Introduction

The civic engagement project our group is participating in deals with the environmental sustainability in schools of the Edgewater community. One may question how the education system plays a role in the sustainability of Chicago and this is a legitimate question. As the Edgewater Community Council had stated, "…education can build a sense of common values and shared purpose", and this allows for schools to send a unified message on the need to protect the environment.[1] If sustainability education was taught and practiced in the Edgewater community, the potential for students to apply what they have learned is much greater. In doing so, as the community is able to share and practice these common values, they would be a leading example for the city of Chicago. Even though the Edgewater community desires to place their primary focus on climate change, the fundamental basics need to be understood first.

Our area of interest focused on the differences in sustainability efforts made between public and private schools. We focused on two schools, Northside Catholic Academy (private) and Swift Specialty School (public), and from the examination of both schools we were able to identify contributing factors to sustainability efforts. As told to us by Principal Harlee Till of Swift Specialty, the school is a reflection of the community's diversity. Nearly 90% of the students come from families that are near the poverty line and depend on many of the school's services (i.e. transportation and food), and because of this, the school depends heavily on the city's financial support. Similarly, Leigh Holzman of Northside Catholic Academy informed us that the school's funding came from the local parish, which also supported many of the other neighboring schools and had limited means to support specific areas such as environmental sustainability. The 2008 CPS Environmental Action Plan claims that it is a top priority to provide schools with financial incentives to create a more sustainable environments, and in spite of the fact that this is still 'in progress', schools struggle to find aid from their financial sources. Although the communities are close-knit, these economic and cultural differences between parents and educators cause problems in developing proper support groups (i.e. PTA) to develop sustainability education in the school system. In the ECC's discussion on their focus in primary schools they write, "…early education is critical to preserving the health of the Edgewater community for years to come. In addition, their education often compels their parents to act out of empathy and interest in preserving their legacy." [2] With the aid of the Edgewater community and the practice of this statement, sustainability in schools could in fact be transformed

Methods

For both schools, Swift and Northside, we had administrative personal give us a tour of their school. Leigh Holzman gave us a tour of Northside and Principal Harlee Till gave us a tour of Swift Elementary. Our group observed and asked questions to evaluate the status of the school. We also interviewed each of the administrators their opinion of the state of the school and what they would like to see be done in terms of environmental upgrades. We distributed our surveys to administration officials when we visited each school and received email addresses of teachers who were interested in starting environmental programs. We asked the officials of each school to

foreword the survey to all faculty and staff, but we only received one response from Principal Harlee Till.

Results

Northside Catholic Academy

Observation (tours & individual observation):

Cafeteria:

We started out in their cafeteria. It is a very unconventional cafeteria; it only had some tables, a large refrigerator and a small kitchen space with a sink. They do not provide a hot lunch nor do they have a cafeteria staff. Most students bring their lunch. For those that do not bring their lunch, they have some refrigerated food to service them. The lunches come in plastic containers with a recycle 6 symbol on them. Some are also served in aluminum containers. None of us could identify what the food was. Some positives aspects we noticed about the cafeteria were the fact that they do not have a dishwasher therefore they save water. However, this does open the door for more waste since they do not wash or reuse containers. Northside does not allow their students to bring pop to school, so that does cut down on aluminum being thrown away. They also do not have vending machines.

Indoor space:

Northside was built in the 1880s, so it is a very old school. They mainly have radiator heat and it does not have air conditioning. They do have florescent lighting, but no where in the entire school do they have any sort of recycling program. Leigh Holzman told us they have been trying to get Blue Bins at Northside for years, but the city has been no help in trying to get that program started there. Around Earth Day, the school does do a “paper drive” in honor of Earth Day.

Outdoor space:

There is no green space at Northside. The playground is a combination of two parking lots and a street that is blocked off during recess. There is a small playscape for the preschool in the back of the adjacent building for the preschool but is not open to the public.

Transportation:

Northside has 448 students from preschool through 5^{th} grade. They own their own bus and it is usually full for every trip. It does a trip in the morning and two trips in the afternoon. Most students walk to school because they come from the surrounding area.

Interview with Leigh Holzman:

We asked Leigh to give us a better idea of the type of community and parent involvement Northside had. She explained to us that they do not have a strong PTA, but they have a very

close knit community. The school is affiliated with a Catholic parish and Northside is the main parish for the 5 related Catholic schools in the area. There is no environmental education taught in their curriculum nor do they actively participate in environmentally friendly activities. She did give us the names of 2 teachers, Gail Smith and Carolyn Baekis, who are interested in starting an environmental group at Northside, but neither teacher replied to our emails.

Swift Specialty School

Observations (tour & individual observations):

Cafeteria:

Swift has a very large cafeteria with a full staff who cooks and cleans the area. They make three meals a day; breakfast, lunch, and a later afternoon snack for the after school program. Almost all the 790 students eat meals at Swift because it is free and 90 percent of the student's families are at poverty level and can not afford to bring a lunch. This allows little food to go to waste. They also have a very diverse group of students coming from many different backgrounds and religious beliefs, therefore they provide vegetarian and salad options for these students. As an additional food source Swift also has vending machines with snack food in the building.

Indoor space:

Swift is over 100 years old and they have an addition which is only 10 years old. In the older part of the building, they have radiator heat and no air conditioning. It also has a black tar floor throughout the main halls, but it is getting re-finished over the holiday break in December and January. The new addition to the school is state of the art. It has air conditioning and central heat, but nothing environmentally friendly that we noted. They are also currently renovating the pool with the approval of environmental health officials. It will be open to the community and has been inspected for safety and contaminants. Walking through the hall there were multiple blue bins located in classrooms and administrative offices.

Outdoor space:

The outdoor landscape was recently redone. They planted trees, redid the landscape, and added a new playground of the school and surrounding community. A lot of the playground is made from recycled rubber, but there is no grass; it is made out of Astroturf.

Transportation:

Swift has 4 buses; two are for the blended pre-K (specialized and regular pre-K). And the other two are for their CHOIC/Magnet school. Since Swift is a Chicago Public School, they participate in the No Child Left Behind (NCLB) legislation passed by the Bush Administration. Therefore, buses have to travel all over Chicago picking up students that have been accepted to attend Swift elementary instead of their local public school. Most of the students that do not take the bus live close enough to the school that they are able to walk.

Administrative/Education:

Because Swift is a Magnet school, they focus primarily on science and math. They have an extensive science storage room where teachers can come and find the supplies they need to do a science experiment or science textbooks that they need. It is usually stocked and teachers are very good about returning the objects that they borrow from the supply room. Sharing is a huge part of Swift. They have an extensive library storage area where the books and supplies the teachers need for their classrooms are located to be checked out. This way the school does not have a buy each student a book and teachers can come and check them out and return them for another teacher to use. The room also contains all supplies teachers need. They can take as much as they want, but Principal Till reassured us that they only take what they need and not excessive amounts.

Recently, the Chicago Public School system is using an online system to record attendance so they can cut down on the amount of paper they are using. However, Swift does not have the funds to supply every teacher and classroom with a computer so most of the time, paper is actually used to record attendance and then taken down to the office and then an administrative personal inputs the attendance.

Other:

Also at Swift, the parents are not very involved with the school. Most parents are bribed to come to meetings with Dominick's gift cards, but still, very few show up. There is an after school science club lead by an 8th grade science teacher, but that is still in the beginning phases and is not very developed. Swift is also part of the Oprah Winfrey Angel Network and have done a few projects including picking up trash in the Edgewater neighborhood and putting together a healthy eating initiative.

Interview with Principal Harlee Till:

Principal Till is extremely passionate about Swift. She gave us a tour personally and was very open and honest when she answered her questions. Her biggest problem she faces is trying to manage the size of her school, the lack of city funding, and the economic state in the surrounding community. When we posed the question, "If you had sufficient amounts of money, what would do for the school environmentally?" she gave us the following suggestions: supply computers in every classroom so they could actually follow the reduction of paper initiative with taking attendance and update their library.

Discussion

The results we gathered indicates the lack of involvement the schools in the Edgewater community have with the environment. There were many surprises we encountered when touring the schools, mainly the lack of green space and recycling programs at Northside Academy. Since there is no secure playing area around the school, officials decided to resort to barricading the

street and parking lot in order to give the students room to play. This is not a safe alternative for the children and we are surprised that the parent and community do not take more initiative to provide a better environment around the school. Northside Academy blames Chicago for not responding to their requests for the blue bin recycling program. During our research we have discovered multiple programs in Chicago which focuses on helping schools reduce and recycle the waste they generate. If Northside was more interested in becoming involved they have the option to participate in grant programs, such as the Illinois Zero Waste Grant Program, where they can receive up to $10,000 in aid. The lack of involvement has the potential to create a trend of neglect of our environment to the students who are not learning the proper ways to care for our environment. The Edgewater community is also affected because its residents are becoming less educated about the ways to protect the environment.

Swift Specialty School is more environmentally conscious. Although they do not have a strict recycling program they have a few blue bins located throughout the school. They also have a green space available but it is small in relation to the size of the school. The playground turf is made from recycled tires, which is enclosed in an area with trees surrounding the perimeter of the school. We were surprised to learn of their library system, where all the teachers and students share books and supplies with one another throughout the school year. This cuts down on excessive use of paper, and makes every book more valuable. We were surprised to learn that their library facilities had such a strong book exchange program. When touring the school we noticed that there was a large variety of books ranging from math to environmental science. Instead of spending a lot of money on books, the school decided to cut their costs by buying a smaller amount and having the teachers correlate their teaching schedules so each classroom could use the same book in different rotations.

As stated before Swift's students are living at the poverty therefore, food is offered and rarely wasted. Many of the students take advantage of the hot lunch programs, and will eat all three meals available to them. It was also interesting to learn that Swift has reusable trays but they choose to only use them for breakfast. Other meals are served with Styrofoam containers for the rest of the day.

Although Swift does not receive any state funding, they are able to afford numerous flat screen televisions to be displayed in their hallways. These televisions do not serve any real purpose besides informing the students of the current date and school announcements for the day. This is not responsible money management, because the principal discussed with us how they do not have enough money to provide each classroom with computers for the students.

We do not know how Swift received funding for televisions, but it seems that if they manage their money more proficiently they would have more funds for possible environmental education. They have been resourceful in other aspects; mainly their participation with Oprah's Angels, which is a public charity that uses donations to award grants to organizations that are working towards improving education, developing leaders, creating communities, as well as protecting basic rights. The students contribute to this organization by going out into the

neighborhood to pick up trash and help improve their surroundings. Any amount of community involvement is beneficial to the Edgewater community.

The Edgewater community could benefit from more education about environmental sustainability in their schools. If children receive education about recycling and healthy green methods, then they can bring their education back to their family. Children have the power to influence their family about these important issues. Therefore the earlier children discover ways to help the environment the faster we, as a community, can improve the sustainability of our planet.

In order for Edgewater to improve the lack of education among the schools in the community, there needs to be more awareness of the many programs Chicago offers to schools in the city. The environmental Action Plan is the most recent proposal for schools to join in Fall 2009. The top priorities of this program are to recycle, save energy, and grow school gardens.

The Illinois environmental protection agency is an opportunity for Chicago schools to participate in. They have created a green schools program that incorporates eleven different areas that focus on the environment and making the schools a greener community. The first is the Clean School Bus Program, which the Illinois EPA provides technical and financial assistance to schools that discard older school buses and replaces them with cleaner models. Another program that both public and private schools can participate in is The Lake Education Assistance Program (LEAP). LEAP provides schools that apply a $500 grant that can be used to fund field trips that educate students about the local lakes and nearby nature. The program can grant up to $50,000 per year.

Another program in the Illinois environmental protection agency is the Green Youth Award. The program involves students to try to find environmentally friendly solutions to one of four categories; waste reduction, prevention or reduction of pollution in the air (climate change/global warming), land or water restoration, preservation or enhancement of natural areas; and energy or water efficiency. The student who wins is recognized among the environmental protection agency. The Illinois environmental protection agency also provides a checklist which schools can follow to make sure their school is doing everything that it can to be environmentally friendly. The checklist focuses on categories including Energy use, Solid waste generation, Indoor air quality, Pest management, Mold growth, Water consumption, Laboratory waste, Building renovation, and Purchasing. (http://www.epa.state.il.us/p2/green-schools/).

Another grant that is available throughout the Illinois region that target schools in their efforts to reduce waste is the Zero Waste Program. The Zero Waste School Grant Program's main purpose is to implement and expand recycling and waste reduction programs in public and non-public schools in the state of Illinois. Although the program realizes that it may not be completely possible to have the schools produce absolutely no waste, it is there goal to eliminate as much unnecessary waste as possible before entering landfills. This program is designed to encourage schools to move towards a new way of thinking about the environment and the importance of recycling.
Schools need to apply for the grant, which gives up to $10,000 depending on the applicant's proposal for their school's involvement in the project. If a school is accepted they have two years

to move towards turning their educational facility into a zero waste environment. In order to monitor the progress the school has to conduct a waste audit before and after the Zero Waste Program. It is also mandatory for every school to collect and recycle items such as food waste, white paper, mixed paper, junk mail, electronics, cardboard, chipboard, plastics, metals, glass, ink and laser cartridges, , milk cartons, and six pack plastic rings. In order to reduce as much waste as possible schools must agree to replace disposable plates and silverware with reusable utensils and plates, either eliminate or compost hand towels in bathrooms, implement the use of two sided printing or copying among the students and the staff, begin emailing announcements to teachers, participate in book exchanges, and recycle old books if the school chooses not to reuse them. The program goes very in depth about the requirements schools need to fulfill for the program and even addresses the yearly locker clean out made by students before they leave the school for the summer. Instead of having the students dispose of their old notebooks, and school supplies, staff would assist students to separating their garbage in order to ensure that nobody is wasting any reusable materials.

Although this seems to be a large amount of rules to follow, the Zero Waste Program will assist the schools involved in transforming their building to work with their requirements. The money that each school receives can spend the grant on necessary objects such as recycling containers. The money can also be used for scales, can crushers, reusable cafeteria equipment, and cloth towel dispensers for the bathrooms. This allows the participants to have easier access to fulfilling their requirements and have a “greener” school. The grant program also allows the participating schools to spend the money on equipment and materials for organic waste composting throughout the entire building. In order to increase awareness about the schools involvement in the program they also allow the money to go to promotional, educational, or outreach costs about the project.

The strict criterion is meant to help the Department of Commerce and Economics Opportunity, learn of the best ways to implement the program in a cost effective manner.

If schools were to take advantage of these programs they would be helping the environment as well as providing new educational techniques to their students.

This project would be more beneficial if we were able to speak to more than two schools. If we were able to contact the science teachers within Northside and Swift we would also have more insight on their opinions about how to create a more environmentally friendly school as well as their plans for the future. It would also be valuable to learn if these schools were aware of any of the programs Illinois provides for the schools in Chicago. If they were aware we could go into further detail about why each school chose not to apply for the grants.

Our advice to the future classes would be to create a survey designed for the students to test their level of knowledge about environmental issues. This would allow you to document what the children are actually learning and not what the administration is tells us what they are being

taught. Another promising source would be to contact and interview the leaders of grant programs such as Illinois Zero Waste Program, Illinois School Recycling and Waste Reduction Grant Program, and the Environmental Action Plan set to begin in the fall of 2009. (http://www.commerce.state.il.us/NR/rdonlyres/6616A58E-947F-44A9-A6B9-4B00360F3B11/0/Zero_Waste_RFA.pdf).

For the next group that decides to work with Edgewater schools, they should use our results and research and implement programs. For example, try and get a car pool started between faculty members or go to an elementary class and teach the students about the environment or do an activity with them about recycling or planting greenery.

If this sustainability project is able to influence some of the schools in their environmental practices and education then it would positively affect the Edgewater community because it would directly affect the residence in the neighborhood.

Conclusion

Our research question in the beginning of this project was very simple and this allowed room for expansion. Based on observations we made while visiting schools and on interviews, we hoped to understand what each school does to promote environmental sustainability. We also hoped to gain knowledge so that we could help the schools become more environmentally friendly. When doing our project we found many similarities and differences between Northside Catholic Academy and Swift Specialty. The schools do not have any programs dedicated to educating students about the environment, they do not have recycling programs, and in fact they do not recycle at all. Both schools create a lot of waste at lunch and they do not inform their children about what they can do to help the environment. However, since about 90 percent of the students eat the hot lunch the school provides, most of what is made gets eaten. But children are not allowed to take food out of the cafeteria, so whatever is not eaten is thrown away. Northside Catholic Academy basically has no green space for the students, whereas Swift Specialty has a playground (though it is Astroturf) and jungle gym. Swift also has planted greenery surrounding the school. Neither school makes use of Blue Bins (Swift does have them though they are not recycled). However, they do bus students to and from their schools daily. Finally, the schools do not have much parental support for educating the students about the environment, or for curbing waste.

Our main objective for this project was to find out, through visiting the schools, how much work needs to be done in order to help make the schools more sustainable. We found that the answer to this is that the schools need a lot of work. The environment is not a main concern for Northside Catholic Academy or for Swift Specialty. The schools do not emphasize lessening their ecological footprint or encourage the students (or even the administration) to limit their

waste. In order to make Northside Catholic Academy and Swift Specialty more environmentally friendly the schools would need to take great measures.

First and foremost, the schools should call on the parents to aid them in environmental education. Parents could teach their children at home about what is and is not recyclable, how to create less waste, and how to understand their personal impact on the earth. Parent volunteers could help hold after school programs dedicated to teaching the students about the environment. Secondly, if the schools had a dedicated environmental committee, which could also include parents, they could make more of an effort to recycle. The committee could empty Blue Bins and create and manage an area in the schools' cafeterias where students could recycle empty bottles. The committee could place signs around the schools emphasizing environmental friendliness and recycling. It would even be effective to have students participate in this committee wherein they could learn about sustainability and perhaps teach their classes and share their knowledge. Lastly, there is a lack of funding for environmental education and programs at the schools. While suggesting that the government should fund such programs is obvious, it is not necessarily practical, considering governmental funding is difficult to come across. Fundraisers in the school or community or donations made by parents could be sources for funding for environmental programs. Perhaps if parents and the Edgewater community joined and petitioned for governmental funding, they could succeed.

There are also many programs that provide free environmental education for schools all over the U.S. For example, Planet Tree is an organization in California that visits schools and offers free assemblies for students in order to teach them about urban forests and their importance. Planet Tree teaches students from kindergarten ages to college age students who want to learn about the trees in their surrounding California area. They also provide free trees to communities; all it takes is a phone call. In the Midwest there is also The Environmental Action Plan which has recently developed. Its top priorities are to recycle, save energy, and grow school gardens. There is also the Adopt-an-Ecosystem Initiative that engages students and teachers in service learning projects. They team up with other organizations and learn how to restore and conserve critical urban green and waterway spaces throughout Chicago. Teachers attend workshops to learn more about the environment so that they can better teach their students and they use classroom curricula to prepare students and teach them about threats to the environment, including invasive species, development, pollution, and neglect (http://www.epa.gov/enviroed/grants/IL02.htm#NE833616010).

Our project is important for the Edgewater community because it shows them what the schools are teaching (or not teaching) the students about the environment. If the Edgewater community wishes to be one of the "greenest" communities they need to start with their children as early as possible. While Northside Catholic Academy does encourage their students to clean up the earth on Earth Day, this is by no means enough. It would be beneficial for the Edgewater community to join together and create programs and/or committees to send to schools to educate students and administration. In terms of future research, our project is a good baseline on which to

measure what schools will do in the future. Schools and the Edgewater community could learn what these schools have done and they will know what they have to work with in the future.