Tribal Community-Based Social Marketing (CBSM) Recycling Toolkit

This toolkit focuses on using the community-based social marketing (CBSM) process to promote recycling behavior, based on a **CBSM Case Study at the Fond du Lac Tribal and Community College (FDLTCC)**.

The toolkit includes example steps of how FDLTCC followed the CBSM process. It also includes a CBSM Strategy Tools Checklist specifically designed to suggest tactics to address barriers to recycling behavior. These toolkit components can be followed step-by-step and tailored towards your own CBSM efforts to promote recycling behaviors. The toolkit components can also be easily adapted to promote any other kinds of positive behaviors!

Toolkit components:

- **Case Study** – The case study provides a summary of how FDLTCC followed the CBSM process to increase the student recycling rate by 41% at the FDLTCC campus. The case study also describes lessons learned in implementing a CBSM project on a tribal college campus.

- **Example Research Plan** – An example of planning for how, where, and when to collect data from your target audience, e.g. online questionnaires, focus groups at community events, enlisting help from community leaders, student interns, etc.

- **Example Questionnaire –** This includes examples of open- and closed-ended questions to best obtain information on behavior barriers and benefits.

- **Example Observation Checklist** – An example of how to collect waste and recycling information by observing the behaviors of your target audience.

- **Example Data Analysis** – This example report shows how data collected can be analyzed to draw conclusions about barriers and benefits in order to recommend specific CBSM strategy tools to use.

- **Recycling CBSM Strategy Tools Checklist** – This checklist is tailored to suggest tactics for using CBSM tools specifically to address barriers to recycling behavior.

- **Example Pilot Implementation Plan –** This example shows how to outline the next steps to design your pilot project to test CBSM strategies that will address the specific barriers to your target audience, including project budget estimates. Piloting your project is crucial to identify any needs to adjust or improve the program before implementing a full CBSM program.

- **Example of Measuring Results** – This section includes pre- and post-pilot comparisons of the results from the FDLTCC student input to the questionnaire. The example poster shows how FDLTCC measured recycling behavior change by calculating the percentages of recyclables found in the trash at FDLTCC before and after the pilot project. It also shows how FDLTCC communicated these results through bar chart graphics.

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Case Study

Increasing Student Recycling at the Fond du Lac Tribal and Community College Campus

Tribes nationwide have multiple opportunities to improve sustainability in their communities through efforts to conserve resources, such as energy or water, or increase recycling and decrease waste generation. Using research, marketing tools, and community engagement, Community-Based Social Marketing (CBSM) can be an effective methodology to remove barriers to and increase sustainable behaviors.

The Fond du Lac Tribal and Community College (FDLTCC) in Cloquet, Minnesota has realized the benefits of a new recycling program put into effect in 2014. Using CBSM tools to implement a pilot recycling program, this resulted in a 41% decrease in the amount of recyclables found in the college's garbage after implementation of the pilot project. This case study summarizes how FDLTCC used CBSM to increase student recycling on campus and presents project results and lessons learned.

What is Community-Based Social Marketing?

CBSM uses marketing tools with research, best practices, and community engagement to more effectively change behaviors for the social good. CBSM projects generally consists of the following five steps:

Step 1: Select the behavior to be promoted
Step 2: Identify the barriers and benefits associated with the selected behavior
Step 3: Design a strategy that utilizes behavior-change tools to address those barriers and benefits
Step 4: Pilot the strategy with a small segment of the community
Step 5: Evaluate the impact of the program once it has been implemented broadly

How Did the Recycling Project at FDLTCC Work?

Step 1: Select the behavior to be promoted

The Fond du Lac Band of Lake Superior Chippewa Environmental Program teamed up with FDLTCC's Sustainability Program to identify a sustainable behavior to promote. FDLTCC held a focus group during the school's Sustainability Week to discuss environmental issues of most concern to the students. Most students were interested in improving the school's recycling program. FDLTCC chose to conduct a CBSM project targeting the students to increase recycling behavior on campus.

Step 2: Identify Barriers and Benefits of Recycling Using Focus Group, Questionnaire, and Waste Characterization

In April 2014, FDLTCC conducted a test pilot questionnaire with a few classes, in order to fine-tune the questions that would garner the most useful input on the ability to recycle on campus, barriers to recycling, and benefits of recycling on campus.. A month later FDLTCC sent a link for the refined web-based questionnaire to all students. A drawing for a gift certificate to the campus bookstore or deli was used as an incentive for completing the questionnaire. Student questionnaire responses showed:

- ✓ **Awareness:** Students have a high level of awareness of recycling options on campus, and most students have a desire to recycle. However, that awareness and desire does not translate to actual recycling. For example, paper is only always or usually recycled by 36% of the respondents.
- ✓ **Barriers:** Difficulties with recycling on campus included not enough recycling bins and not in the most effective locations, a need for improved recycling signage, and the belief that people don't care enough to put in the extra effort to recycle.
- ✓ **Benefits:** Students are aware of a wide variety of benefits to recycling, including resource conservation, waste reduction, reduced pollution, and money savings.

- ✓ **Next Steps:** Students suggested ways to improve recycling on campus that included posting more recycling signs; and adding recycling bins in classrooms, at entrances and hallways, outside the gymnasium and computer labs; and next to every garbage can.

Following the questionnaire, FDLTCC coordinated with its facility maintenance staff to set aside a week's full of garbage and conducted a waste characterization to determine how much and what recyclable items are actually put in the trash on campus. Then, the recyclables and trash were each weighed separately. Student workers also observed and recorded recycling behaviors in student areas to understand why materials such as paper were not being recycled and instead were placed in trash bins. The waste characterization and behavior observations showed:

- ✓ The highest percentage of recyclables in the trash was found in classrooms where no recycling bins were available (46%).
- ✓ The other areas with high percentages (over 20%) of recyclables in the trash were faculty, office, and common areas.
- ✓ Students found a significant amount of recyclables in the trash, mostly aluminum cans, plastic bottles, and paper.

Step 3: Develop the Pilot Project Strategy Using CBSM Tools

The questionnaire results showed a strong desire to participate in recycling on campus; however, the questionnaire and waste characterization showed barriers to recycling, such as forgetting to recycle, lack of recyclable bins and limited signage, may contribute to recyclable items being put in the trash. A pilot project was developed to overcome the barriers and increase recycling on campus using information obtained from the questionnaire as well as accepted best practices throughout university and college recycling programs. The pilot project utilized the following CBSM tools: prompts, effective communication, improved convenience, and social diffusion to encourage recycling and discourage placing recyclables in the trash. The pilot project allowed FDLTCC to evaluate the program, document the results, and determine whether the program could be successfully expanded throughout the campus to increase recycling rates.

Step 4: Implement the Pilot Project Strategy

Based on research results from Step 1, the following activities were implemented for the Pilot Project by using the prompt, communication, convenience, and social diffusion CBSM strategy tools:

- ✓ **Convenience:** Retrofitting existing trash cans with recycling lids and pairing them with trash cans to create new recycling stations in areas indicated by students in need of recycling options.

- ✓ **Prompt:** Increasing signage to draw attention to the new recycling locations.

- ✓ **Communication:** Preparing signage in English and Anishinaabe language; communicating about recycling during student orientation.

- ✓ **Convenience/Prompt:** Installing new recycling stations in classrooms and high-traffic areas.

- ✓ Using recycling bin styles favored by students in the questionnaire.

- ✓ Hiring a work-study student to (1) collect recyclables throughout the campus once per week for consolidation, (2) monitor recycling bin use, (3) resolve any issues; and (4) conduct **Social Diffusion** by championing the program to other students. Specifically, the student organized a dorm pizza party. In order to participate, students were required to bring in recyclables to the party, and the work-study student demonstrated how and where to recycle in the dorms.

Pilot Project Costs	
14-Quart Recycling Container	5 @ $15.95.....$79.75
Brute Recycling Bin Lids	40 @ $6.51..... $260.40
Ergo Can Two-Stream Recycling Station	10 @ $ 289.99..$2,899.90
Signage	12 @ 30 .....$360.00
TOTAL.....	$3,600.05

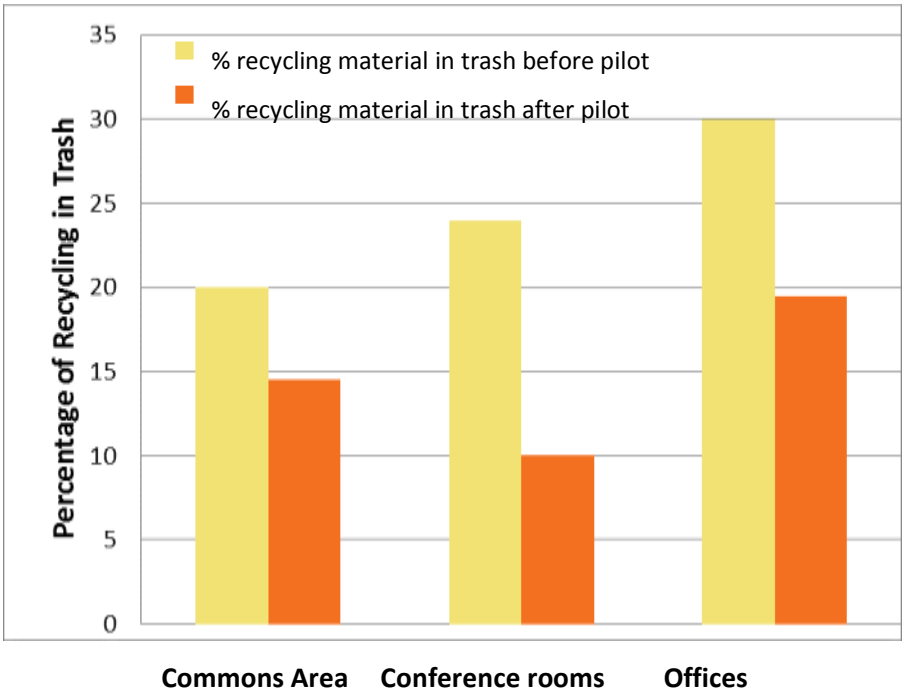
Based on research results, new bins were put in place by the end of August 2014, when students returned to campus. Signs were designed by art teachers and students, and were posted on environmentally-friendly canvas. The text box to the left shows the pilot project costs.

Step 5: Evaluate Pilot Project Results

In October 2014, FDLTCC sent a link for a web-based follow-up questionnaire asking for student input about the new recycling stations and signage and to identify the barriers and benefits to recycling on campus still perceived by students. Student questionnaire responses showed:

- ✓ **Awareness:** Students have a high level awareness of the new recycling stations and signage on campus and most students have a desire to recycle.
- ✓ **Barriers:** Some barriers expressed before the pilot project were resolved because additional recycling bins were put in strategic locations along with easy to understand visual signage that prompted them to recycle.
- ✓ **Benefits:** Students are aware of a wide variety of benefits to recycling, including resource conservation, waste reduction, reduced pollution, and cost savings.

A post-pilot waste characterization was conducted to determine the change in the amount of recycling material in the trash based on the pilot project. All three areas of the college showed significantly less recyclables in the trash after pilot project implementation. The overall average recycling rate for the three areas combined improved by 41 percent.



What Were the Keys to Using CBSM Tools for a Successful Recycling Program at FDLTCC?

- ✓ Build a strong partnership between the tribe and the college to increase available resources and project success.
- ✓ Use CBSM methods such as gaining student input through a questionnaire, applying appropriate CBSM strategy tools based on the results, and implementing a new pilot project before trying to implement an entire program.
- ✓ Use resources such as work-study if available, which allows students to champion the program (social diffusion).
- ✓ Find a sustainability project the whole campus will embrace and promote!

What are the Next Steps?

With student suggestions, FDLTCC will consider additional ways to improve recycling on campus including:

- ✓ **Social diffusion** providing additional public visibility about the recycling program and the improved recycling rates through social media and events.
- ✓ **Social diffusion** of information at student orientation and other special events on how and where to recycle on campus, including use of stickers and other materials.
- ✓ Monitoring which locations still may have less recycling activity, and place additional recycling bins in these locations.
- ✓ Exploring **incentives** to encourage recycling.

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Tribal Community-Based Social Marketing (CBSM) Recycling Toolkit

Example Research Plan

Purpose

The purpose of the project is to promote sustainable behaviors at the Fond du Lac Tribal and Community College related to solid waste management and recycling. Through the identification of barriers and benefits of recycling to the student population, a pilot project will be developed to help minimize the barriers and maximize the benefits. Overall research goals for the project include:

- Student demographic information
- Identify level of understanding of benefits of recycling
- Identify barriers to recycling on campus
- Identify methods and practices to increase recycling such as behavior changes, bin placement and signage
- Identify methods of student communication that achieve highest retention and impact

All research methods will be developed and implemented to achieve the research goals described above.

Methodology

Talking Session

A talking session was held with students during Sustainability Week in September 2013. The FdLTCC Environmental Institute Director and the University of Minnesota Extension Program American Indian Community Economics Facilitator led this session. Campus recycling was one significant priority identified by students. Specific comments made during this talking session about sustainability issues on campus included:

- ✓ More recycling areas with information on reducing waste
- ✓ More recycling bins in classrooms
- ✓ Add water fountains that are made for water bottles
- ✓ Double-sided printing
- ✓ Funding student clubs with recycling efforts (for example, collecting glossy paper as a fundraiser)

Pre-Pilot Project Waste Characterization

An initial assessment of current recycling rates at the college will be completed pre-pilot project to determine current waste and recycling baselines at FdLTCC. The campus waste stream from student areas will be characterized according to the following waste or recyclables:

- Glass
- Aluminum
- Cardboard
- Paper
- General Refuse: food waste and other materials

The waste characterization will look at weights of recyclable materials and general refuse. In addition, the characterization will estimate amounts of recyclables in the general refuse containers and general refuse in the recyclables containers.

Pre-Pilot Test Survey

FdLTCC student workers assigned to this project will conduct a pre-pilot test survey of students at the FdLTCC Water Days event March 25-27, 2014. The survey will be completed in hard copy and collected from students when completed. Upon completion and feedback, the project team will revise the survey questions to clarify questions and ensure required information is collected.

Pre-Pilot Survey

The pre-survey will target students throughout the Tribal College and at a minimum of two other regional Tribal Colleges. Options for executing this survey include:

- Student workers conduct system-wide surveys using Survey Monkey with incentives to complete (students who complete the survey will be entered into a drawing to win a gift card for the FdLTCC bookstore).
- Students visit classrooms to explain and disseminate hard copies of the surveys.
- Student workers record observations made on recycling participation of students on campus and in the dorms for set amount of time (e.g., at lunchtime for three consecutive days). Student workers will observe and record the following information to evaluate student recycling behaviors:
    a. Students using the garbage bins for recyclables
    b. Students using the recyclable bins for garbage
    c. Students using the bins appropriately
    d. Students looking for a recyclable bin but unable to find one.

Additional Survey Methods

Focus Group Discussions: Student workers will coordinate and facilitate one World Café session focused:

- Completing the Pre-Pilot Survey
- Brainstorming ideas for the pilot project at the Tribal College.

Post-Pilot Project Waste Characterization

After completion of the pilot project, an assessment of recycling rates at the college will be completed to determine the effectiveness of strategies implemented during the pilot project. The campus waste stream from student areas will be characterized according to the following waste or recyclables:

- Glass
- Aluminum
- Cardboard
- Paper
- General Refuse: food waste and other materials

The waste characterization will look at weights of recyclable materials and general refuse. In addition, the characterization will estimate amounts of recyclables in the general refuse containers and general refuse in the recyclables containers. The Pre-Pilot and Post-Pilot waste characterizations will be compared to evaluate changes in recycling rates.

Post-Pilot Survey

The post-pilot survey will target students throughout the Tribal College and at a minimum of two other regional Tribal Colleges. Options for executing this survey include:

- Student workers conduct system-wide surveys using Surveymonkey with incentives to complete.
- Students visit classrooms to explain and disseminate hard copies of the surveys.
- Student workers record observations made on recycling participation of students on campus and in the dorms for set amount of time (e,g, at lunchtime for three consecutive days). Student workers will observe and record the following information to evaluate student recycling behaviors:
    a. Students using the garbage bins for recyclables
    b. Students using the recyclable bins for garbage
    c. Students using the bins appropriately
    d. Students looking for a recyclable bin but unable to find one

The data collected in the post-pilot survey will be compared to the data collected in the pre-pilot survey to evaluate improvements in recycling rates and changes in recycling behavior among students on campus.

Fond du Lac Tribal And Community College Recycling Program Survey #2

Please take a few minutes to share your perspectives on waste and recycling and you may win a gift certificate to the FDLTCC Book Store or the FDLTCC B&B Deli!

This survey is your opportunity to share information that will help improve recycling at the Fond du Lac Band of Lake Superior Chippewa. Results from this survey will be used to pilot a recycling project throughout the campus.

To be eligible to win a gift certificate, you must complete the survey by April 30, 2014 and share your email address with us at the end of the survey. Winners will be informed by email. Information you provide will not be used for any other purpose. Questions regarding the Recycling Project may be directed to Shannon Judd who can be reached at (218) 878-7123 or shannonjudd@fdlrez.com.

Fond du Lac Tribal And Community College Recycling Program Survey #2

1. What is your gender?

- ◯ Male
- ◯ Female

2. What program are you enrolled in?

- ◯ PSEO (Post-Secondary Enrollment Option)
- ◯ Associates of Fine Arts (AA)
- ◯ Associates of Science (AS)
- ◯ Associates of Applied Science
- ◯ Certificate Program
- ◯ Continuing Eduction
- ◯ College for Seniors

3. What is your age?

- ◯ Under 18
- ◯ 18-20
- ◯ 21-25
- ◯ 26-40
- ◯ 41-50
- ◯ 50+

4. What state are you from?

- ◯ Illinois
- ◯ Indiana
- ◯ Michigan
- ◯ Minnesota
- ◯ North Dakota
- ◯ South Dakota
- ◯ Wisconsin

Other (please specify)

Fond du Lac Tribal And Community College Recycling Program Survey #2

5. Do you consider yourself a person who regularly recycles?

- ◯ Always
- ◯ Frequently
- ◯ Sometimes
- ◯ Rarely
- ◯ Never

6. Do you currently live in the dorms?

- ◯ Yes
- ◯ No

Fond du Lac Tribal And Community College Recycling Program Survey #2

7. Is it easy to recycle items in the dorms?

Strongly Agree ◯ Somewhat Agree ◯ Agree ◯ Somewhat Disagree ◯ Disagree ◯ Strongly Disagree ◯

8. I understand how and what to recycle in my dorm.

Strongly Agree ◯ Somewhat Agree ◯ Agree ◯ Somewhat Agree ◯ Disagree ◯ Strongly Disagree ◯

9. If a recycling bin were provided in your dorm room, would you use it?

◯ Yes

◯ No

10. If no, why not?

11. How often do you recycle the following items in the dorms?

	Always	Usually	Sometimes	Rarely	Never	Don't Use On Campus
Paper	◯	◯	◯	◯	◯	◯
Aluminum Cans	◯	◯	◯	◯	◯	◯
Plastic Bottles	◯	◯	◯	◯	◯	◯
Magazines	◯	◯	◯	◯	◯	◯
Newspapers	◯	◯	◯	◯	◯	◯
Tin Cans	◯	◯	◯	◯	◯	◯
Sticky Notes	◯	◯	◯	◯	◯	◯
Cardboard	◯	◯	◯	◯	◯	◯

Fond du Lac Tribal And Community College Recycling Program Survey #2

12. It is easy to recycle items on campus.

Strongly Agree	Somewhat Agree	Agree	Somewhat Disagree	Disagree	Strongly Disagree
◯	◯	◯	◯	◯	◯

13. I understand how and what to recycle on campus.

Strongly Agree	Somewhat Agree	Agree	Somewhat Disagree	Disagree	Strongly Disagree
◯	◯	◯	◯	◯	◯

14. How often do you recycle the following items on campus?

	Always	Usually	Sometimes	Rarely	Never	Don't Use On Campus
Paper	◯	◯	◯	◯	◯	◯
Aluminum Cans	◯	◯	◯	◯	◯	◯
Plastic Bottles	◯	◯	◯	◯	◯	◯
Magazines	◯	◯	◯	◯	◯	◯
Newspapers	◯	◯	◯	◯	◯	◯
Tin Cans	◯	◯	◯	◯	◯	◯
Sticky Notes	◯	◯	◯	◯	◯	◯
Cardboard	◯	◯	◯	◯	◯	◯
Other	◯	◯	◯	◯	◯	◯

Other (please specify)

15. Typically recyclables at campuses are comingled and sent to a sorting facility. Do you believe your campus recyclables make it to the sorting facility for recycling?

- ◯ Yes
- ◯ No
- ◯ Don't Know

16. If you do not think campus recyclables make it to a sorting facility, why do you think they might not make it ?

17. What do you see as the benefits of recycling?

Fond du Lac Tribal And Community College Recycling Program Survey #2

18. What makes recycling difficult or challenging on campus?

19. Is there a need for more recycling bins in campus buildings?

- ◯ Yes
- ◯ No
- ◯ No Opinion

20. Enter areas that need more recycling bins:

21. How would you encourage recycling on campus? (please check all that apply)

- ☐ Increase awareness through on-campus print and social media
- ☐ Incentive programs, competitions, recycling drives
- ☐ Mandatory recycling
- ☐ More recycling bins
- ☐ Less trash bins

Other (please specify)

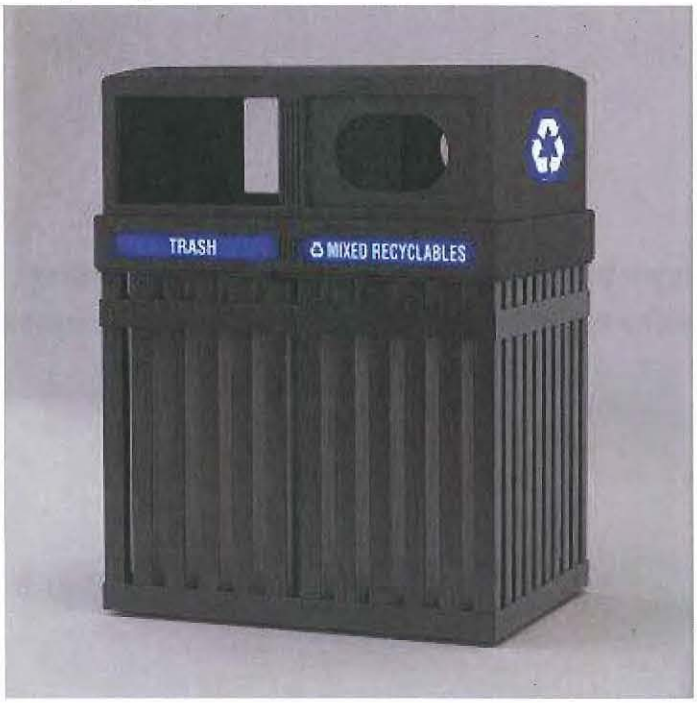
22. For the recycling and waste containers shown below, please choose the container that you believe would be the most visible and appealing container for campus common areas.

- ◯ Recycling and Waste Bin #1
- ◯ Recycling and Waste Bin #2
- ◯ Recycling and Waste Bin #3
- ◯ Recycling and Waste Bin #4

Fond du Lac Tribal And Community College Recycling Program Survey #2

Recycling and Waste Bin # 1

Recycling and Waste Bin #2



Recycling and Waste Bin #3

Recycling and Waste Bin #4

23. For the recycling instruction posters shown below, please choose for the poster that you believe would be the most visible and easy to understand poster for campus common areas.

- ◯ Recycling Poster #1
- ◯ Recycling Poster #2
- ◯ Recycling Poster #3

Fond du Lac Tribal And Community College Recycling Program Survey #2

Recycling Poster #1

Recycling Poster #2

Recycling Poster #3

24. Please provide any additional comments:

25. If you would like to be entered into the drawing for a FDLTCC Book Store or FDLTCC B&B Deli gift certificate, please enter your email below. Thank you!

Example Waste and Recycling Observation Checklist

Date of Observation: _____

Name and E-mail Address: _____

Recycling Bin Location:	**Is garbage bin located with recycling bin? Y or N**	**Are recycling signs clearly visible? Y or N**	**For each material, indicate estimated percentage of the total recyclables in the bin.** *Add more materials if needed.*		**Estimate amount of garbage present in recyclable bin (estimated percentage of all material in the bin).**	**Estimate amount of recyclables present in garbage bin (estimated percentage of all material in the bin).**
Insert locations of recycling bins.	*Revise this research question based on your project.*	*Revise this research question based on your project.*	Cans		*Include quantitative measures in your survey to support research and evaluating your projects.*	*Include quantitative measures in your survey to support research and evaluating your projects.*
			Plastic bottles			
			Paper			
			Other:			
Cafeteria			Cans			
			Plastic bottles			
			Paper			
			Other:			
Classroom #1			Cans			
			Plastic bottles			
			Paper			
			Other:			
Dorm			Cans			
			Plastic bottles			
			Paper			
			Other:			

Recycling Bin Location:	Is garbage bin located with recycling bin? Y or N	Are recycling signs clearly visible? Y or N	For each material, indicate estimated percentage of the total recyclables in the bin. *Add more materials if needed.*		Estimate amount of garbage present in recyclable bin (estimated percentage of all material in the bin).	Estimate amount of recyclables present in garbage bin (estimated percentage of all material in the bin).
Concessions Area			Cans			
			Plastic bottles			
			Paper			
			Other:			
Faculty Wing			Cans			
			Plastic bottles			
			Paper			
			Other:			
Library			Cans			
			Plastic bottles			
			Paper			
			Other:			
Location Name			Cans			
			Plastic bottles			
			Paper			
			Other:			
Location Name			Cans			
			Plastic bottles			
			Paper			
			Other:			
Location Name			Cans			
			Plastic bottles			
			Paper			
			Other:			
Location Name			Cans			

Recycling Bin Location:	Is garbage bin located with recycling bin? Y or N	Are recycling signs clearly visible? Y or N	For each material, indicate estimated percentage of the total recyclables in the bin. *Add more materials if needed.*		Estimate amount of garbage present in recyclable bin (estimated percentage of all material in the bin).	Estimate amount of recyclables present in garbage bin (estimated percentage of all material in the bin).
			Plastic bottles			
			Paper			
			Other:			
Location Name			Cans			
			Plastic bottles			
			Paper			
			Other:			
Classroom #: _____			Cans			
			Plastic bottles			
			Paper			
			Other:			
Classroom #: _____			Cans			
			Plastic bottles			
			Paper			
			Other:			
Classroom #: _____			Cans			
			Plastic bottles			
			Paper			
			Other:			
Classroom #: _____			Cans			
			Plastic bottles			
			Paper			
			Other:			

Additional Notes:

Tribal Community-Based Social Marketing (CBSM) Recycling Toolkit

Example Data Analysis

Summary of Key Findings

Questionnaire Results

After the Fond du Lac Tribal and Community College (FDLTCC) sent the initial web-based questionnaire to all students, their responses showed:

- ✓ **Awareness:** Students have a high level of awareness of recycling options on campus, and most students have a desire to recycle. However, that awareness and desire does not translate to actual recycling. For example, paper is only always or usually recycled by 36% of the respondents.
- ✓ **Barriers:** Difficulties with recycling on campus included not enough recycling bins and not in the most effective locations, a need for improved recycling signage, and the belief that people don't care enough to put in the extra effort to recycle.
- ✓ **Benefits:** Students are aware of a wide variety of benefits to recycling, including resource conservation, waste reduction, reduced pollution, and money savings.
- ✓ **Next Steps:** Students suggested ways to improve recycling on campus that included posting more recycling signs; and adding recycling bins in classrooms, at entrances and hallways, outside the gymnasium and computer labs; and next to every garbage can.

Baseline Waste Characterization and Behavior Observations

Following the questionnaire, FDLTCC coordinated with its facility maintenance staff to set aside a week's full of garbage and conducted a waste characterization to determine how much and what recyclable items are actually put in the trash on campus. Then, the recyclables and trash were each weighed separately. Student workers also observed and recorded recycling behaviors in student areas to understand why materials such as paper were not being recycled and instead were placed in trash bins. The waste characterization and behavior observations showed:

- ✓ The highest percentage of recyclables in the trash was found in classrooms where no recycling bins were available (46%).
- ✓ The other areas with high percentages (over 20%) of recyclables in the trash were faculty, office, and common areas.
- ✓ Students found a significant amount of recyclables in the trash, mostly aluminum cans, plastic bottles, and paper.

Pilot Project Recommendations

Based on the results from the questionnaire, baseline waste characterization, and behavior observations, it appears that recycling behaviors could be increased using these CBSM strategy tools:

- ✓ **Convenience:** Retrofitting existing trash cans with recycling lids and pairing them with trash cans to create new recycling stations in areas indicated by students in need of recycling options. Installing new recycling stations, in styles favored by students in the questionnaire, in classrooms and high-traffic areas.
- ✓ **Prompt:** Increasing signage, in styles favored by students in the questionnaire, to prompt students to use the new recycling locations.
- ✓ **Communication:** Preparing signage in English and Anishinaabe language; communicating about recycling during student orientation.
- ✓ **Social Diffusion**: Having a work-study student champion the program to other students.

2.0 Questionnaire Participants

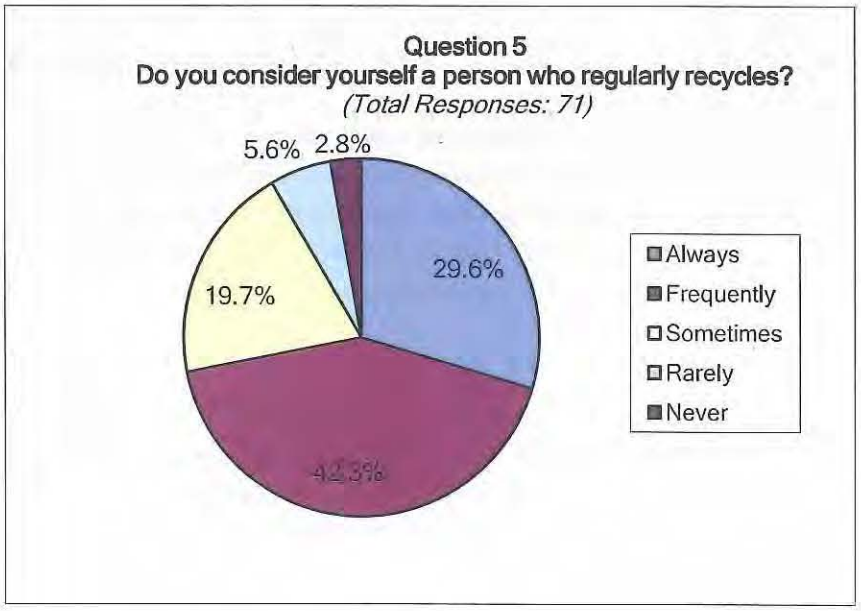
FDLTCC sent out the questionnaire through Survey Monkey on April 21, 2014 to all 420 students enrolled on campus through an email link. Students clicked on the link and were able to answer the questionnaire questions as shown in Attachment A. The questionnaire remained live from April 21 to April 30, 2014. The majority of questionnaires were completed the first three days of the questionnaire period. Students who completed the questionnaire and entered their email address were entered into a drawing for a gift certificate to the FDLTCC Book Store or the FDLTCC B&B Deli as an incentive to complete the questionnaire.

With the sample of 72 students who completed the questionnaire from the 420 students at FDLTCC, the results indicate that just over 17 percent of the student population completed the questionnaire. As indicated in the raw data presented in Attachment B, some respondents skipped questions. Of the questionnaire respondents:

- 84% were female and 16% were male.
- 44% are enrolled in the Associates of Fine Arts Program and 29% are enrolled in the Associates of Science Program.
- 35% of respondents are ages 26-40 and 25% of respondents are ages 21-25.
- 90% of the respondents are from Minnesota.

3.0 Awareness Level and Behavior Frequency

Questions 5, 12, 13 and 14 identify student awareness about the ability to recycle on campus. Questionnaire respondents indicated 42% consider themselves a person who frequently recycles and 30% consider themselves someone who always recycles. Most of the respondents (83%) agree to strongly agree it is easy to recycle items on campus and most respondents (90%) understand how and what to recycle on campus. These responses indicate a high level of awareness of recycling options on campus.



Question 15 breaks down the respondent recycling frequency by

material. Table 1 shows the materials recycled by respondents and frequency. Respondents most often recycle aluminum cans and plastic bottles while over half of the respondents do not use magazines, tin cans, or cardboard on campus. While the majority of respondents believe it is easy to recycle on campus, only between 52% and 55% always recycle aluminum cans and plastic bottles. Paper, the next frequently recycled material, is not often recycled by the majority of the respondents. However, most respondents (96.9%) likely use paper on a regular basis on campus.

Table 1
Materials Recycled and Frequency (Question 15)

	Always	Usually	Sometimes	Rarely	Never	Don't Use on Campus
Paper	9.4%	26.6%	21.9%	10.9%	1.6%	3.1%
Aluminum Cans	51.5%	25.8%	6.1%	3.0%	1.5%	12.1%
Plastic Bottles	54.5%	25.8%	12.1%	3.0%	1.5%	3.0%
Magazines	7.9%	7.9%	14.3%	9.5%	3.2%	57.1%
Newspapers	7.9%	7.9%	12.7%	11.1%	3.2%	9.5%
Tin Cans	14.1%	6.3%	12.5%	6.3%	4.7%	56.3%
Sticky Notes	6.5%	6.5%	8.1%	17.7%	14.5%	46.8%
Cardboard	17.2%	3.6%	9.4%	7.8%	6.3%	53.1%
Other	0.0%	2.9%	8.8%	5.9%	8.8%	73.5%

Questions 6 through 8 and 11 addressed recycling in the dorms at FDLTCC. Only two respondents indicated that they lived in the dorms and provided answers relating to recycling in the dorms. The two respondents indicated it not easy to recycle in the dorms and only one of the respondents understands how and what materials to recycle. The response to Question 10 indicates that recycling in the dorms requires sorting and hauling the recyclables across campus to another container.

4.0 Barriers to Change and Benefits

A key component to designing a pilot program to increase recycling through behavior change is to identify barriers or constraints that prevent the population from achieving the desired behavior. In this project, that desired behavior is making the choice to place recyclables in the correct collection bins rather than the general refuse. The identified potential barriers and benefits as shown in the questionnaire results are presented below.

Potential Barriers

The questionnaire assessed barriers to student recycling at FDLTCC by asking opinions on where recyclables are sorted and recycled after they leave campus (Questions 15 and 16). The majority of respondents (71%) believe the campus recyclables are sent to a sorting facility. While only 1.5% indicated they did not believe campus recyclables are sent to a sorting facility, 27% indicated they did

not know. When asked why the recyclables might not make it to the sorting facility, three respondents provided the following additional comments:

- I have seen recycled paper bins thrown with the regular trash by maintenance.
- It might be too much work for them to do.
- Not sure if recycling bins are sorted to make sure only paper is in the paper bin.

Question 18 is an open-ended question asking what makes recycling difficult or challenging on campus. The 54 comments fell into the following general categories of barriers to recycling:

- Not enough recycling bins; need more locations or better placement of recycling bins (20 responses).
- Classrooms need more recycling bins (2 responses).
- Recycling signage needs improvement to understand what can go into the bin for recycling (2 responses).
- People just want to throw stuff away or they do not care enough to go through the little extra work (2 responses).

One respondent indicated that signage should be improved to understand where paper should be recycled and where other materials should be recycled, such as magazines or sticky notes. Another respondent indicated having maintenance involved with recycling would be beneficial.

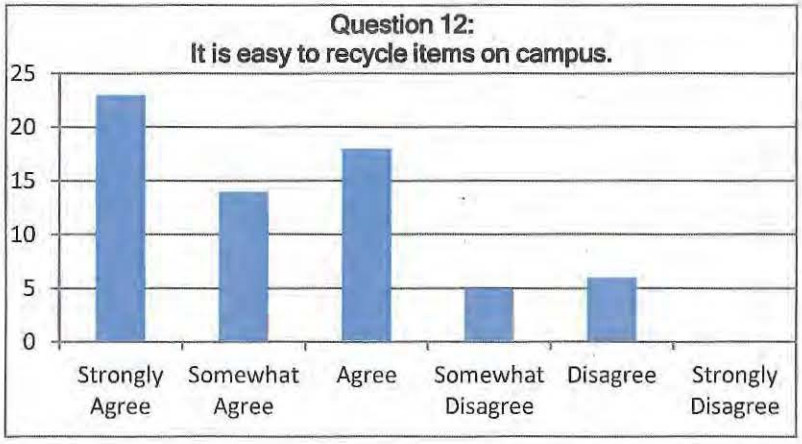
As noted above, 74% of the respondents to Question 18 indicated that either there are not enough recycling bins on campus or additional locations or better placement of recycling bins is needed. This percentage corresponds fairly well to the almost 55% of respondents to Question 19 that indicated there is a need for more recycling bins in campus buildings. Question 20 is an open-ended question asking where additional recycling bins should be placed on campus. The 37 responses to Question 20 fell into the following general categories:

- In the classrooms (12 responses).
- Entire campus, including outdoors (7 responses).
- Entrances and hallways (6 responses).
- Near the common areas (5 responses).
- Outside of gym area and computer labs (3 responses).
- Next to all garbage cans (3 responses).

Potential Benefits

Benefit questions 12, 17 and 21 focused on the ease of recycling on campus, why students should recycle and what programs would encourage students to increase their recycling on campus.

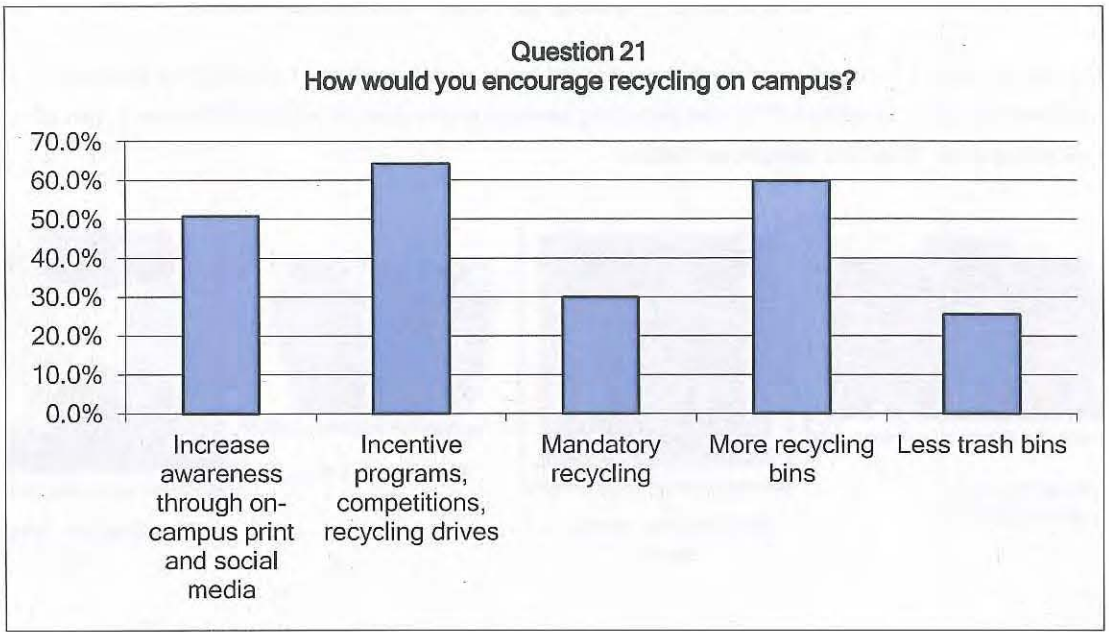
Question 12 asked students to rate their agreement with the statement: "It is easy to recycle items on campus." The majority (83%) of the 66 respondents strongly agreed, somewhat agreed and agreed that it was easy to recycle on campus.



Question 17 in the recycling questionnaire focused on identifying what students see as the benefits of recycling. Sixty students answered the question and provided a variety of perspectives on how recycling benefits the campus and the earth. Many of the open-ended responses provided multiple benefits of recycling. The benefits to our environment and earth and saving resources by reusing materials were identified as the main benefits to recycling. The open-ended responses fell into the following general categories:

- Good for the earth, protects the environment and helps the earth (26 responses).
- Saving resources and being able to reuse materials to create new products (21 responses).
- Less waste and less landfill space used up (20 responses).
- Less pollution or damage to the earth (4 responses).
- Saves money (3 responses).

Question 21 in the recycling questionnaire asked students to choose all the programs that they felt would encourage recycling on campus. Out of 67 respondents, 64% felt that incentive programs, competitions and recycling drives were beneficial in encouraging students to recycle on campus. Almost 60% felt that more recycling bins would encourage recycling. This corresponds with question 19 where 55% of respondents indicated more recycling bins were needed in campus buildings. A significant number of respondents, 50.7%, also indicated that increasing awareness through on-campus print and social media would encourage recycling.


Question 21
How would you encourage recycling on campus?
70.0%
60.0%
50.0%
40.0%
30.0%
20.0%
10.0%
0.0%
Increase awareness through on-campus print and social media
Incentive programs, competitions, recycling drives
Mandatory recycling
More recycling bins
Less trash bins

5.0 Waste and Recycling Bins and Educational Posters

Questions 22 and 23 focused on identifying what resonates with students for recycling bin options and educational posters. Question 22 in the recycling questionnaire presented four different types of waste and recycling bins. The bins are shown below.

Recycling and Waste Bin #1

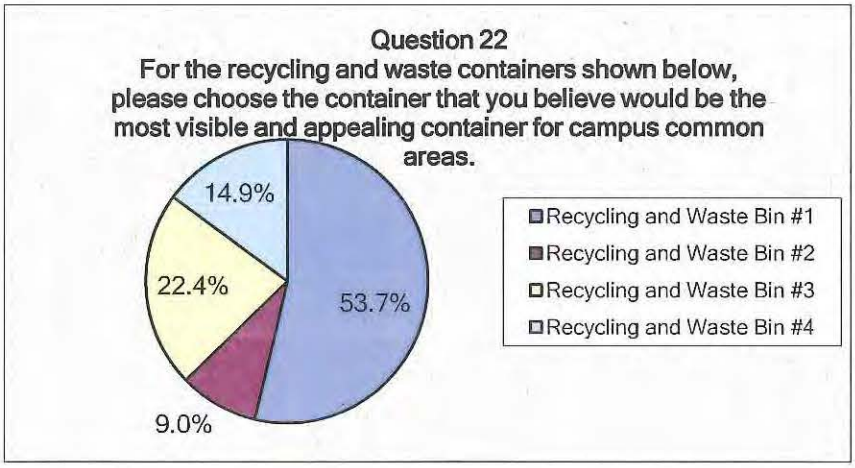
Recycling and Waste Bin #2

Recycling and Waste Bin #3

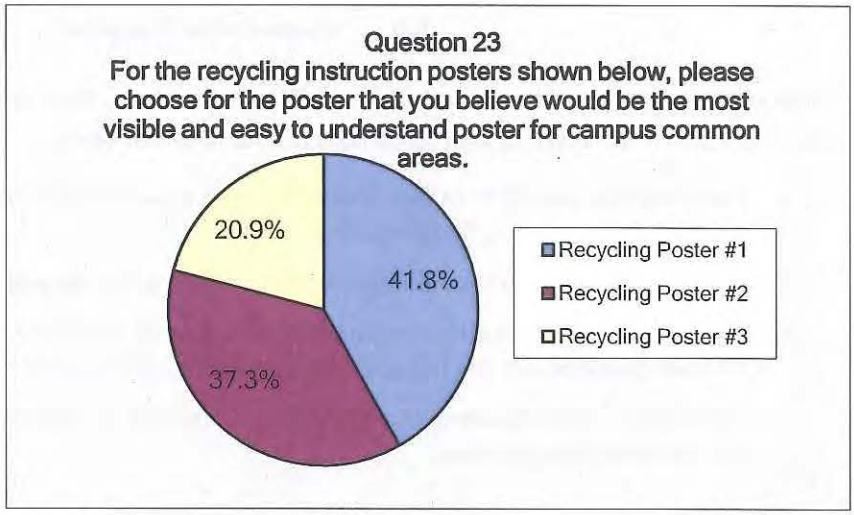
Recycling and Waste Bin #4

Respondents were asked to choose the containers they believe would be the most visible and appealing. Out of the 67 respondents, the majority, 53.7% chose the first option, Recycling and Waste Bin #1. This option, which separates glass and cans from paper, corresponds to open-ended comments from Questions 16 and 18 that indicated students believe paper should be separated from other recyclables. Recycling and Waste Bin #3, a similar recycling bin and waste bin set-up to Recycling and Waste Bin #1, was the next most chosen option.

Question 23 presented three education posters in different formats to gage student perceptions on visibility and understanding. Recycling Posters #1 and #2 received similar responses and were preferred



over Recycling Poster #3 (see question 23 in Attachment A for the options). Recycling Posters #1 and #2 present a visual representation of what to recycle and what to throw in the trash. A small percentage preferred Recycling Poster #1 over #2. Recycling Poster #1 has actual photographs of recyclable and landfill items whereas Recycling Poster #2 has clipart representations of the items.



Poster #1

Poster #2

Poster #3

6.0 Open-Ended Question

Question 24 of the questionnaire asked for additional comments from the respondents. Comments affecting a potential recycling pilot on campus are summarized below:

- Recycling bins should be in the classrooms since most students will not carry their recyclables out of the classroom to find a recycling bin.
- Educational materials should show visuals of what can be recycled and be "short and simple."
- Two respondents indicated they liked the see-through container (Recycling and Waste Container #4 from Question 22) and thought seeing the recyclables would serve as a motivator.
- Respondents were supportive of increasing awareness of recycling and improving recycling efforts throughout campus.

7.0 Waste Characterization Results

On May 8, 9, and 12, FDLTCC students conducted a waste characterization of the campus, which consisted of collecting 25 bags of trash over the 3-day period. At the end of the 3-day period, the bags were each weighed, then opened and separated into recyclables and trash. The recyclables and trash were then weighed. The students conducting the waste characterization indicated that a significant amount of recyclables were present in the trash. These recyclables consisted of mostly aluminum cans, plastic bottles, and paper. The following locations generated the highest percentage of recyclables in their trash: Conference/Event, Commons, and Classrooms/Offices. Table 2 shows the results of the waste characterization.

Table 2
Waste Characterization Results at FDLTCC (May 2014)

Location	Number of Bags	Weight of Recycling (lbs)	Weight of Trash (lbs)	Total Weight (lbs)[1]	Percentage of Recycling in Trash
Conference/Event	4	11.2	32.6	46.6	24%
Bathroom/Offices	1	0.0	6	7.4	0%
Upstairs	1	0.8	5.2	7.2	11%
Law Enforcement/Upstairs	1	11.2	31.2	42.4	26%
Commons	4	5.6	18.4	27.0	20%
Lil Thunder Daycare	3	2.0	94.2	95.4	2%
Offices	1	2.8	6	11	25%
Faculty	1	2.4	4.8	7.4	32%
Art Room	1	3.4	12.4	16.2	21%
Arrowhead Room	1	0.4	13.4	16.2	2%
Auditorium	1	0.4	7.0	8.0	5%
Maintenance/Offices	2	0.8	12.0	31.4[2]	3%
Bathroom	1	0.0	12.8	13.4	0%
Commons/Lab	1	2.2	12.6	16.0	14%
Classroom/Offices	1	15.4	16.4	33.8	46%
Offices/Commons	1	5.8	12.4	19.2	30%
TOTAL	25	64.0	297.4	398.6	

Notes:
[1]Includes weight of bag. Variability in total weight compared to the combined weight of the trash and recycling may be the result of scale calibration or weighing methodology among students.
[2]One bag from the maintenance/offices areas contained a significant amount of liquid that resulted in a higher total weight.

8.0 Pilot Project Recommendations

The recycling questionnaire showed a strong desire among respondents to participate in recycling on campus. Most respondents feel they always or frequently recycle if the option is available. Most of the respondents also feel it is easy to recycle on campus, and understand how and what to recycle. While this self-reporting indicates a desire to recycle, it does not translate into actual recycling on a regular basis. Aluminum cans and plastic bottles are always recycled around half of the time and paper is always recycled less than 10% of the time. Other materials are infrequently recycled on a regular basis. Respondents generally felt that there are not enough recycling bins and are looking for better placement of the recycling bins to meet their needs while on campus.

The potential scenarios presented below present pilot options to address the barriers to recycling identified throughout the questionnaire as well as address accepted best practices throughout university and college recycling programs. As pilot programs, they will allow FDLTCC to evaluate the program, document the results, and determine the program that can be successfully expanded throughout the campus to increase overall recycling rates.

Scenario #1: Increase Recycling Bins and Improve Locations

- The questionnaire suggests that many respondents would like additional recycling bins located throughout the common areas, in each classroom, in the dorms, and by entrances and exits. The May 2014 waste characterization results supported the student questionnaire results and showed that the following areas generated the highest percentage of recyclables in their trash: Conference/Event, Commons, and Classrooms/Offices. These locations reflect traffic patterns, significant recyclable generation, and major congregating areas throughout campus and would be good locations to increase recyclable collection.
- A design plan that strategically locates additional bins could be prepared with input from a student group willing to champion the pilot program. The design plan should address the need for making recycling on campus as easy as possible.
- The student questionnaire strongly indicated that recycling bins in each classroom was a preferred option for increasing recycling.
- Based on the student questionnaire, separate bins should be considered for paper collection. The student questionnaires indicated that paper is only always recycled by the 9.4% of the respondents. However, paper is one of the largest volumes of recyclables generated on campus. Students had comments such as not understanding where paper should be recycled and they were not sure if recycling bins are sorted to make sure only paper is in the paper bin.
- The design plan should be developed with maintenance staff input to ensure extra collection is accounted for and available among maintenance staff.

Scenario #2: Pilot a Visually Appealing Recycling Bin

- The questionnaire showed that the majority of respondents found recycling bins that had clear visual symbols and language with options for separating paper to be the most visually appealing
- A new bin that meets the questionnaire results criteria could be piloted in one common area location. The bin should be cleanable, unbreakable, and meet the funding requirements for expansion of additional bins if the bin proves successful in increasing recyclables collected.
- The recycling in the new bins should be documented and compared to the current bin used during a modified waste characterization.
- Consider converting current trash bins to recycling bins with new lids that only allow for recyclables to be deposited in the bin.

Scenario #3: Pilot New Signage, Posters, and Social Media Content

- Develop and pilot consistent signage and posters to use with a specific group of recycling bins (e.g., in the cafeteria). Posters and signs should be visual representation of what to recycle as well as easy to understand. Posters and signs should be placed at eye level. Even though most students consider themselves a recycler, they are not always recycling materials on campus. Strong visual prompts and convenient options are key to breaking the disconnect between what a student wants to do (recycle) and what the student actually does (throws recyclables in the trash).
- Build a social media platform that applies social norm-based message. Develop content that focuses on recycling efforts on campus (e.g., photographs of student leaders recycling) and the recycling motivators identified in the questionnaire including:
    - Majority of questionnaire respondents support recycling and want to increase it – publicize that message.
    - Good for the earth and environment.
    - Resources are lost when valuable materials discarded.
    - Less waste leads to less landfill space.

Scenario #4: Pilot an incentive program or competition to encourage recycling.

- Develop a recycling contest that motivates a small group (for example, a classroom) to collect the most recyclables compared to other classrooms. Through weekly weigh-ins determine which classroom has the greatest increase in recyclables by weight for a month. The highest recycler wins a prize.
- Hold a paper recycling competition between tribal colleges. Coordinate with another tribal college to collect the most paper for a one month period. The paper should be collected in separate containers and weighed.
- Implement a pledge drive where individual students sign a pledge card committing to recycling while on campus.

Tribal Community-Based Social Marketing (CBSM) Recycling Toolkit

Checklist of CBSM Strategy Tools to Address Barriers to Recycling

There are several Community-Based Social Marketing strategy tools that can be used to increase sustainable behavior, including recycling. These strategy tools can be summarized as:

- **Convenience** – removing external barriers (or misperceptions) to make the behavior more convenient
- **Commitment** – encouraging people to make public, written commitments to perform the behavior
- **Social Norm** – exhibiting or communicating a behavior to be normal, commonplace
- **Social Diffusion** – setting examples and using social interactions to spread the adoption of the behavior
- **Prompts** – using visual or auditory aids to remind people to perform the behavior
- **Communications** - crafting effective messages tailored to the target audience
- **Incentives** – providing monetary or non-monetary benefits to encourage the behavior

To design an effective CBSM strategy to increase recycling behavior, it is essential that the strategy tools you select are tailored to the barriers you encounter. Select the appropriate tools based on the barriers of recycling for your target audience. These general barriers can be typically addressed by the following strategy tools:

Barriers	Strategy Tools
Structural Barriers	Convenience
Lack of Motivation	Commitment Social Norm Incentives
Forget to Act	Prompts
Lack of Social Pressure	Social Norms
Lack of Knowledge	Communication Social Diffusion

To increase the likelihood of people performing the desired recycling behavior, use the following checklists to consider which tactics for each appropriate CBSM strategy tool might work best for your target audience.

✓ Checklist for Using Convenience

Remove external barriers (or misperceptions) to make the behavior more convenient, before using any other CBSM strategy tool.

- ❑ **Reduce structural barriers.** Remove external barriers first before removing individual barriers to a target behavior. Assess whether you have resources to remove external barriers before implementing program, such as funding for recycling bins or collection staff, cost-effective access to recycling markets, etc.

  Example

  - ❖ Provide recycling receptacles in more convenient places and garbage receptacles in less convenient places. Seek recommendations from your target audience on the best places for receptacles.

- ❑ **Make the competing behavior less convenient than the desired behavior.** In cases where the financial resources do not exist to make the recycling behavior more convenient through costly structural changes, consider making the recycling behavior more convenient and less costly than the unwanted behavior, i.e. disposing recyclables into the garbage.

  Example

  - ❖ Institute a user charge for garbage disposal and no charge for recycling. Communicate how much money a person will **lose** on average by throwing recyclables into the garbage, rather than how much money the person will save by recycling **(see Checklist for Communications).**

✓ Checklist for Using Commitment

A commitment is an agreement or pledge to do something in the future. Commitments are useful when people believe recycling is worthwhile, but they have not yet acted.

People have a strong desire to be seen as consistent by others.

- ❑ **Emphasize written over verbal commitments.**

  Example
  - See example Pledge Card on next page.

- ❑ **Ask for public commitments.**

  Example
  - When asking recyclers to commit to affixing decals to the front of their houses, front trash cans or recycling containers indicating that "We Recycle" (also refer to next section on **Social Norms**), ask if you can print their names in the tribal newspaper as part of a list of people supporting the recycling effort.

- ❑ **Ask people to make a small commitment first, which will make it easier to get them to make a larger commitment later.**

  Example
  - Ask people to commit to recycling materials that are easier to manage, like paper, before asking them to commit to rinsing out cans and bottles before recycling.

- ❑ **Follow up with the person's commitment.**

  Example
  - When asking recyclers to commit to affixing decals to the front of their houses, front trash cans or recycling containers indicating that "We Recycle" (also refer to next section on **Social Norms**), also ask if you can contact them later to see if they affixed the decals or if there are any questions or concerns.

✓ Checklist for Using Social Norms

Establishing social norms to instill recycling behavior can be helpful when your target audience does not yet believe the act of recycling is important or the right thing to do.

People look to the behavior of those around them to determine how they themselves should behave.

- ❑ **The social norm should be noticeable.**

  Example

  - ❖ While recycling with curbside bins could be easily visible among tribal residents, recycling at a drop-off collection at the tribal transfer station is not as widely visible to everyone in the community. To make drop-off recycling behavior more visible amongst tribal residents, ask recyclers to commit to affixing a decal to the front of their house, front trash can or recycling container indicating that 'We Recycle."

- ❑ **As with prompts, when possible use social norms to encourage people to engage in positive behaviors rather than to avoid environmentally harmful actions.**

  Example

  - ❖ Having people agree to display a sign or sticker that says "WE RECYCLE OUR ELECTRONICS" can lead to more electronics recycled than a sign that says "NO DUMPING of ELECTRONICS."

- ❑ **Combine descriptive information with praise (i.e. *injunctive norm*) when people are performing the recycling behavior better than average.**

  Example

  - ❖ Display a "thermometer" gage to show the increase in the percent of material(s) being recycled at the recycling drop-off station.

✓ Checklist for Using Social Diffusion

Set examples and use social interactions to spread the adoption of recycling behavior.

- ❑ **Ensure that the recycling behavior you are promoting is visible.**

  Example

  - ❖ The Fond du Lac Tribal and Community College displayed a graph in public places on campus showing how well the pilot new recycling program improved the school's recycling rate.

- ❑ **Gain commitments from early adopters to speak to others about your recycling initiative.**

  Examples

  - ❖ Ask community leaders and other champions of the recycling program to commit to speaking to others door to door (or at tribal meetings, schools, and other events) about the recycling program and how others are adopting the recycling behavior.

  - ❖ The Fond du Lac Tribal and Community College had student work-study interns talking about the school's recycling program in classrooms, student orientation, and other campus events.

- ❑ **Provide feedback at both the individual and community levels about the impact of people's recycling actions.**

  Example

  - ❖ Communicate how the positive impacts of recycling will help offset the effects of greenhouse gases and climate change on the tribe's way of life. Use greenhouse gas equivalency calculators to illustrate how much the tribe recycles is equivalent to how many cars are removed from the road, how many trees planted, etc.

- ❑ **Increase the likelihood that people will discuss their new activity with others.**

  Example

  - ❖ Display bar charts in the tribal newspaper showing the progress on the recycling program.

✓ Checklist for Using Prompts

Use prompts when your target audience forgets to recycle. Prompts are useful in encouraging repetitive behaviors like recycling. Prompts are best used when the target audience supports the idea of recycling; but if they do not support it yet, prompts should be used with **Social Norms** to instill recycling behavior.

- ❑ **Make the prompt noticeable.**

  Example
  - ❖ Get feedback from your target audience as to what kind of sign over the recycling bins would best get their attention to remind them to recycle. The Fond du Lac Tribal and Community College asked their students for input on new recycling signs, which they preferred written in both English and Ojibwe language.

- ❑ **The prompt should be specific and self-explanatory. Through graphics and/or text the prompt should explain simply what the person is to do.**

  Example
  - ❖ The Fond du Lac Tribal and Community College displayed on their recycling signs pictures of the exact types of materials students should recycle in the recycling bins.

- ❑ **The prompt should be presented as close in time and space as possible to the targeted behavior.**

  Example
  - ❖ If composting paper towels, place a collection bin for paper towels right next to the exit door at public restrooms or kitchenettes, so a person will be prompted to throw the paper towel into the collection bin right after using the towel to open the door.

- ❑ **Use prompts to encourage people to engage in positive behaviors rather than to avoid environmentally harmful actions.**

  Example
  - ❖ Work with the tribe's convenience store or nearby retail outlets/other venues to affix decals to bottles of motor oil, providing information on where to recycle the oil, instead of saying "NO DUMPING DOWN THE DRAIN"

✓ Checklist for Communications

If there is a lack of awareness or knowledge regarding recycling, consider these tactics for effective messaging about recycling:

- ❑ **Make sure that your message is vivid, personal, and concrete.**

- ❑ **Frame your message to indicate what the individual is losing by not acting, rather than what he/she is saving by acting.**

  Example

  - ❖ "Our tribe LOSES $XX a year when recyclables are thrown in the trash."

- ❑ **If you use a negative message, make sure that you couple it with specific suggestions regarding what actions an individual can take.**

  Example

  - ❖ "Our tribe LOSES $XX a year when recyclables are thrown in the trash. Remember to separate your paper, plastics, and metals for recycling."

- ❑ **Use positive communication to make instructions for a desired behavior clear and specific. Make it easy for people to remember what to do, and how and when to do it.**

  Example

  - ❖ "Miigwetch for recycling your CFL bulbs at the CFL drop off site."

- ❑ **Integrate tribal goals into the delivery of your program.**

  Example

  - ❖ Communicate how the positive impacts of recycling will help offset the effects of greenhouse gases and climate change on the tribe's way of life. Use greenhouse gas equivalency calculators to illustrate how much the tribe recycles is equivalent to how many cars are removed from the road, how many trees planted, etc.

✓ Checklist for Using Incentives

Use incentives as strategies to increase motivate people to recycle.

Research in behavior change underscores the importance and success of using incentives to reward behavior we would like people to engage in. The success of disincentives are often less predictable, since the punishment suppresses an unwanted behavior but does not directly encourage a positive alternative.

- ❑ **Closely pair the incentive and the behavior.**

  Example
  - ❖ If the tribe's transfer station must charge fees to people to cover costs to recycle electronics, white goods, etc., provide opportunities for people to enter drawings for gift cards, raffle prizes, etc. if they bring these items in to recycle.

- ❑ **Use incentives to reward positive behavior.**

  Example
  - ❖ Institute a user charge for garbage disposal and no charge for recycling. Communicate how much money a person will **lose** on average by throwing recyclables into the garbage, rather than how much money the person will save by recycling **(see Checklist for Communications)**

- ❑ **Make the incentive visible.**

  Example
  - ❖ Advertise the incentives in tribal newspaper, signs at transfer station, tribal businesses, etc.

- ❑ Remove incentives only if you think people will continue the behavior eventually without it.
- ❑ Prepare for people's attempts to avoid the associated disincentive.
- ❑ Carefully consider the size of the incentive.
- ❑ Use non-monetary incentives, such as public recognition.

Reference: Doug McKenzie-Mohr, *Fostering Sustainable Behavior: An Introduction to Community-Based Social Marketing* (2011)

Tribal Community-Based Social Marketing (CBSM) Recycling Toolkit

Example Pilot Project Implementation Plan

Plan for recycling project FDLTCC 2014

Objective: Retrofit existing trash cans with a recycling lid and pair them refuse cans to create new recycling stations; situate these new stations in areas indicated by students in need of recycling opportunities. (Classrooms, Labs and 2nd level) Pair these new stations with increased signage and recycling prompts to draw attention to their locations. Provide new recycling stations in classrooms and high traffic areas, using recycling bin styles that were favored by students in our campus wide survey.

Focal Issue: Students will throw recyclable materials in refuse containers if they are more conveniently located, to deter this behavior all refuse containers should be paired with a recycling receptacle with signage to draw attention to the types of items that can go into the recycling receptacle

Implementation: Purchase retrofit lids for our existing Brute trashcans; reposition those in updated locations. Increase awareness with bright and informative signage. Purchase 5 recycling stations that include a receptacle for trash and one for mixed recycling; these stations would have bold signage to draw attention to their location. Purchase smaller recycling cans for classrooms.

Locations:

Stations: Two stream waste/recycling stations would be placed in nine different locations around the school. These locations on the first floor include the student services area, 2 in the commons, outside the auditorium/gym and in concessions area. On the second floor stations would be in the computer labs 205 & 209, outside biology/chemistry labs and outside nursing/law enforcement center. (Image 1.) The dorm will have a station as well as 14 quart recycling containers in each dorm room (Image 3.)

Classrooms: All would be fitted with a smaller desk side recycling.

Commons: Move existing trash cans next to recycling stations and retrofit one can with the recycling lid and pair it with the remaining trash can to create another recycling station

Gym/Entry area: Move trashcan near recycling station, retrofit one can with recycling lid and move near gym entrance, move remaining can to the area between the bathrooms near the Arrowhead conference room to create a station with the existing recycling container.

Upstairs vending area: Add trashcan to recycling station so students do not throw trash in the recycling bins.

Signage: Adding signage around the school indicating where trash/recycling receptacles are and to remind students to use they. They will have pictures of trash/waste products and the *Anishinaabe* word for each as well. (Image 4.)

Image 1.

Image 2.

Image 3.

Image 4.

Estimated cost:

14 quart recycling container

Brute Recycling bin lids

40@ 6.51.....260.40

10 @ 15.95.....79.75 TOTAL 340.15

Ergo Can Two-Stream Recycling Station

10 @289.99.....2,899.90

Signage

12@ 30……360.00

TOTAL……$3600.05

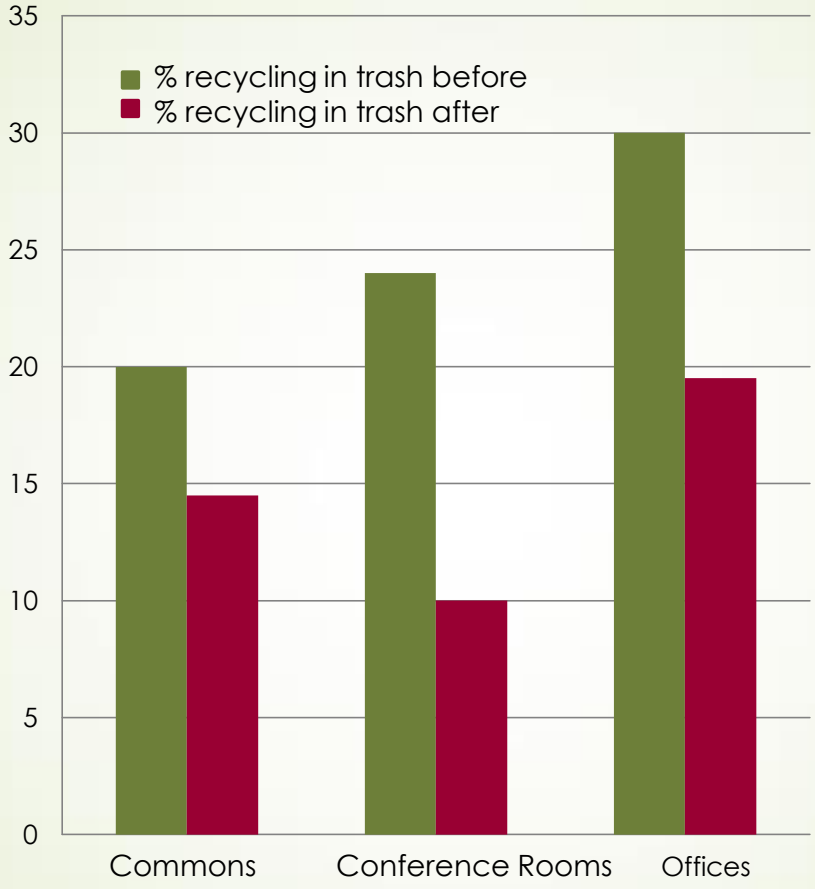
Conclusion: With the funding we have available this would be a feasible option and within our ability to enact. These implementations would benefit greatly by having a work-study student assigned to maintain the new recycling stations.

Improvement in Recycling at FDLTCC

The New Recycling Program is Making A Difference!

Face the Recycling Facts:

- Recycling one aluminum can saves enough energy to run your television for three hours.
- Recycling one glass bottle saves enough energy to light a 100-watt light bulb for four hours.
- In 2010, $2.8 billion worth of paper was thrown away, enough to cover 26,700 football fields 3 feet deep.
- If you laid all the aluminum cans that were recycled in 2010 end to end, they would circle the earth 169 times.



The bar graph above shows percentages of recyclables in the trash before the project and after the project. The overall average recycling rate improved by 41%. Data were collected from waste sorts done at FDLTCC in mid-May, 2014 and mid-October, 2014. What an improvement!

Project Overview:

A new recycling program has been in effect at FDLTCC since August 2014. New recycling bins with big, straightforward signs were set up to encourage better recycling habits from students and faculty. After only 2 months of the program, there was a significant decrease in the amount of recyclables found in the colleges' garbage. Keep up the good work and keep recycling!

Next Steps:

It is important to continue to increase recycling awareness throughout the college, especially in dorms, food service areas, and classrooms where there are a lot recyclables such as plastic bottles and paper.

Pilot Project Results

In October 2014, FDLTCC sent a link for a web-based follow-up questionnaire asking for student input about the new recycling stations and signage and to identify the barriers and benefits to recycling on campus still perceived by students. This questionnaire was the same questionnaire sent pre-pilot project in order to evaluate the pilot project consistently on document changes in recycling behaviors. Pre and post-pilot questionnaire highlights include the following:

- **Strongly agreed or agreed it's easy to recycle**
  Pre-pilot: 62%
  Post-pilot: 90%
- **Strongly agreed or agreed they understand how and what to recycle on campus**
  Pre-pilot: 76%
  Post-pilot: 89%
- **Always or usually recycle paper**
  Pre-pilot: 76%
  Post-pilot: 83%

Post –pilot student questionnaire responses also showed:

Awareness: Students have a high level awareness of the new recycling stations and signage on campus and most students have a desire to recycle.

Barriers: Some barriers expressed before the pilot project were resolved because additional recycling bins were put in strategic locations along with easy to understand visual signage that prompt them to recycle.

Benefits: Students are aware of a wide variety of benefits to recycling, including resource conservation, waste reduction, reduced pollution, and cost savings.