interested and engaged them.

Our visit helped us realize the importance of signage in educational public spaces. The personality of the Museum is based off of the signage it uses. It creates a unique experience for the visitors and gives a sense of how to use the space.



Research & Prototypes



Jane and her students see a beautiful plant and are unsure of what it is.



She take a picture of the plant with her phone and uploads it to an app.



The phone app identifies the plant and that it is extremely rare. It also gives the class activities to do to help them learn more about the plant.

Speed Dating

This process allowed us to present a number of ideas in a very short period of time. The feedback allowed us to learn a lot more about different programs that exist and what has been done previously. This exercise also allowed us to creatively think beyond the issue and about the endless possibilities and potentials of our project. The feedback we received encouraged us to further pursue either a system focused on signage or a long term project within the schools that would get the students involved with the preserve.



The class is on a field trip. Josie asks if squirrels hibernate and the teacher is unsure of the answer.



Jane takes out a key that reveals the information on a hidden banner.



The banner shares the answer along with more information about squirrels. The banner also suggests activities that can be done to help the students learn more about squirrels.

Research & Prototypes

Final Prototyping

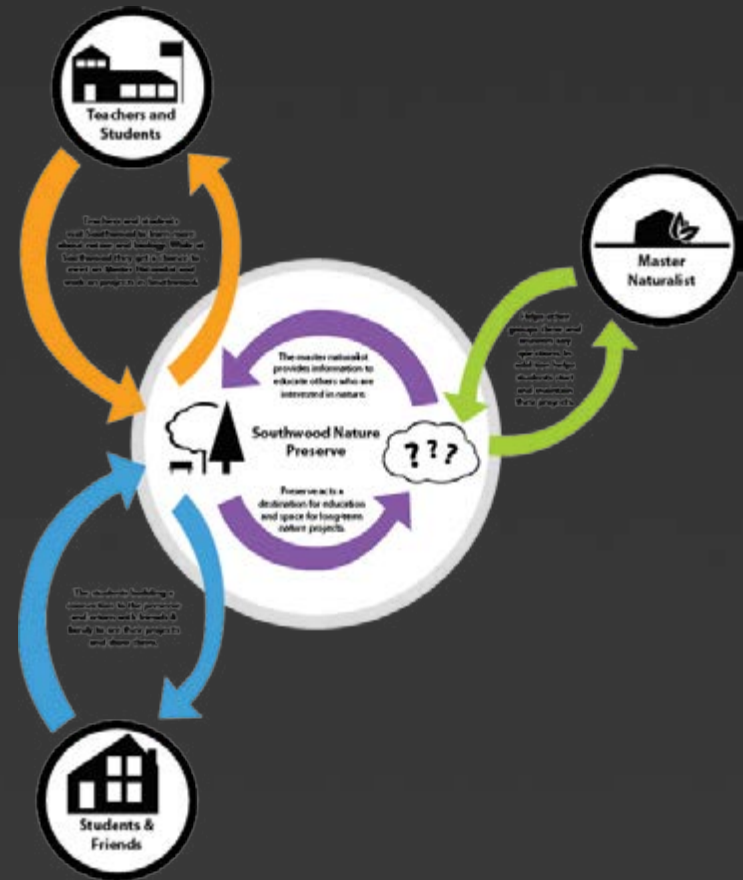
After doing the different studies we compiled our finds into two systems that could work.

Long term project and teaching outside of class room.

Paula is a grade 3 teacher. Before she introduces her students to the nature project they will be doing. The students are confused about what southwood is but are excited to work on a project.

They go on field trips to Southwood with a master naturalist and their teacher to learn about how they are helping the preserve. They start working on their project and the master naturalists are there for guidance. After a few a few visits they begin to see their progress.

After the project is over is students are very proud of their achievement. they ask their parents to go back to the preserve and see their work. this also keeps southwood as an important memory of their childhood. As they grow older they will want to bring their own children to be involved with southwood.



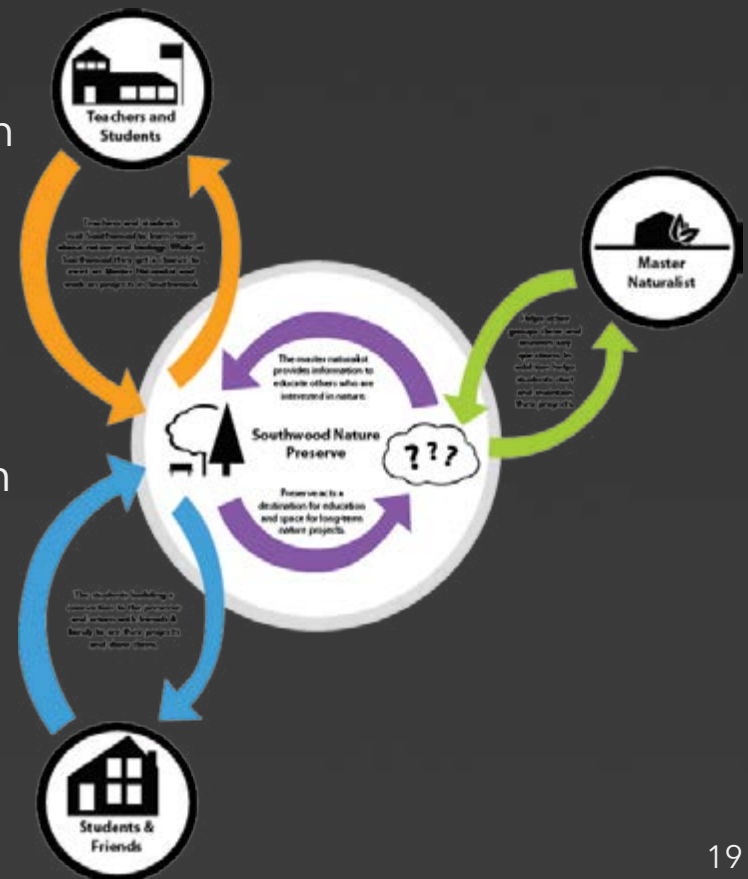


Educational and interactive signage that allows interaction with experts systems & gets people there and to return.

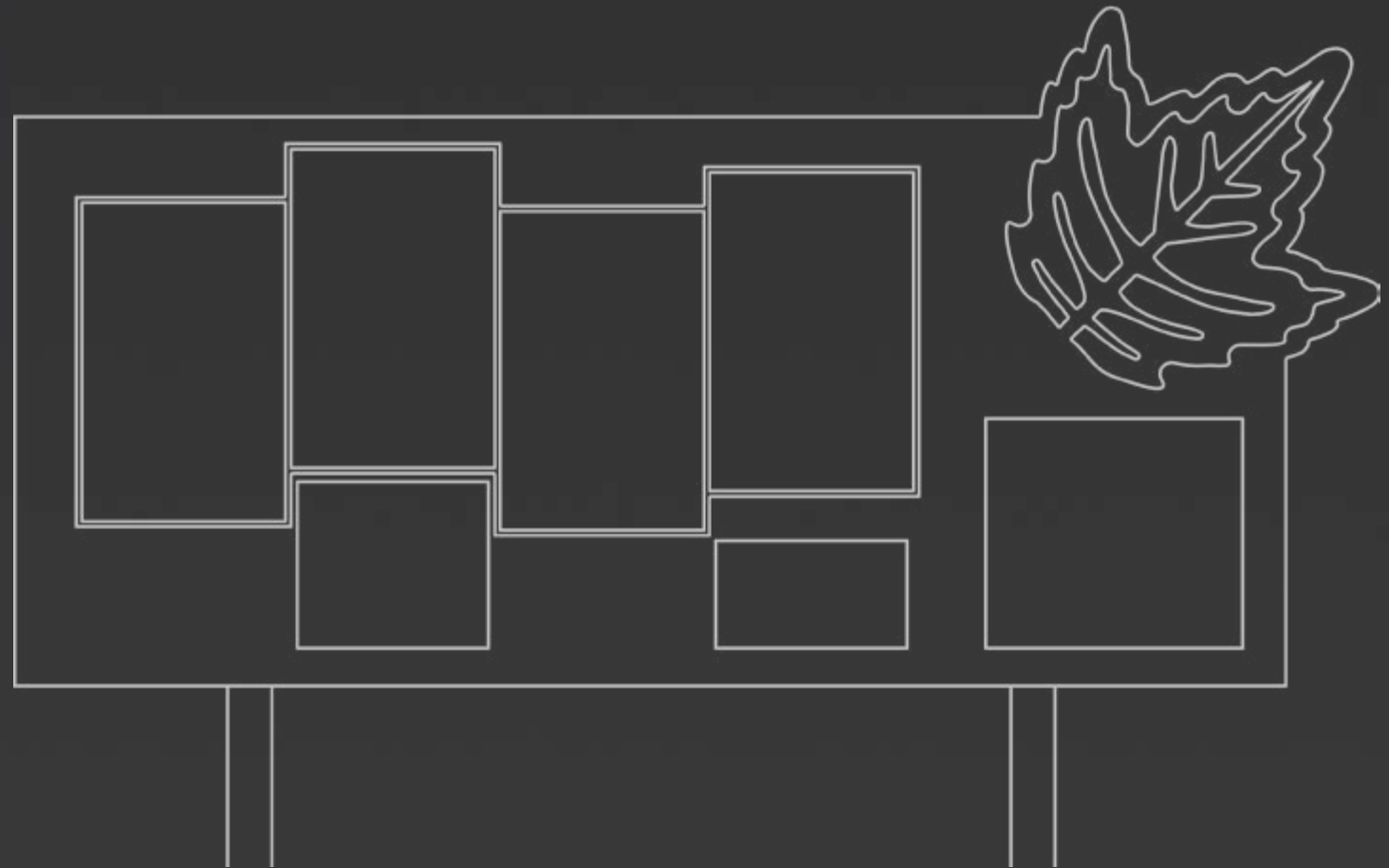
Paula is looking for a good way to teach her students about nature. She has heard about the new interactive signage at southwood. When Paula and her students are at southwood they interact signs that include information about the species they see and activities they can do to learn more about the plants and animals. When a student has questions, the interactive signs encourage them to post these questions and receive feedback.

Paula enjoys the activities and her students gain valuable experiences. Visiting southwood is something they may do again in the future. Her students are excited about the activities they did. The students return to do more activities with their friends and parents.

After explaining the two systems to clients, then we say we decided to move further with our findings.



Final Product

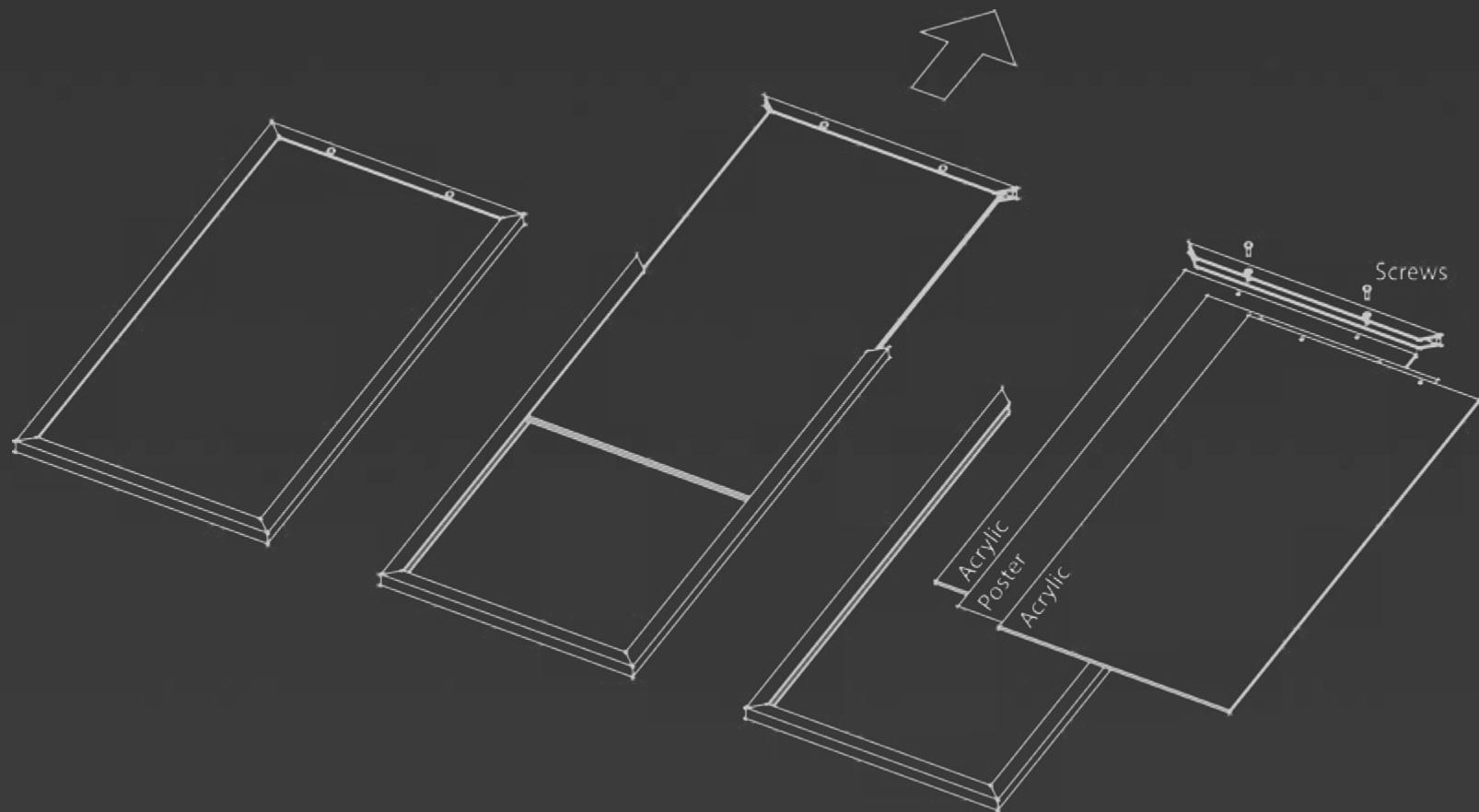


The result of these careful analysis and prototyping was this simple signage that reaches out to teachers and students. Our reason for taking this approach is to reduce the amount of resources being used while increasing the opportunity for involvement. This approach could eventually be Southwood's key to reaching out and attracting future generations.



Components

The signage was developed to be easy to use and replaceable over time. We know that signage often becomes out of date and takes game damage over time. Our product is made up of a multiple simple framed and acrylic that covers the poster. By developing a large quantity up front it will be cheaper and easier to replace individual parts when it is needed on site.



Template



With the development of our product we started to a deep look at how the information on the board would be displayed. We decided to simplify the process by putting together a template, that the master naturalist can use when updating information. The layout of the template is to put information for younger kids on the bottom and as the age increases towards the top.



Sections

The sign includes specific sections that are put into improve the experience for both the educators and students.

Activities

The activities section is developed to help the users better understand the space and how it can be used. It will encourage learning and education through different activities throughout the nature preserve.

Question & Answers

This section is a way for anyone to interact with the master naturalist and learn more about the different habitats and speices of the nature preserve. There will always be an answer posted, that usually expands further on the topic of the question providing the master naturalist to talk about interesting things happening at the nature perserve and in their studies.

Master Naturalist

This section is curcial to make helping educate others on what the goals of the master naturalist are and how others might be able to be a part of this goal. This will also help the master naturalist develop and identy in the community of the Southwood Nature Preserve.

Location



■ Locations of the major signs

We strategically placed the signage in four different locations throughout the nature preserve to increase the visibility of the park from the outside and improve the navigation through the preserve.

Conclusion

We believe our signage will not only give Southwood its own personality, but will also make it easier for visitors to understand how the space should be used. The signs will also enhance the educational experience of young students who visit the preserve.

As our evolution process revealed, teachers value the importance of their students to be more engaged with nature and the outdoors and hope to find more opportunities for their students to learn in this way.





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