



EFFECTIVE COMMUNICATION MEDIA AND WHAT TO COMMUNICATE

by

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Behavior Team – Research Brief

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Background

As part of MSU Campus Sustainability efforts, the Behavior Team designed and implemented a campus-wide web-based survey. During November/December 2007, e-mail and postcard invitations to participate in a survey were sent to a stratified, random sample of 15,648 MSU students, staff, and faculty. The overall response rate of the study was 25% with community segments each having a different response rate - students 20%, staff 43%, and faculty 38%.

In an effort to inform communication efforts regarding the new campus recycling program, the web-survey included questions aimed at answering the following queries:

1. **What is the most effective medium for publicizing MSU recycling for the MSU community (students, staff, and faculty)?**
2. **On what should MSU recycling publicity focus for the various MSU segments?**

Publicity Options

As a result of input from the Communication Team, the survey was designed to ask respondents to consider five publicity options:

Posters	posters/flyers around campus, on bulletin boards, in mailboxes
Media ads	State News ads, billboards, radio spots, signs at events, campus TV
Technology publicity	text messaging, You Tube, My Space and Facebook, email, etc.
Personal contact	people, like mentors and building staff, to explain the new program
Promotions	recycling contests, competitions, t-shirt giveaways, etc.

The MSU community ranked their perceived effectiveness of the publicity options using a five-point scale from “very ineffective” to “very effective.” As Table 1 and Figure 1 show, the respondents rated all five publicity options as somewhat effective means for publicizing recycling on campus. In decreasing order of effectiveness, the MSU community in the aggregate ranked the publicity options as follows: personal contacts, posters, promotion, media ad, and technology publicity.

However, each of the three groups of MSU community members significantly differed in their relative ranking of media effectiveness. As Table 2 shows, differences within and between MSU groups in the relative ranking of media effectiveness were statistically different at the 1%-level. The analyses reveal that the different MSU constituencies have significantly different perceptions of the relative effectiveness of the alternative publicity options. For example, the results indicate that while students highly favor promotions (rank 1st), faculty and staff do not (rank 3rd and 2nd, respectively). Conversely, staff and faculty appear to most prefer personal contact (ranked 1st) as a means of effective publicity for recycling while students do not.

Recommendation: We recommend a publicity approach that differentiates publicity efforts based on the target audiences. While all publicity was viewed as potentially effective, it appears that students think that promotions would be most effective while faculty and staff do not. It does appear that personal contacts are most preferred by faculty and staff.

Recycling Knowledge

The survey also asked MSU respondents questions about their level of knowledge of MSU recycling and campus recycling efforts. Four questions specifically inquired about respondents' knowledge of:

Paper recycling	knowledge of paper products that may be recycled at MSU.
Environ. benefits	knowledge of environmental benefits of MSU recycling.
Recycling location	knowledge of places on campus where one can recycle.
Waste reduction	knowledge of waste-reduction strategies for the MSU campus

The MSU community ranked their own level of knowledge of the above items using a five-point scale from “not at all knowledgeable” to “very knowledgeable.” As Table 3 and Figure 2 illustrate, respondents report being generally aware of the environmental benefits associated with recycling but they indicate a lack of knowledge on where to recycle and what to recycle on the MSU campus.

In the aggregate, MSU community ranked their recycling knowledge, in descending order of awareness, as follows: environmental benefits, waste reduction strategies, paper recycle and recycle location (See Table 3). Tests of statistical differences across and within MSU faculty, staff, and students did not reveal significant differences in the relative ranking of the recycling knowledge items. For instance, knowledge of the different locations on MSU campus where materials can be recycled (ranked 4th) is the knowledge item most absent among MSU students, staff and faculty. Likewise, respondent knowledge of MSU paper recycling program also appears relatively low.

Respondents' Information Needs/Desires

Respondents were also asked to indicate their willingness to receive more information about the benefits of recycling as well as on how to recycle. That is, MSU community members ranked their level of agreement with the following two statements using a five-point scale from ‘strongly disagree’ to ‘strongly agree’.

“I would like to learn more about the benefits of recycling,” and

“I would like more information on how to recycle materials.”

As shown in Figure 3 and Table 4, respondents generally appear willing to receive information on both knowledge areas. The MSU community indicated a greater willingness to learn about how to recycle properly than about the benefits associated with recycling. There were no significant differences of willingness to learn more information within or across MSU campus segments. Perhaps, most respondents are already satisfied with their level of knowledge of environmental benefits of recycling and would prefer to learn how to recycle properly.

Recommendation: MSU communication efforts with MSU campus segments, based on these data, may wish to focus more on *what, how, and where to recycle* than *why to recycle*.

Table 1. MSU Community’s Mean Score of Perceived Effectiveness of Publicity Options (5-point scale: 1=very ineffective to 5=very effective)

Publicity Options	MSU Community	Students	Staff	Faculty
Personal contacts	3.70	3.84	3.88	3.70
Posters	3.48	3.66	3.72	3.48
Promotion	3.47	4.11	3.79	3.47
Media ads	3.44	3.76	3.67	3.45
Technology	3.38	3.62	3.58	3.39

Table 2. Comparison of Media Effectiveness Ranking by MSU Group*

Students		Staff		Faculty	
1 st	Promotions	1 st	Personal Contact	1 st	Personal Contact
2 nd	Personal Contact	2 nd	Promotions	2 nd	Posters
3 rd	Media Ads	3 rd	Posters	3 rd	Promotions
4 th	Posters		Media Ads		Media Ads
	Technology	Technology	Technology		

* Between group differences are significant, p<.01;
 Within group, each rank (1st , 2nd, etc.) is significantly different, p<.01

Table 3 MSU Community's Mean Score of Level of Awareness of Various Recycling Issues*
(5-point scale: 1= Not at all knowledgeable to 5= very knowledgeable)

Level of knowledge	MSU Community	Rank
Environmental benefits	3.79	1st
Waste reduction	3.15	2nd
Paper recycle	2.59	3rd
Recycle location	2.36	4th

* Within group, each rank is significantly different, $p < .01$

Table 4. MSU Community's Mean Score of Level of Willingness to Learn about Recycling*
(5-point scale: 1= Strongly disagree to 5= Strongly agree)

Like to learn more about	MSU Community	Rank
How to recycle properly	3.58	1st
Recycling environmental benefits	3.05	2nd

* Within group, each rank is significantly different, $p < .01$

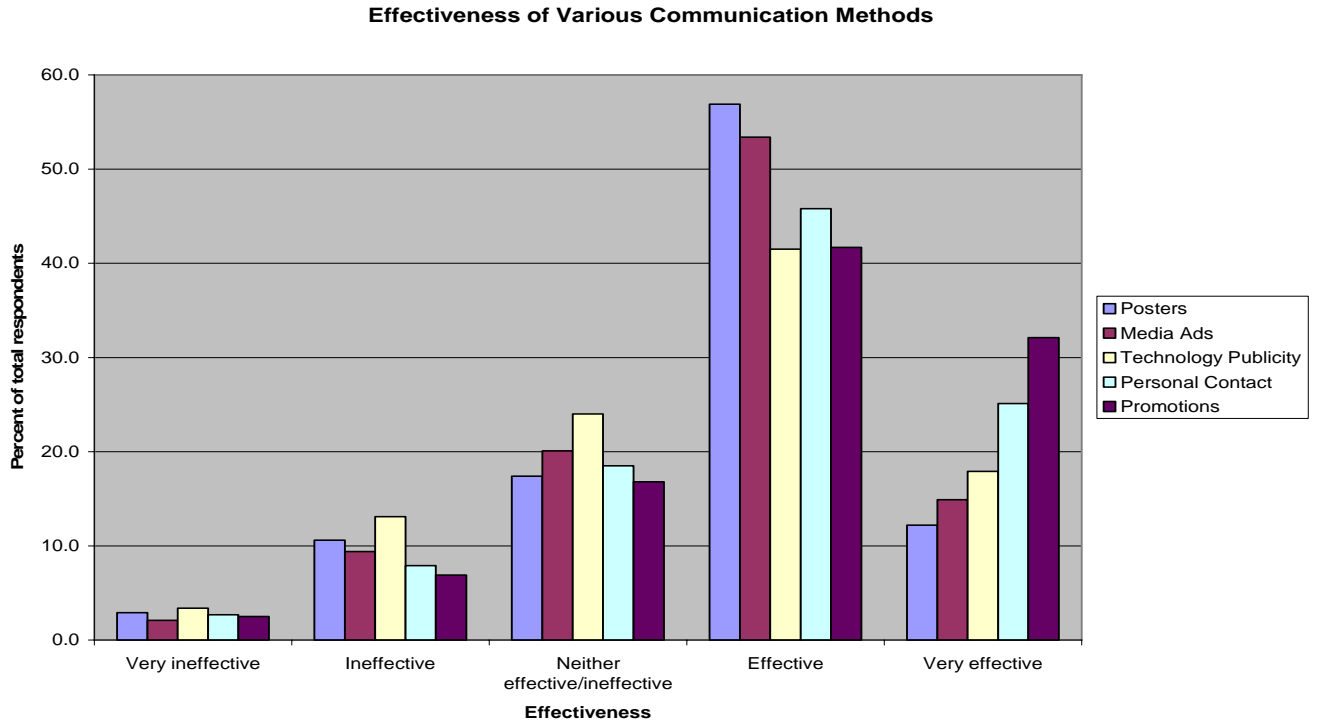


Fig. 1. MSU community’s perceived effectiveness of various publicity options

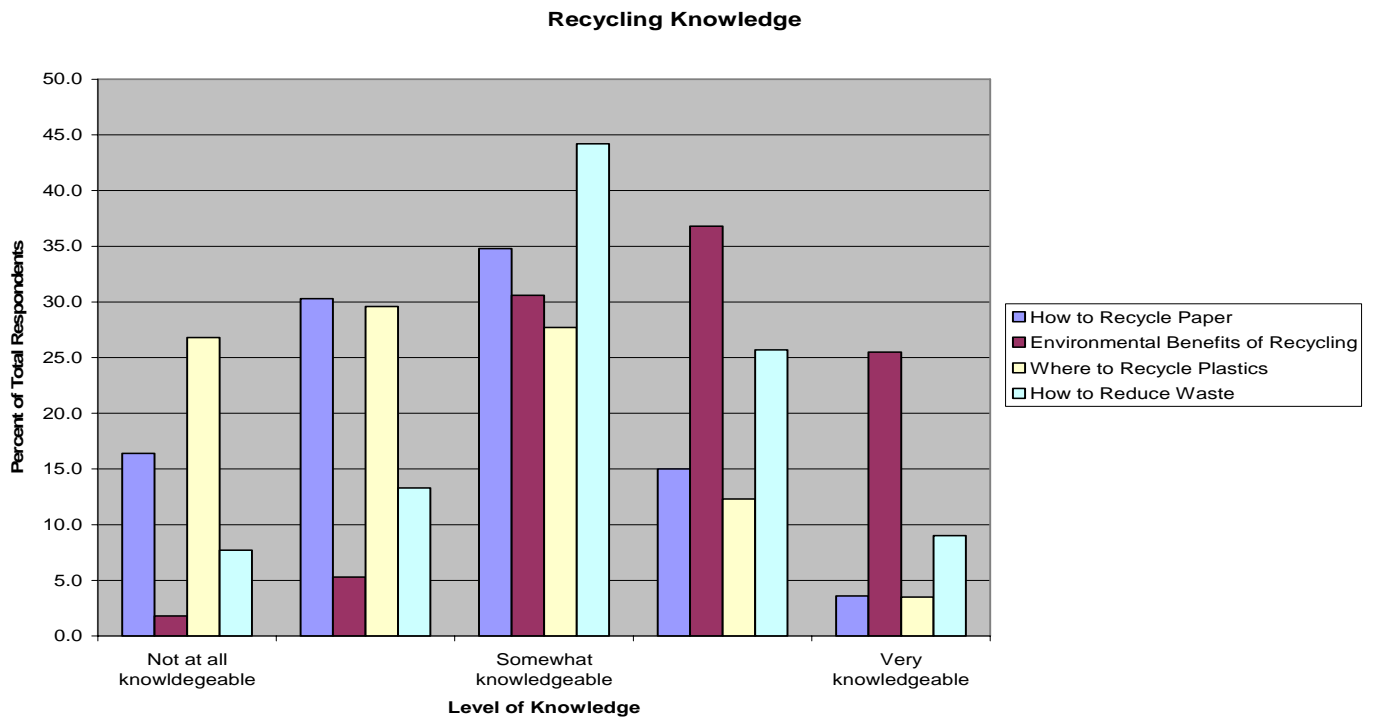


Fig. 2 MSU community’s level of knowledge on various recycling issues

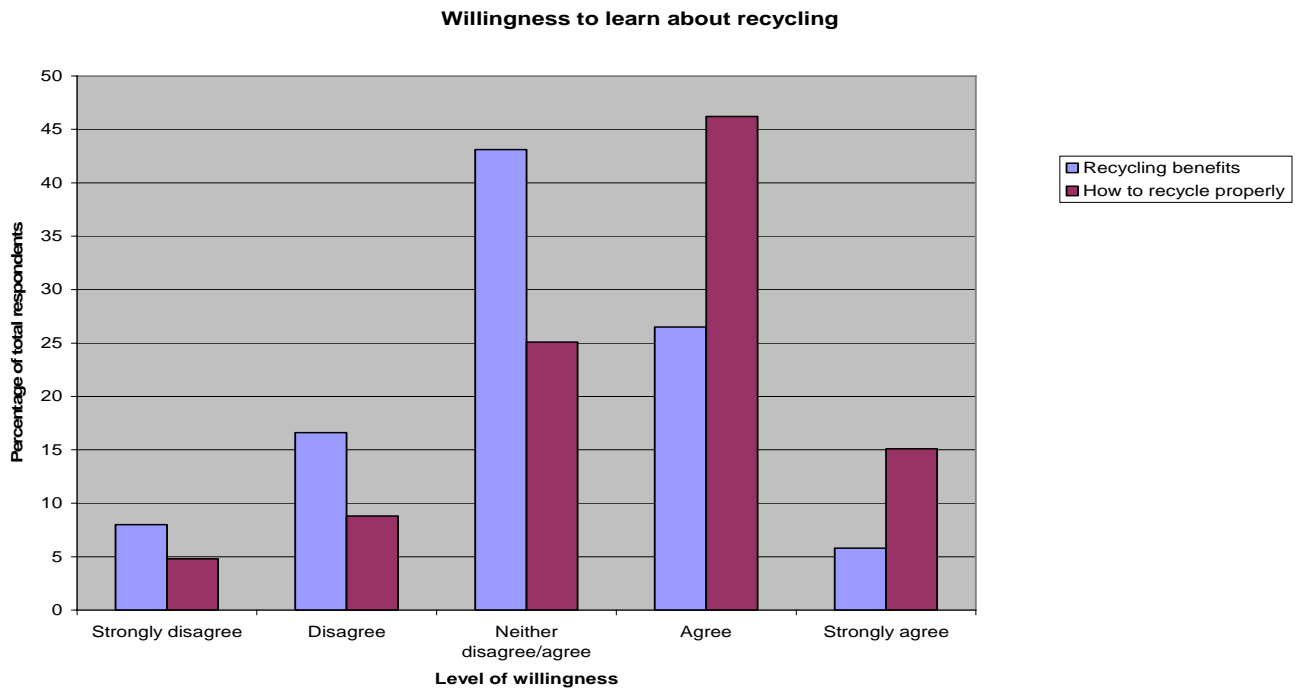


Fig. 3 MSU community’s level of willingness to learn about recycling

ADDENDUM TO BEHAVIOR TEAM RESEARCH BRIEF OF FEB. 18, 2008

In response to feedbacks to our presentation and research brief of February 2008, the Team undertook some additional analyses. Specifically, we tried to answer questions raised by the communication team about possible differences between students living on-campus and those living off-campus as well as explore for possible differences between undergraduate and graduate students. These analyses were carried out focusing on survey responses concerning the perceived effectiveness of publicity options and respondents' self-assessment of their recycling knowledge. We also examined an additional survey item concerning respondents' perception of the most effective means for increasing recycling.

Publicity Options

On a five point scale from very ineffective to very effective, respondents ranked their perceived effectiveness of five publicity options. In the aggregate, students deemed all five publicity options to be effective and ranked them in decreasing order of effectiveness as follows: promotion, personal contacts, media ads, posters and technology (See Research Brief 2/18/2008 for more details). In response to a request to examine for differences between on and off-campus students as well as undergraduate versus graduate students, we undertook additional data analyses.

As Table 1 illustrates, the top three communication options were ranked the same for undergraduates and graduates students. However, the analysis revealed significantly different perceptions of the relative effectiveness of personal contacts between undergraduate and graduate students. The results indicate that, undergraduates (73%) perceived personal contacts to be more effective than graduate students (65%). Also, there does seem to be a few differences with the perception of effective communication options for students living on-campus and off-campus students as shown in Table 2. Off-campus students perceive media ads to be more effective than those living on-campus with about 75% deeming it effective relative to 66% for students living on-campus. **Therefore, there may be some rationale for using media ads for publicizing MSU recycling to students living off-campus** in addition to promotions and personal contacts, the communication options ranked as most effective by all students.

Recycling Knowledge

An examination of similarities/differences between undergraduate and graduate students as well as off-campus and on-campus students revealed some differences in their self-assessment of recycling knowledge. **Graduate students reported a significantly lower level of knowledge about the range of paper products that can be recycled at MSU and the waste reduction strategies on campus compared to undergraduate students.** Graduate students and undergraduate students did not differ significantly in their relative level of knowledge on the environmental benefits associated with recycling and the different places on campus where materials could be recycled when tested for statistical differences.

Students living off-campus reported a relatively lower level of knowledge on the range of paper products that can be recycled at MSU compared to their on-campus colleagues with about 16%

indicating being knowledgeable compared to 20% for students living on-campus. Knowledge of recycling location and the range of paper products that can be recycled was generally low among all the student categories.

Respondents Information Needs/Desires

An examination of student respondents' indication of a desire for more information on how to recycle as well as the benefits of recycling revealed some differences between undergraduate and graduate students groups. The analysis reveals that graduate students are significantly different from undergraduates in their relative willingness to receive information. **That is, graduate students appear more willing to receive information about how to recycle properly and the benefits of recycling than undergraduate students.** Recall, that they also reported significantly lower levels of knowledge on the range of paper products that can be recycled and the waste reduction strategies at MSU relative to undergraduate students. Students living on-campus and students living off-campus did not differ significantly in their relative willingness to receive information on both how to recycle properly and the benefits associated with recycling.

NEW ITEM OF ANALYSIS

How to Increase Recycling

Respondents were asked to indicate which one option in a list of five possible measures they believed would be most effective to increase recycling at MSU. The five measures for increasing campus recycling that respondents were asked to consider were:

- **More recycling containers around campus**
- **Competitions between the different colleges**
- **Competitions between different buildings**
- **Peers and colleagues that regularly recycle**
- **Regular updates and tips on the program**

As shown in Figure 1, the MSU respondents in the aggregate indicated that “**more recycling containers around campus**” would be the most effective option for increasing campus recycling. When broken down by MSU community segments (students, faculty and staff) we find the same thing for each group. There was no difference between students living on-campus and those off-campus as well as undergraduate and graduate students for this item.

However, it does appear that faculty and staff differ from students in their perception of the effectiveness of “**regular updates and tips**” for increasing MSU recycling. **Unlike students, faculty and staff appear to see update and tips as a viable second option for increasing recycling** (Figure 1).

Table 1. Comparison of Media Effectiveness Ranking by MSU Student Categories*

All Students		Undergraduates		Graduate students	
1st	Promotion	1st	Promotion	1st	Promotion
2nd	Personal contacts	2nd	Personal contacts		Personal contacts
3rd	Media ads	3rd	Media ads	2nd	Media ads
4th	Posters	4th	Posters		Posters
	Technology		Technology	3rd	Technology

*Within group, each rank (1st, 2nd, etc.) is significantly different, $p < .01$

Table 2. Comparison of Media Effectiveness Ranking by MSU Student Categories*

Students living on-campus		Students living off-campus	
1st	Promotion	1st	Promotion
2nd	Personal contacts	2nd	Media ads
	Posters		Personal contacts
3rd	Media ads	3rd	Posters
	Technology		Technology

*Within group, each rank (1st, 2nd, etc.) is significantly different, $p < .01$

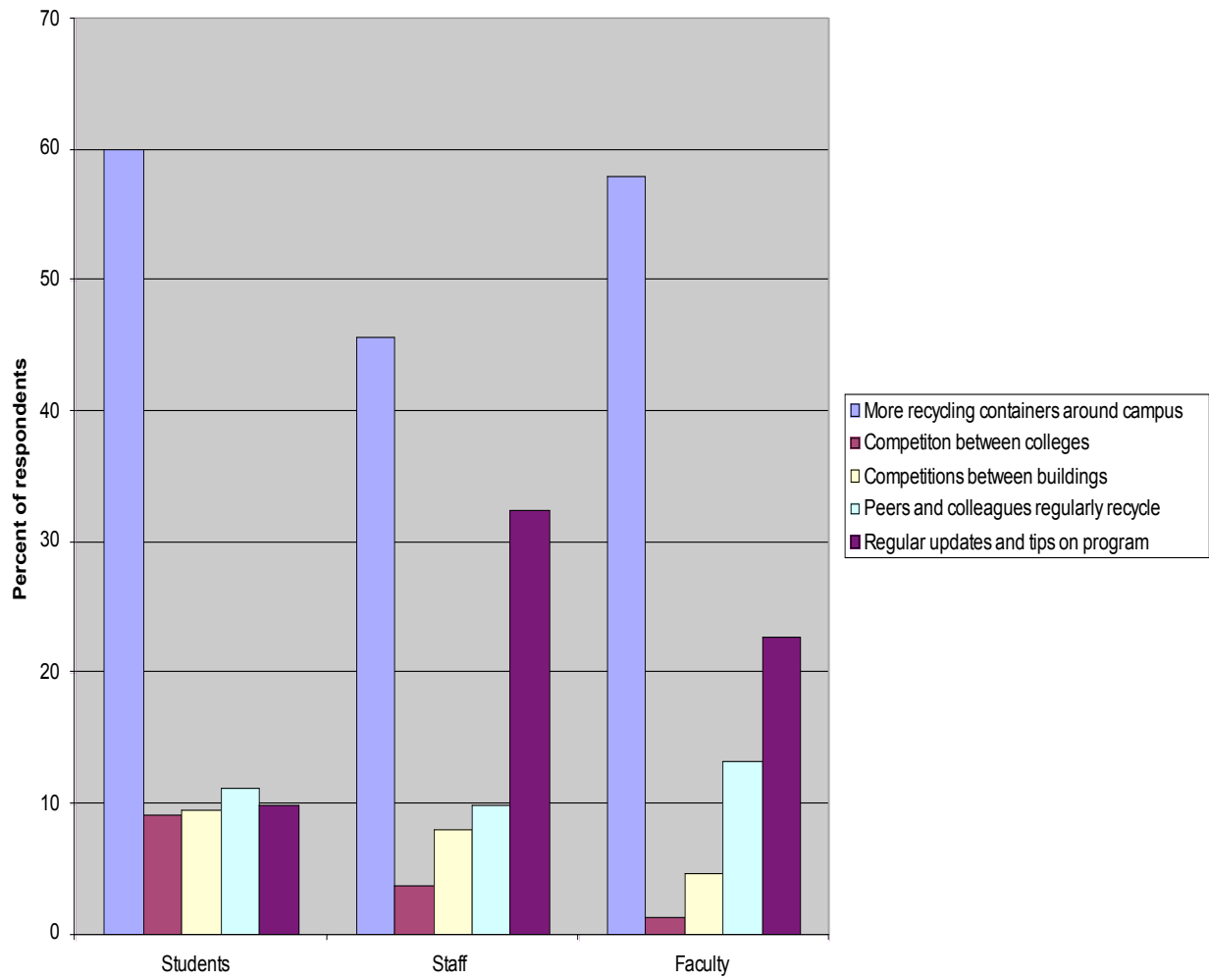


Fig.1. MSU community’s perception of what will increase recycling most